Limit switches XC Standard range

Catalogue



Simply easy!™



Limit switches XC Standard range

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XC Basic

- Miniature d Complete
- Miniature de Complete
- Compact de Complete
- Complete
- Compact de Complete

- Metal, XCk Complete
 - Metal, XCK Complete
- Metal, 2 x 2-Complete
- Metal, XCK Variable
- Adaptabl

- Plastic, dou
 - Complete
 - Variable
- Adaptabl

XC Standard, industrial EN 50041 format

- Metal, XCk
 - Complet
 - Fixed b
 - Fixed b - Fixed b
 - Variable
 - Adaptab
 - Bodies,
 - For low
 - For high

Product re





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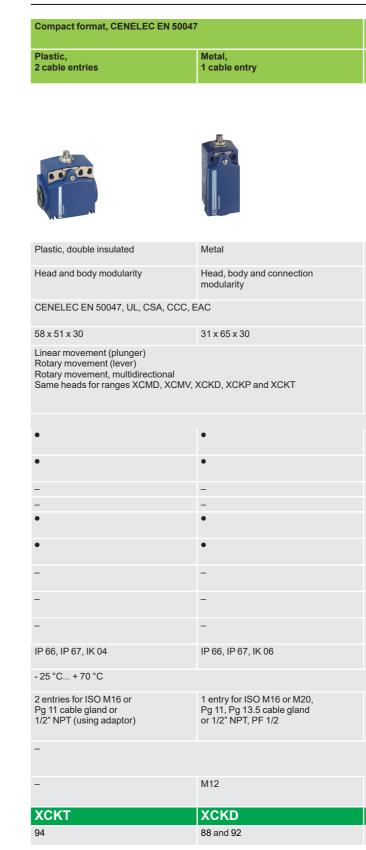
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Selection guide

Limit switches

XC Standard range

Design/Applications		Miniature format	Miniature format for mobile equipments	Compact format, CENELEC EN 50047
		Metal, pre-cabled	Metal, pre-cabled	Plastic, 1 cable entry
Enclosure		Metal	Metal	Plastic, double insulated
Modularity		Head, body and connection modularity	Head and body modularity	Head, body and cable entry modularity
Conformity/Certifications		C€, UL, CSA, CCC, EAC	CE, UL, CSA	CENELEC EN 50047 UL, CSA, CCC, EAC
Body dimensions (w x h x	d) in mm	30 x 50 x 16	30 x 50 x 20.5	31 x 65 x 30
Contact blocks		Rotary movement (lever) Rotary movement, multidirect Same heads for ranges XCM	ional D, XCMV, XCKD, XCKP and XCKT	r
2 electrically separate contacts	snap action with positive opening operation	•	•	•
	slow break with positive opening operation	•	•	•
2 same polarity contacts	snap action	-	-	-
	slow break	-	-	-
3 electrically separate contacts	snap action with positive opening operation	•	-	•
	slow break with positive opening operation	•	-	•
4 electrically separate contacts	snap action with positive opening operation	•	-	-
	slow break with positive opening operation	-	-	-
4 contacts (2 x 2 same polarity contacts)	snap action	-	•	-
Degree of protection IP/IK		IP 66, IP 67, IP 68, IK 06	IP 66, IP 67, IP 69, IK 04, IK 06 depending on model	IP 66, IP 67, IK 04,
Operating temperature		- 25 °C + 70 °C, -40°C depe	nding on heads	
Raccordement Screw terminals		-	-	1 entry for ISO M16 or M20, Pg 11, Pg 13.5 cable gland or 1/2" NPT, PF 1/2
Pre-cable		Ø 7.5 PvR, CEI, halogen free, depending on model	Ø 6,4 PvR	-
Connector		Integral or remote M12 or remote 7/8"-16UN	M12, Deutsch DT04-4P or AMP Superseal 1.5	M12
Type reference		XCMD	XCMV	ХСКР





Compact format, with reset	
Plastic, 1 cable entry	Plastic, 2 cable entries
Plastic, double insulated	
-	
CE, UL, CSA, EAC	
31 x 65 x 30	58 x 51 x 30
Linear movement (plunger) Rotary movement (lever)	
•	•
•	•
-	-
-	-
-	-
-	-
-	-
-	-
IP 66, IP 67, IK 04	
1 entry for ISO M20 or Pg 13.5 cable gland or 1/2" NPT	2 entries for ISO M16 or Pg 11 cable gland or 1/2" NPT (using adaptor)
-	
XCPR	XCTR
104	106

Limit switches XC Standard range

Selection guide

Design	esign		"Classic" format		Industrial EN 50041 format	
			Metal, 3 cable entries	Metal, 1 cable entry	Plastic, 1 cable entry	Metal, 1 cable entry or connector
Enclosure			Metal		Plastic, double insulated	Metal
Modularity			Head, body and oper	ator modularity	าเวินเลเซิน	
Conformity/Ce	rtifications		CE, UL, CSA, CCC, EAC	CE, UL, CSA, EAC	CENELEC EN 5004 UL, CSA, CCC, EAC	
Body dimensio	ons (w x h x	d) in mm	63 x 64 x 30	52 x 72 x 30	40 x 72.5 x 36	40 x 77 x 44 42.5 x 84 x 36
Head			Linear movement (pl Rotary movement (le Rotary movement, m	ver)		
Contact blocks 2 electrically sep		snap action with positive				
contacts	Jarace	opening operation slow break with positive	•	•	•	•
• • • •		opening operation				
2 same polarity (contacts	snap action slow break	-	-	-	•
3 electrically sep	parate	snap action with positive	•	•	•	•
contacts	Jarato	opening operation slow break with positive	•	•	•	•
		opening operation				
4 electrically sep contacts	oarate	snap action with positive opening operation	-	-	-	-
		slow break with positive opening operation	-	_	_	-
4 contacts (2 x 2 polarity contacts		snap action	-	-	•	•
Degree of prote	ection IP/IK		IP 66, IK 06		IP 65, IK 03	IP 66, IK 07
Operating temperature		- 25°C + 70°C			- 25°C + 70°C - 40°C or + 120°C depending on mode	
Connection	Screw ter (entry for	minals cable gland)	3 entries for ISO M20 Pg 11 cable gland or 1/2" NPT	 1 entry incorporating cable gland or tapped 1/2" NPT 	1 entry for ISO M20, Pg 13.5 cable gland or 1/2" NPT	1 entry for ISO M20, Pg 13.5 cable gland or 1/2" NPT
	Pre-cable	d	-			
	Connecto	r	-			Integral M12 or 7/8"-16UN
			ХСКМ	XCKL	XCKS	ХСКЈ
Type reference			ACIUM			

Miniature format		Compact format EN 50	047	Compact format, with reserved
Plastic, pre-cabled		Plastic, 1 cable entry	Plastic, 2 cable entries	Plastic, 1 cable entry
Plastic, double insulated				
-				
CE, cULus, CCC	C€, UL, CSA, CCC, EAC	CENELEC EN 50047, U	L, CSA, CCC, EAC	C€, UL, CSA, CCC, EAC
30 x 50 x 16	30 x 50 x 16	31 x 65 x 30	59 x 51 x 30	31 x 65 x 30
Linear movement (plunger) Rotary movement (lever) Rotary movement, multidirecti	onal			
•	•	•	•	•
-	-	•	•	•
•	-	-	-	-
-	-	-	•	-
-	-	•	-	•
-	-	•	-	•
-	-	-	-	
-	-	-	-	
-	-	-	-	
IP 66, IP 67, IK 04	IP 65, IK 04			
- 25 °C + 70 °C				
-	-	1 entry for ISO M20 or Pg 11 cable gland Other cable entries: ISO M16 x 1.5 or PF 1/2 (G1/2)	2 entries for ISO M16 or Pg 11 cable gland or 1/2" NPT (using adaptor)	1 entry for ISO M20 or Pg 11 cable gland Other cable entries: ISO M16 x 1.5 or PF 1/2 (G1/2)
Ø 4.2 mm PvR, lateral or axial cable output, depending on model	Ø 7.5 PvR, CEI, halogen free, depending on model	-		
хсмн	XCMN	XCKN	XCNT	XCNR
				118

Telemecanique Sensors

Limit switches XC Basic range

Selection guide

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Limit switches XC Special range

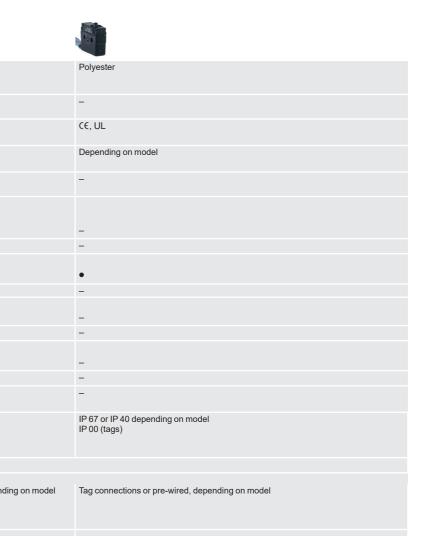
Design/Applications	Very severe applications	For hoisting and material handling applications (XCR); for conveyor belt shift monitoring (XCRT)	For hoisting and material handling applications
	Metal, 1 cable entry	Metal or polyester, 1 cable entry	Metal or plastic, 3 cable entries
Enclosure	Metal	Metal or polyester	Metal or plastic
Modularity	Head and body modularity	-	-
Conformity/Certifications	CE, UL, CSA, EAC	C€, CSA (XCR) CCC (XCR), EAC	CE, UL, CSA, CCC, EAC
Body dimensions (w x h x d) in mm	40 x 81 x 41	85 x 95 x 75	118 x 77 x 59 (metal) 118 x 77 x 67 (plastic)
Head	Linear movement (plunger) or rotary movement (lever)	Rotary movement (lever)	Rotary movement (lever)
Contact blocks			
2 electrically separate contacts			
snap action with positive opening operation	-	-	-
slow break with positive opening operation 2 same polarity contacts	-	-	-
	•		
snap action slow break	-	-	-
3 electrically separate contacts	-	-	-
	-	_	_
	-	-	_
4 electrically separate contacts			
	-	•	
	-	•	•
	•	•	-
Degree of protection IP/IK	IP 65, IK 08	IP 54, IK 07 or IP 65, depending on model	IP 66, IK 07 (metal) IP 65, IK 04 (plastic)
Operating temperature	- 25°C + 70°C; - 40° C or + 120° C (XC2J depending on r	nodel)	
Connection Screw terminals (entry for cable gland)	1 entry with integral cable gland	1 tapped entry for Pg 13.5 cable gland	3 tapped entries for Pg 13.5 cable gland or tapped M20 x 1.5, dependir
Pre-cabled	_		
	-		
Type reference	XC2J	XCR	XCKMR
		XCRT	XCKVR





Subminiature format and microswitch. Applications requiring high precision and a low operating force

Plastic, pre-cabled



XEP

Selection guide

Safety detection solutions XCS safety switches

Switch type	XCS safety limit switches	
Applications	Protection of operators by stopping the machine when the gate is opened. All machines with quick rundown time.	
Design	Miniature format	Compact format
	Pre-cabled	With 1 cable entry

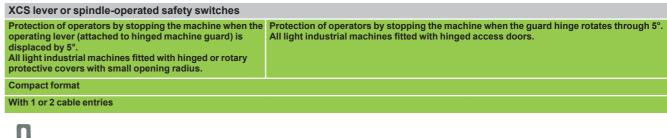




Metal

Case			Metal	Plastic
Features			-	
Conformity to standards	Products		EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 6	62061, UL
	Machine assemblies		EN/IEC 60204-1, EN/ISO 14119	
Product certifications			UL, CSA, CCC, EAC	
Dimensions	Switch		30 x 50 x 16	31 x 34 x
(w x h x d) in mm	Fixings	Centers	20	20/22
Head			Plunger or rotary head Head adjustable in 15° steps through 360° Linear (plunger) or rotary (lever) actuation.	
Contact blocks			NC contacts with positive opening operation	
			2 NC + 1 NO break before make, slow break 2 NC + 1 NO and 2 NC + 2 NO snap action	XCSD: 2 break or XCSP: 2
Degree of protection			IP 66, IP 67 and IP 68	IP 66 an
Ambient air temperature	For operation		-25+70 °C	
Connection	Screw terminals (cable entry via cable	e gland)	-	Tapped e or tapped
	Pre-cabled		L = 1, 2 or 5 m	-
Type reference			XCSM	XCSP
Pages			Please refer to our catalogue "Safety switches	SXCS rang

XCSM	XCSP	XCSD	
– L = 1, 2 or 5 m	Tapped entry for Pg 13. or tapped 1/2" NPT	5, ISO M20 cable gland	
-25+70 °C			
IP 66, IP 67 and IP 68	IP 66 and IP 67		
2 NC + 1 NO break before make, slow break 2 NC + 1 NO and 2 NC + 2 NO snap action	XCSD: 2 NC + 1 NO br break or snap action XCSP: 2 NC + 1 NO sr	reak before make, slow nap action	
NC contacts with positive opening operation			
Plunger or rotary head Head adjustable in 15° steps through 360° Linear (plunger) or rotary (lever) actuation.			
20	20/22		
30 x 50 x 16	31 x 34 x 89		
UL, CSA, CCC, EAC			
EN/IEC 60204-1, EN/ISO 14119			
EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061, UL 508, CSA C22-2 no. 14			
-			







Plastic, double insulated

2 types of lever: straight or elbowed (flush with rear of switch) 3 lever positions: to left, center or to right

XCSPL	XCSPR	
-	-	
1 tapped entry for Pg 11, ISO M16 cable gland or tapped 1/2" NPT	1 tapped entry fo tapped 1/2" NPT	
-25+70 °C		
IP 67		
1 NC + 1 NO break before make 2 NC 1 NC + 2 NO break before make 2 NC + 1 NO break before make	1 NC + 1 NO bre 2 NC 1 NC + 2 NO bre 2 NC + 1 NO bre	
Slow break safety contacts with positive opening operation NC contacts open when lever or spindle displaced by more than 5°		
Turret head: 4 positions Rotary actuation (lever)	Turret head: 4 po Rotary actuation	
20/22	20/22	
30 x 87.5 x 30	30 x 96 x 30	
UL, CSA, CCC, EAC		
EN/IEC 60204-1, EN/ISO 14119		
EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061, UL 508, CSA C22-2 no.14,		

Please refer to our catalogue "Safety switches XCS range".







	XCSTR
r Pg 11, ISO M16 cable gland or	2 tapped entries for Pg 11, ISO M16 cable gland or tapped 1/2" NPT
ak before make ak before make ak before make	1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC
sitions (spindle)	
	20/22 or 40.3
	52 x 117 x 30
IIS C4520	
e: length 30 mm or 80 mm	

Selection guide (continued)

Safety detection solutions XCS safety switches

Switch type Applications Design

XCS key-operated safety switches	
Protection of operators by stopping the machine when the actuating key (attached to machine guard) is withdrawn from the head of the switch. All light industrial machines with quick rundown time (1).	
Miniature format Compact format	
Pre-cabled	With 1 or 2 cable entries





Case		Plastic		
Features		Without locking of actuating key.	Without locking of actuating ke Optional accessory: guard reta	
Conformity to standards	Products	EN/IEC 60947-5-1, EN/ISO 13	3849-1, EN/IEC 62061, UL 508, C	CSA C22-2 no. 14
	Machine assemblies	EN/IEC 60204-1, EN/ISO 1417	19	
Product certifications		cULus	UL, CSA, CCC, EAC	
Dimensions	Switch	30 x 87 x 15	30 x 93.5 x 30	52 x 114.5 x 30
(w x h x d) in mm	Fixings	Centers: 20/22	Centers: 20/22	Centers: 20/22 or 40.3
Head		Fixed head: 2 positions for insertion of actuating key.	Turret head: 8 positions for inse	ertion of actuating key.
Contact blocks		Safety contacts actuated by th Slow break and NC positive op		
		1 NC + 1 NO break before make 2 NC 2 NC + 1 NO break before make 3 NC	1 NC + 1 NO slow break contacts, break before make or make before break, or snap action 2 NC slow break or snap action 2 NC + 1 NO slow break contacts, break before make, or snap action 1 NC + 2 NO slow break contacts, break before make, or snap action	1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC
Degree of protection		IP 67		
Ambient air temperature	For operation	-25+70 °C		
Connection	Screw terminals (cable entry via cable gland)	-	Tapped entry for Pg 11, ISO M ⁻ NPT	16 cable gland or tapped 1/2"
	Pre-cabled	L = 2, 5 or 10 m	-	-
Type reference		XCSMP	XCSPA	XCSTA
Pages		Please refer to our catalogue	"Safety switches XCS range".	

XCS key-operated safety switches All heavy industrial machines with quick rundown time (1) Industrial format with or without locking With 1 cable entry, without locking





Metal	
Without locking of actuating key.	N a m s
EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061, UL 508, CSA C22-2 no.	14
EN/IEC 60204-1, EN/ISO 14119	
UL, CSA, CCC, EAC	
40 x 113.5 x 44	5
30 x 60	3
Turret head: 8 positions for insertion of actuating key.	Т
Safety contacts actuated by the actuating key. Slow break and NC positive opening operation.	S
1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC	1 2 3
IP 67	
-25+70 °C	

IP	٥ <i>١</i>	

Screw clamp terminals. Tapped entry for Pg 13.5, ISO M20 cable gland or tapped 1/2" NPT	S IS
-	-

XCSA	X
Please refer to our catalogue "Safety switches XCS range".	

(1) Machine stopping time less than time taken for operator to access hazardous zone.



With 1 cable entry and manual locking/unlocking





Manual locking and unlocking of actuating key by pushbutton (can be mounted on left or right-hand side of switch head).

Manual locking and unlocking of actuating key by key-operated lock (can be mounted on left or right-hand side of switch head).

52 x 113.5 x 44

30 x 60

Turret head: 8 positions for insertion of actuating key.

Safety contacts actuated by the actuating key. Slow break and NC positive opening operation.

1 NC + 2 NO break before make 2 NC + 1 NO break before make

3 NC

Screw clamp terminals. Tapped entry for Pg 13.5 cable gland, ISO M20 or tapped 1/2" NPT.

CSB

XCSC

Selection guide (continued)

Safety detection solutions

XCS safety switches

Switch type Applications

Design

Case

Features

Conformity to standards

Product certifications

Resistance to forcible

Degree of protection Ambient air temperature

Connection

Pages

Type reference

withdrawal of the actuator

Contact blocks or outputs

Dimensions (w x h x d or Ø) in mm

Head

Products Machine a

Switch

Fixings

F_{1max}

Main cont

Auxiliary

For operat For storag

Terminals Connector

Fzh

XCS key-operated safety switches, locking and unlocking by solenoid Protection of operators by stopping the machine when the actuating key (attached to machine guard) is withdrawn from the head of the switch. All industrial machines with long rundown time (1) Slim format With 3 cable entries With 3 cable entries



Locking and unlocking of actuating key using

a solenoid (either on energization or on

Manual unlocking (auxiliary release using special tool) of actuating key in abnormal

de-energization).

conditions.



Locking and unlocking of actuating key by solenoid (either on energization or on de-energization). Manual unlocking (auxiliary release using key lock) of actuating key in abnormal conditions.

1 Émergency release mushroom head XCSLF000600).

EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061, UL 508 and CSA C22-2 no. 14

assemblies	EN/IEC 60204-1, EN/ISO 14119		
	UL, CSA, CCC, EAC		
	51 x 205 x 43.5		
Centers	30 x 153.3		
	Turret head: 8 positions for insertion of actuating	ı key.	
	1400 N	3000 N	
	1100 N	2300 N	
	Main safety contacts actuated by the actuating Contact states given with key inserted and sole Slow break and NC positive opening operation	noid not energized.	
tacts	1 NC + 1 NO break before make 2 NC 1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC		
contacts	1 NC + 1 NO break before make 2 NC 1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC		
	IP 66/IP 67		
ation	-25+60 °C		
ge	-40+70 °C		
\$	Spring terminals, 3 cable entries. Tapped entry for ISO M20 cable gland or tappe	d 1/2" NPT.	
r	M23 (18 + 1 PE)		
	XCSLE	XCSLF	

Please refer to our catalogue "Safety switches XCS range"

XCS key-operated safety switches, locking and unlocking by solenoid (continued) Protection of operators by stopping the machine when the actuating key (attached to machine guard) is withdrawn from the head of the switch. All industrial machines with long rundown time (1)

Rectangular

Plastic, double insulated

Locking and unlocking of actuator by solenoid (either on de-energization or on Locking and unlocking of actuating key by solenoid (either on energization or on energization). Manual unlocking (auxiliary release using special tool) of actuating key in abnormal conditions. de-energization). Manual unlocking (auxiliary release using key lock) of actuating key in abnormal conditions.

EN/IEC 60204-1, EN/ISO 14119	
UL, CSA, CCC, EAC	UL, CSA, CCC, EAC
110 x 93.5 x 33	98 x 146 x 44
30 x 153.3	88 x 95
Turret head: 8 positions for insertion of actuating key	
650 N	2600 N
500 N	2000 N
Main safety contacts actuated by the actuating key; auxiliary contacts act Slow break and NC positive opening operation	uated by solenoid.
1 NC + 1 NO break before make 1 NC + 1 NO make before break 2 NC	1 NC + 2 NO break before make 2 NC + 1 NO break before make 3 NC
1 NC	1 NC + 1 NO 2 NC
IP 67	
-25+60 °C	-25+40 °C
-40+70 °C	-40+70 °C
Tapped entry for Pg 11 ISO M16 cable gland or tapped 1/2" NPT	Screw clamp terminals. 2 tapped entries for Pg 13.5 ISO M20 cable gland or tapped 1/2" NPT.
-	-
	XCSE
XCSTE	

(1) Machine stopping time greater than time taken for operator to access hazardous zone.





With 2 cable entries



Metal

Selection guide (continued)

Safety detection solutions XCS safety switches

Switch type Applications

Design

Case

XCSR contactless RFID safety switches

Highly tamper-proof protection of operators by stopping the machine when the gate is opened (transfer lines, assembly lines, automated equipment, machine tools, etc.). All light industrial machines fitted with access gates with imprecise guidance and/or subjected to frequent washing, shocks and vibrations. This safety switch is suitable for machine with low inertia. **Rectangular format**

M12 connector





a	

Case			Thermoplastic housing (Valox 1	ГМ)			
Features			Contactless system composed of a microprocessor-controlled switch and a transponder factory-paired with a unique code. Multiposition sensor transponder.				
	Assured opera distance (Sao		15 mm				
	Assured relea	ase distance (Sar)	35 mm				
	Type of switch	٦	Standalone RFID switch	Daisy-chain RFID switch for direct series connection	Single RFID switch for point-to-point connection		
	Operating mo	de	Possible functioning without association with a safety control unit (Integrated External Device Monitoring (EDM) and Start/Restart function)	Functioning in combination wir PL=e/Cat4 - SIL 3	th a safety control unit		
Conformity to standards	Products		EN/IEC 60947-5-2, EN/IEC 609 SIL 3 (IEC 61508), SILCL 3 (IEC		3849-1)		
	Machine asse	emblies	EN/IEC 60204-1, EN/ISO 1411	9			
	RFID protocol	I	Based on ISO 15693				
Product certifications			CE, cULus, TÜV, FCC, EAC, IC	, RCM, E2, ECOLAB			
Dimensions	Switch		30 x 108.3 x 15	30 x 118.6 x 5	30 x 108.3 x 15		
(w x h x d or Ø) in mm	Transponder		50 x 15 x 15				
	Fixings	Centers	-				
		Reader	7478				
		Transponder	3034				
Contact blocks	Safety output		2 OSSDs (Safety outputs PNP	NO). OSSDs are in the ON stat	e when the gate is closed		
or outputs			Maximum current 400mA	Maximum current 200 mA			
	Contact states of magnet	s given in presence	-				
			-				
Degree of protection	-	EN1//EQ 00500	-				
	Conforming to Conforming to	DIN 40050	IP 65, IP 66, IP 67 IP 69K				
Ambient air temperature	For operation		-25+70 °C				
Ampentan temperature	For storage		-25+70 C -40+85 °C				
Connection	Pre-cabled		_				
Connection	Connector		-				
		ENUISO 00047 5 0	1 M12 8-pin connector	2 M12 5-pin connector	1 M12 5-pin connector		
	Conforming to A3 and EN/IEC		(A coding)	(A coding)	(A coding)		

XCS safety coded magnetic safety switches for detection without Protection of operators by stopping the machine when the gate is opened All light industrial machines fitted with access gates with imprecise guidan This Safety sensor is suitable for machine with low inertia.

Miniature rectangular format	Compact rectangular for		
Pre-cabled or M8 connector on flying lead	Pre-cabled or M12 conne		





Plastic

approach directions		1 approach direction
nm	8 mm	
mm	20 mm	
I/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061,	UL 508 and CSA C22-2 no. 14	
I/IEC 60204-1, EN/ISO 14119		
., CSA, EAC, ECOLAB		
x 51 x 7	25 x 88 x 13	Ø 30, L 38.5
	78	_
	10	-
NC + 1 NO staggered NC staggered dependent Reed-type contacts operated by coded agnet.	1 NC + 1 NO staggered 2 NC staggered 2 NC + 1 NO (NC staggered) 1 NC + 2 NO (NO staggered)	1 NC + 1 NO staggered 2 NC staggered
be used with safety control units.		
66 and IP 67 for pre-cabled version, IP 67 for conne	ector on flying lead version	
5+85 °C		
= 2, 5 or 10 m		
3, on 0.15 m flying lead	M12, on 0.15 m flying lead	
	-	-
CSDMC	XCSDMP	XCSDMR
ase refer to our catalogue "Safety switches XCS	range ⁿ	

3 approach directions		1 approach direction
5 mm	8 mm	
15 mm	20 mm	
-		
-		
EN/IEC 60947-5-1, EN/ISO 13849-1, EN/IEC 62061,	UL 508 and CSA C22-2 no. 14	
EN/IEC 60204-1, EN/ISO 14119		
-		
UL, CSA, EAC, ECOLAB		
16 x 51 x 7	25 x 88 x 13	Ø 30, L 38.5
-		
16	78	-
-		
-		
-		
1 NC + 1 NO staggered 2 NC staggered Independent Reed-type contacts operated by coded magnet.	1 NC + 1 NO staggered 2 NC staggered 2 NC + 1 NO (NC staggered) 1 NC + 2 NO (NO staggered)	1 NC + 1 NO staggered 2 NC staggered
To be used with safety control units.		
IP 66 and IP 67 for pre-cabled version, IP 67 for conne	ector on flying lead version	
_		
-		
-25+85 °C		
-		
L = 2, 5 or 10 m	M40 on 0.45 m flying load	
M8, on 0.15 m flying lead	M12, on 0.15 m flying lead	_
XCSDMC	XCSDMP	XCSDMR
Please refer to our catalogue "Safety switches XCS		

refer to our cat logue

14

Telemecanique Sensors

contact					
ce and/or subjected to fre	quent washing				
mat	Cylindrical format				
ctor on flying lead					



Limit switches

XC range Variable composition: simplicity through innovation

Principle

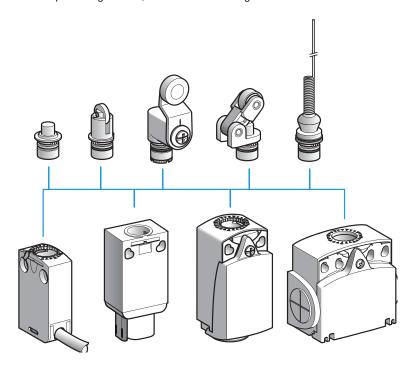
Variable composition principle

■ The Miniature design XCMD and XCMV, and Compact design XCKD, XCKP and XCKT ranges benefit from the variable composition concept.

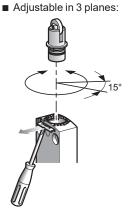
- A worldwide detection first for improving productivity.
- A complete offer for resolving the most commonly encountered detection problems:
- □ product selection simplified,
- □ product availability simplified,
- □ installation and setting-up simplified,
- □ maintenance simplified.

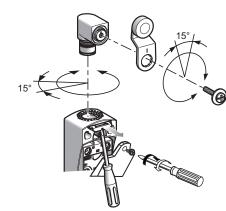
Heads

■ A single metal operating head type for the Miniature design XCMD and XCMV, and Compact design XCKD, XCKP and XCKT ranges.



■ Interchanging of heads achieved by simple operation of forked metal latch.





All the heads can be adjusted in 15° steps throughout 360°, in relation to the body.

All the levers can be adjusted in 15° steps throughout 360°, in relation to the horizontal axis of the head.

Limit switches

XC range Variable composition: simplicity through innovation

Principle (continued)	
-----------------------	--

Cable entries

■ The cable entries for Compact design XCKD and XCKP switches enable: □ simple cabling due to unrestricted access to contacts,



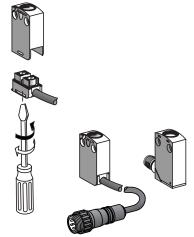
simple adaptation to the various worldwide markets:
 6 models are available:





- □ ISO M16 x 1.5 □ Pg 11
- □ ISO M20 x 1.5 □ Pg 13.5 □ 1/2" NPT □ PF 1/2 (G 1/2)

Each model is available in metal or plastic, respectively suited to Compact design XCKD and XCKP.



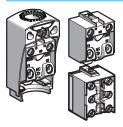
Connection components

 The miniature XCMD range allows interchanging of these pre-cabled connection components:

 a 1/4 of a turn is all that is required for removing the connection component on XCMD bodies with 2 and 3 contacts,
 6 alternative cable lengths are available as standard.

■ The miniature XCMD range also includes an integral or remote connector solution.

Contact block or bodies with contact





2 and 3 snap action and slow break contact blocks, with positive opening operation, are interchangeable between the Compact design XCKD and XCKP and Classic XCKJ, XCKS, XCKM and XCKL ranges.

■ For the miniature design XCMD range, the contacts are an integral part of the body: □ 2 and 3 snap action and slow break contacts, with positive opening operation, and interchangeable connection component,

□ 4 snap action contacts, with positive opening operation, with monolithic body and connection components.

Presentation, terminology

Limit switches XC range General

Presentation

Electromechanical detection

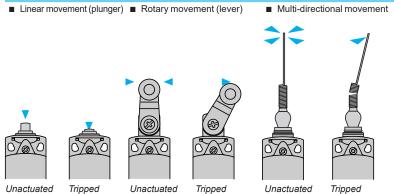
Limit switches are used in all automated installations and also in a wide variety of applications, due to the numerous advantages inherent to their technology. They transmit data to the logic processing system regarding:

□ presence/absence,

- presence/al
 passing,
 positioning,
- □ end of travel.

Simplicity of installation, advantages

- From an electrical viewpoint
- □ galvanic separation of circuits,
- models suitable for low power switching combined with good electrical durability,
- □ very good short-circuit withstand in coordination with appropriate fuses,
- total immunity to electromagnetic interference,
- high rated operational voltage.
 From a mechanical viewpoint
- NC contacts with positive opening operation,
 high resistance to the different ambient conditions encountered in industry (standard tests)
- and specific tests under laboratory conditions), □ high repeat accuracy, up to 0.01 mm on the tripping points.
- **Detection movements**



Terminology

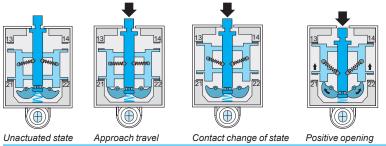
Rated value of a quantity	 This replaces the term "nominal value". It is the fixed value for a specific function.
Utilisation categories:	 AC-15 replaces AC-11: control of an electromagnet on AC, test 10 le/le. AC-12: control of a resistive load on AC or static load isolated by opto-coupler. DC-13 replaces DC-11: control of an electromagnet on DC, test le/le.
Positive opening travel	 Minimum travel from the initial movement of contact actuator to the position required to accomplish positive opening operation
Positive opening force	The force required on the contact actuator to accomplish positive opening operation.
	 Ithe is no longer a rated value but a conventional current used for heating tests. Example: for category A300 the corresponding operational current, le maximum, is 6 A-120 V or 3 A-240 V, the equivalent lthe being 10 A.
Positive opening operation	 A limit switch complies to this specification when all the closed contact elements of the switch can be changed, with certainty, to the open position (no flexible link between the moving contacts and the operator of the switch, to which an actuating force is applied). All limit switches incorporating either a slow break contact block or a snap action NC + NO (form Zb), NC + NO + NO, NC + NC + NO, NC + NC + NO Contact block are positive opening operation, in complete conformity with standard IEC 60947-5-1 Appendix K.

Limit switches XC range General

Contact blocks

Snap action contacts

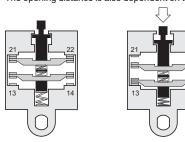
- Snap action contacts are characterised by different tripping and reset points (differential travel).
- The displacement speed of the moving contacts is not related to the speed of the operator.
 - This feature ensures satisfactory electrical performance in applications involving low speed
- actuators



Slow break contacts

Slow break contacts are characterised by identical tripping and resetting points.
 The displacement speed of the moving contacts is equal, or proportional, to the speed of the operator (which must not be less than 0.1 m/s = 6 m/minute).

The opening distance is also dependent on the distance travelled by the operator.



Electrical durability for normal loads

- Normally, for inductive loads, the current value is less than 0.1 A (sealed), i.e. values of 3 to 40 VA sealed and 30 to 1000 VA inrush, depending on the voltage
- For this type of application the electrical durability will exceed 10 million operating cycles. **Application example: XCKJ161 + LC1D12eeee** (7 VA sealed, 70 VA inrush). Electrical durability = 10 million operating cycles.

Switching capacity

3

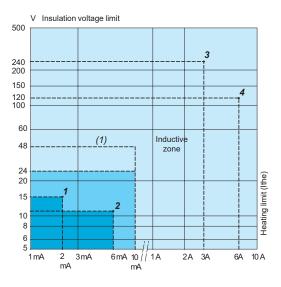
4

Normal industrial PLC input type 1 (PLC: industrial programmable logic controllers) Normal industrial PLC input type 2 1 2

2	Normal industrial PLC input type 2					
3	Switching capacity conforming to IEC 60947-5-5, utilisation category AC-15, DC-13					
	A300	240 V	3 A	B300	240 V	1.5 A
	Q300	250 V	0.27 A	R300	250 V	0.13 A
1	Switching of	capacity	conforming to IE	C 60947-5-1, u	tilisation	category AC-15, DC-13
	A300	120 V	6 A	B300	120 V	3 A
	Q300	125 V	0.55 A	R300	125 V	0.27 A

Electrical durability for small loads

- The use of limit switches with programmable controllers is becoming more common.
- With small loads, limit switches offer the following levels of reliability: □ failure rate of less than 1 for 100 million operating cycles using snap action contacts (contacts XE2SP),
- □ failure rate of less than 1 for 20 million operating cycles using slow break contacts (contacts XE NP and XE3SP).
- □ failure rate of less than 1 for 5 million operating cycles using contacts XCMD.



		Range	ofuse
Standard	XE2SP2151, P3151		
contacts	XE2NP ••••		
Continuous service (frequent switching)	Contacts of XCMD XE3•P••••		
Gold flashed contacts on resistive load	Occasional service Infrequent switching, ≤ 1 operating cycle/ day, and/or corrosive atmosphere	(1)	

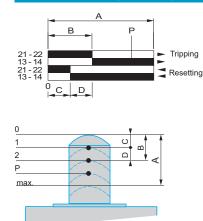
(1) Usable up to 48 V/10 mA.



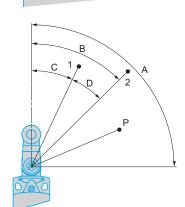
Contact blocks (continued)

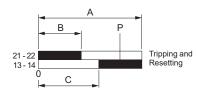
Limit switches XC range

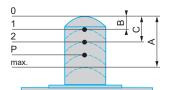
General

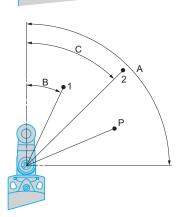


Contact blocks (continued)









Functional diagrams of snap action contacts

Example: NC + NO

- A Maximum travel of operator in millimetres or degrees.
- B Tripping travel of contact.
- C Resetting travel of contact.
- D Differential travel = B C
- P Point from which positive opening is assured.

□ Linear movement (plunger)

- 1 Resetting point of contact.
- 2 Tripping point of contact.
- A Maximum travel of operator in millimetres.
- B Tripping travel of contact.
- C Resetting travel of contact. D Differential travel = B C.
- P Point from which positive opening is assured.

□ Rotary movement (lever)

- 1 Resetting point of contact.
- 2 Tripping point of contact.
- A Maximum travel of operator in degrees.
- B Tripping travel of contact.
- C Resetting travel of contact.
- D Differential travel = B C.
- P Point from which positive opening is assured.

Functional diagrams of slow break contacts

- Example: NC + NO break before make
- A Maximum travel of operator in millimetres or degrees.
- B Tripping and resetting travel of contact 21-22.
- C Tripping and resetting travel of contact 13-14. P Point from which positive opening is assured.

□ Linear movement (plunger)

- 1 Tripping and resetting points of contact 21-22.
- 2 Tripping and resetting points of contact 13-14. A Maximum travel of operator in millimetres.

- B Tripping and resetting travel of contact 21-22. C Tripping and resetting travel of contact 13-14.
- P Positive opening point.

□ Rotary movement (lever)

- 1 Tripping and resetting points of contact 21-22.
- 2 Tripping and resetting points of contact 13-14.

- A Maximum travel of operator in degrees.
 B Tripping and resetting travel of contact 21-22.
 C Tripping and resetting travel of contact 13-14.
 P Positive opening point.

Contact blocks (continued), mounting

Limit switches

Connecting cable: cable preparation lengths:
 □ for XE2●P, L = 22 mm,
 □ for XE2●P3●●, L = 45 mm,

XC range General

Contact connections

Tightening torque:

XE3•P.

Contact blocks (continued)



XE2•P screw clamp terminal connections

XE3•P screw clamp terminal connections



Mounting





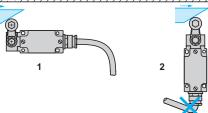
Т

□ for **XE3**●**P**, L = 14 mm, L1 = 11 mm.

Sweep of connecting cable

 Recommended
 To be avoided Recommended





minimum tightening torque ensuring the nominal characteristics of the contact: 0.8 N.m,
 maximum tightening torque without damage to the terminals: 1.2 N.m for XE2•P, 1 N.m for

Position of cable gland

 Recommended
 To be avoided Recommended 2 Type of cam Recommended 1 2 1 2 To be avoided 30 <u>م</u> و 9°0 Mounting and fixing limit switches by the head 1 Recommended 2 Forbidden XCKD, XCKP, XCKT, XCMD, XCMH and XCMN 2





Limit switches XC range General

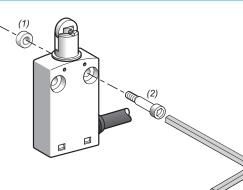
Setting-up

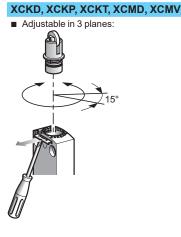
Tightening torque

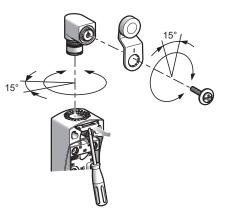
The minimum torque is that required to ensure correct operation of the switch.
 The maximum torque is the value which, if exceeded, will damage the switch.

Range	Item		Torque (N.m)		Torque (Ib-in)	
		Min.	Max.	Min.	Max.	
Compact design XCKD, XCKP, XCKT	Cover	0.8	1.2	7.08	10.62	
	Fixing screw for lever on rotary head	1	1.5	8.85	13.27	
Miniature design XCMD, XCMH, XCMN, XCMV	Fixing screw for the product	1	1.5	8.85	13.27	
	Fixing screw for lever on rotary head	1	1.5	8.85	13.27	
Compact design XCKN	Cover	0.8	1.2	7.08	10.62	
	Fixing screw for lever on rotary head	1	1.5	8.85	13.27	
Classic design XCKJ	Cover	1	1.5	8.85	13.27	
	Fixing nut for lever on rotary head	1	1.5	8.85	13.27	
Classic design XCKS	Cover	0.8	1.2	7.08	10.62	
	Fixing nut for lever on rotary head ZCKD	1	1.5	8.85	13.27	
	Fixing nut for lever on rotary head XCKS	0.8	1.2	7.08	10.62	
	Fixing head on body	0.8	1.2	7.08	10.62	
Classic design XCKM, XCKML, XCKL	Cover	0.8	1.2	7.08	10.62	
	Fixing nut for lever on rotary head	1	1.5	8.85	13.27	

XCMH, XCMN







(1) 2 spacers supplied with the switch.

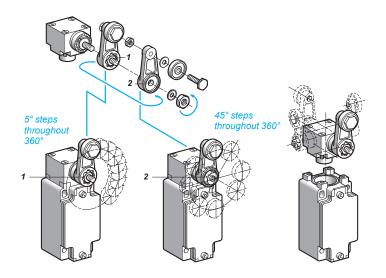
(2) 2 screws Ø 4mm (not included).

All the heads can be adjusted in 15° steps throughout 360°, in relation to the body.

All the levers can be adjusted in 15° steps throughout 360°, in relation to the horizontal axis of the head.

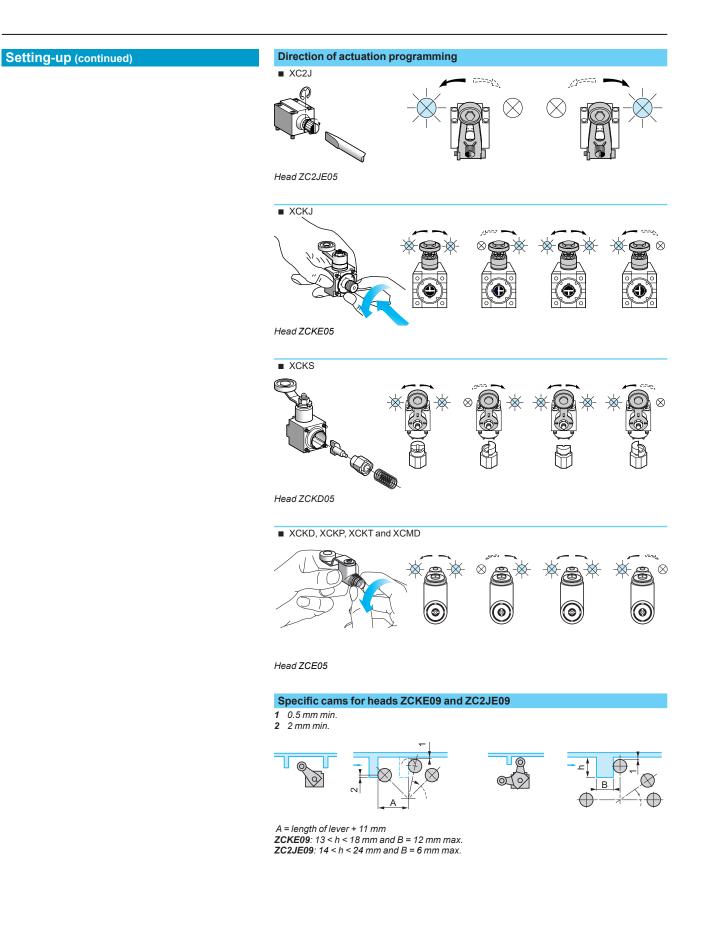
XCKJ

- Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting. 1 Reversed $\alpha = 5^{\circ}$
- **2** Forward α = 45°



Limit switches

XC range General





Reminder of the standards Limit switches

Limit switches XC range General

European standards (for example CENELEC) or internation requirements of the designated products (for example IEC These products, when correctly used, enable the production	to national standards (for example French NF C standards, German DIN standards), nal standards (for example IEC). These standards rigidly stipulate the characteristic 60947 relating to low voltage switchgear and control gear). on of control equipment assemblies, machine control equipment or installations C 60204 for the electrical equipment of industrial machines).
IEC 60947-5-1	
Insulation coordination (and dielectric strength)	The standard IEC 60664 defines 4 categories of prospective transient overvoltages. It is important for the user to select control circuit components which are able to withstand these overvoltages. To these ends, the manufacturer states the rated impulse withstand voltage (U imp) applicable to the product.
Terminal connections	 The cabling capacity, mechanical robustness and durability of the terminals, as well as the ability to resist loosening, are verified by standardised tests. Terminal reference marking conforms to standard IEC 60947-5-1 Appendix M .
Switching capacity	 With maximum electrical load. A single designation (A300 for example) enables indication of the contact block characteristics related to its utilisation category.
Positive opening operation (IEC 60947-5-1 Appendix K)	For contacts used in safety applications (end of travel, emergency stop device, etc.) the assurance of positive opening is required (see IEC 60204, EN 60204) after each test, the opening of the contact being verified by testing with an impulse voltage (2500 V).
Electrical symbols for contacts	Form Za, the 2 contacts (NO + NC) are the same polarity.
Symbol for positive opening	→ Simplified version ✓ Complete symbol
CENELEC EN 50047 The European standards organisation CENELEC, which has 14	t member countries, has defined in this standard the first type of limit switch.
It defines 4 variants of devices (forms A, B, C, E). Limit switches XCKP, XCKD and XCKT conform to standard EN 50047.	(1) Minimum value A: reference axis (2) Maximum value H: differential travel P: tripping point E: cable entry
Form A, with roller lever	Form B, with end plunger (rounded)
$50 (2) + 40\pm 2 + 10 (1) + 10 (1) + 15\pm 10 + 10 (1) + 10$	
Form C, with end roller plunger	Form E, with roller lever for 1 direction of actuation
$\frac{10 (1)}{12.5 \div 2.5}$	$ \begin{array}{c} 10 (1) \\ 12.5 \pm 2.5 \\ \hline \\ 5 (1) \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $
	$\begin{array}{c} 10 \pm 2 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$

Limit switches

(continued)

Reminder of the standards

XC range General

Reminder of the standards (continued) **CENELEC EN 50041** The European standards organisation CENELEC, which has 14 member countries, has defined in this standard the second type of limit switch. It defines 6 variants of devices (forms A, B, C, D, F, G). (1) Minimum value A: reference axis Za: tripping zone Limit switches XCKJ and XCKS conform to standard (2) Maximum value B: optional elongated holes Sa: tripping threshold EN 50041. H: differential travel P: tripping point E: cable entry Form A, with roller lever Form B, with end plunger (rounded) 70 (2) 20±3 56±2 (1)Ρ Н 16±2 20 Т 5 (1) (7)5.3 22 22 10 (1) + ЮJ l∉ þ 60+00 (2) Е В 1× 5.3±0.1 30±0.1 15 (1) **30** ⁺ ¹⁰ ₅ 42.5 (2) 46 (2) Form C, with end roller plunger Form D, with rod lever <u>15±2.5</u> Za 56±10 10 (1) DQ 400 Н Р Sa 20 (2) 20 (2) 3 (1) 200 E F C 20 16±2 Ø Т 7 E * ŝ 4 $\mathbf{\Phi}$ Form F, with side plunger (rounded) Form G, with side roller plunger 56 (1) 20 (1) 58⁺¹0 41⁺¹0 20 (1) 51±1.5 39 (1) 15±2.5 <u>30°</u> ŝ 30 47 (1) 34±1.5 15±2. т 16±2 16±2 30 (1) \oplus Œ r 2 15±2.5 Ŧ b H Η. 15±2.5 ¢ т тĺ 55 72 16±2 3 (1) H, H **HC** -(T 20 ¢ 59<u>(1)</u> 41 (1) 45±1.5 62±1.5 67 (1) 50 (1)



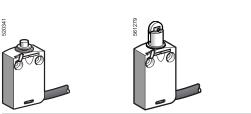


Limit switches

XC Standard range Miniature design, metal, XCMD

■ XCMD pre-cabled

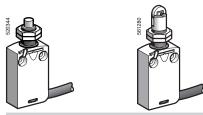
With head for linear movement (plunger). Fixing by the body





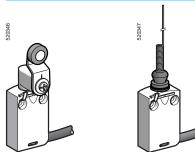
Complete switches: page 28. Variable composition: page 30

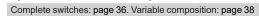
D With head for linear movement (plunger). Fixing by the head



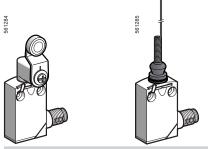
Complete switches: page 28. Variable composition: page 30

D With head for rotary movement (lever) or multi-directional. Fixing by the body





With head for rotary movement (lever) or multi-directional. Fixing by the body



Complete switches: page 37. Variable composition: page 39

■ XCMD with connector

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General characteristics

Limit switches

XC Standard range Miniature design, metal, XCMD

Environment chara	acteristics	
Conformity to standards	Products	CE, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC
	Machine assemblies	IEC 60204-1, EN 60204-1
Product certifications		UL, CSA (except products with special cables), CCC
Protective treatment		Standard version: "TC"
Ambient air temperature	For operation	- 25+ 70°C (- 40+ 70 °C with ZCE106, ZCE026 and ZCE016 heads)
	For storage	-40+70°C
Vibration resistance		XCMD snap action: 5 gn. XCMD slow break: 25 gn (10500 Hz) conforming to IEC 60068-2-6
Shock resistance		25 gn (18 ms) conforming to IEC 60068-2-27 except head ZCE08: 15 gn (18 ms)
Electric shock protection		Class I conforming to IEC 61140 and NF C 20-030
Degree of protection		IP 66, IP 67 and IP 68 (1) conforming to IEC 60529; IK 06 conforming to IEC 62262
Materials		Bodies: Zamak, heads: Zamak
Repeat accuracy		0.05 mm on the tripping points, with 1 million operations for head with end plunger
		(1) Protection against prolonged immersion: the test conditions are subject to agreement between the manufacturer and the user.

		sourcon the manufacturer and the aser.						
Contact block chara	acteristics							
Rated operational characteristics	Switches with 2 contacts	\sim AC-15; B300 (Ue = 240 V, le = 1.5 A) = DC-13; R300 (Ue = 250 V, le = 0.1 A), confe	orming to IEC 60947-5-1 Appendix A, EN 60947-5-1					
	Switches with 3 and 4 contacts	∼ AC-15; C300 (Ue = 240 V, Ie = 0.75 A) DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1						
	Pre-cabled switches	Ithe = 6 A for 2 contacts, 4 A for 3 contacts, 3 A for 4 contacts						
	Switches with M12, 4-pin connector	Ui = 250 V, le = 3 A maximum, Ithe = 3 A						
	Switches with M12, 5-pin connector	Ui = 60 V, Ie = 4 A maximum, Ithe = 4 A						
	Switches with 7/8"-16UN, 5-pin connector	Ui = 250 V, Ie = 6 A maximum, Ithe = 6 A						
Rated insulation voltage			Ui = 400 V degree of pollution 3 conforming to IEC 60947-5-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14					
Rated impulse withstand vol	tage	U imp = 4 kV conforming to IEC 60947-1, IEC 60664						
Positive operation (dependin	g on model)	NC contacts with positive opening operation conforming to IEC 60947-5-1 Appendix K, EN 60947-5-1						
Resistance across terminals	i	≤ 25 mΩ conforming to IEC 60255-7 catego	pry 3					
Short-circuit protection		6 A cartridge fuse type gG (gl)						
Minimum actuation speed (for head with end plunger)		Snap action contact: 0.01 m/minute, slow break contact: 6 m/minute						
Electrical durability		 Conforming to IEC 60947-5-1 Appendix Utilisation categories AC-15 and DC-13 Maximum operating rate: 3600 operating Load factor: 0.5 						
	AC supply 50/60 Hz \sim 	XCMD snap action (NC + NO, NC + NC, NC + NC + NO, NC + NC + NO + NO contacts)	XCMD slow break (NC + NO, NC + NC + NO contacts)					
		Willious of operating orders Willious of operating orders 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Williou of the second s					

DC supply	Power broken in W for 5 million operating cycles				Power broken in W for 5 million operating cycles					
	Voltage	V	24	48	120	Voltage	V	24	48	120
	m	W	3	2	1	m	w	4	3	3

2

3 4 5 6 10 Current in A

2

3

1

4 5 6

10

Current in A

0.1

0.5



0.1

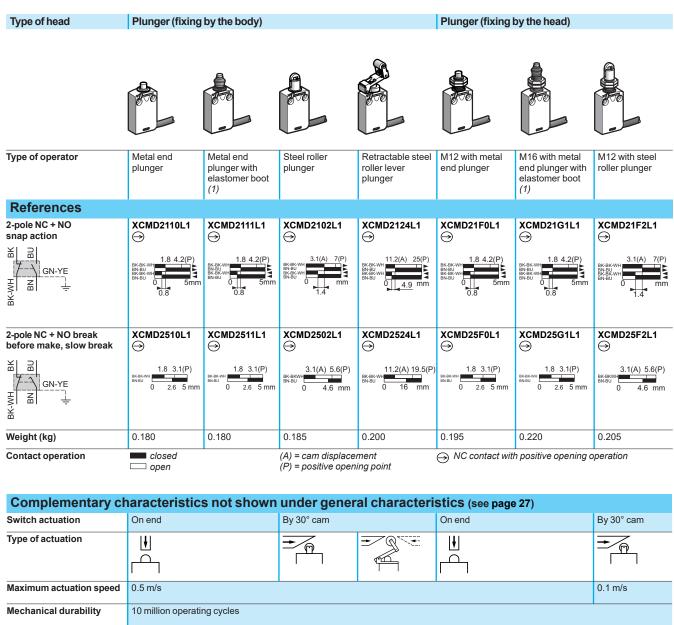
0.5

1

References, characteristics

Limit switches

XC Standard range Miniature design, metal, XCMD Complete units Pre-cabled



Minimum force or	For tripping	8.5 N	7 N	2.5 N	8.5 N
torque	For positive opening	42.5 N	35 N	12.5 N	42.5 N
Cabling		PvR cable, 5 x 0.75 mm ² , length 1 m	I		

7 N

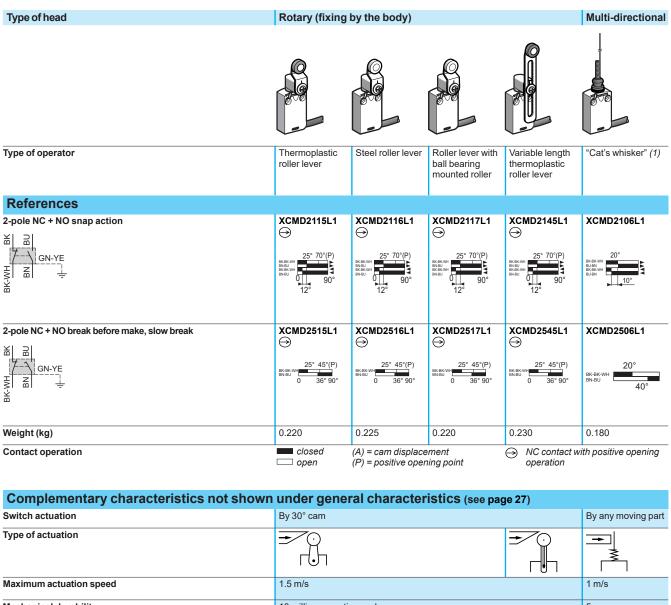
35 N

(1) Nitrile for indoor use

References, characteristics (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Complete units Pre-cabled



Mechanical durability		10 million operating cycles	5
Minimum force or torque	For tripping	0.1 N.m	
	For positive opening	0.5 N.m	-
Cabling		PvR cable, 5 x 0.75 mm ² , length 1 m	*

(1) Value taken with actuation by moving part at 100 mm from the fixing.



References, characteristics

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Pre-cabled

Type of head	Plunger (fixing	by the body)			Plunger (fixing by the head)			
Type of operator	Metal end plunger	Metal end plunger with elastomer boot (1)	Steel roller plunger	Retractable steel roller lever plunger	M12 with metal end plunger	M16 with metal end plunger with elastomer boot (1)	M12 with steel roller plunger	
References (comb	ined with rer	1.7	ninal block)					
2-pole NC + NC	ZCMD29L1+	ZCMD29L1+	ZCMD29L1 +	ZCMD29L1+	ZCMD29L1+	ZCMD29L1+	ZCMD29L1+	
snap action Mal 요 GN-YE H는 H H A Mal 요 슈	ZCE10	ZCE11 1.8 4.2 (P) RD-RD-WH RD-RD-WH 0.8 5 mm	ZCE02 3.1(A) 7(P) BC-BC-WH RD-RD-WH 0 1.4	ZCE24 () 11.2(A) 25(P)	ZCEF0 BK BK-WH BK BK-WH RD-RD-WH 0.8 5 mm	ZCEG1 ↔ 1.8 4.2 (P) BC-RCWH RD-RDWH 0.8 5 mm	ZCEF2 BK-BK-WH BR-RD-WH BR-RD-WH 0 1.4 MR	
3-pole NC + NC + NO snap action 潘 문 교 (거커\GN-YE	ZCMD39L1+ ZCE10 ↔ BKBUM BRAUM BRAUM BRAUM BRAUM	ZCMD39L1 + ZCE11 → KEKWH BNRUWH BNRUWH	ZCMD39L1 + ZCE02 ↔ 8.1(A) 7(P) 8K8KWH 8K8KWH 8K8KWH	ZCMD39L1 + ZCE24 → 11.2(A) 25(P)	ZCMD39L1+ ZCEF0 - BK-BK-WH RDRDWH BK-BK-WH BK-BK-WH BK-BK-WH BK-BK-WH	ZCMD39L1 + ZCEG1 → N.8 4.2(P) N.8 4.2(P) 1.8 4.2(P) N.8 4.2(P)	ZCMD39L1 + ZCEF2 ↔ 8.8K-9K-WH RDR0WH BDR0WH BDR0WH	
HAN YA Spole NC + NC + NO break	ZCMD29L1 +	ZCMD37L1 +	ZCMD37L1+	ZCMD37L1 +	BR.BR.WH 0 0.8 5 mm 0.8	BR-BUWH BR-BUWH 0.8 5 mm 2CMD37L1 +	ZCMD37L1 +	
before make, slow break	ZCE10 →	ZCE11 →	ZCE02 →	ZCMD37L1∓ ZCE24⊖		ZCEG1⊖	$ZCMD37L1 + ZCEF2 \rightarrow$	
	1.8 3.1(P)			11.2(A) 19.5(P)	BK-BK-WH BN-BU BN-BU 0 2.6 5 mm	1.8 3.1(P) BN-R0 MH BN-BU 0 2.6 5 mm	•	
Weight (kg)	0.180	0.180	0.185	0.200	0.195	0.220	0.205	
4-pole 2 NC + 2 NO snap action	ZCMD4DL1 + ZCE10 →	ZCMD4DL1 + ZCE11 ⊖	ZCMD4DL1 + ZCE02 ⊖	ZCMD4DL1 + ZCE24 ⊖	ZCMD4DL1 + ZCEF0 ⊖	ZCMD4DL1+ ZCEG1 ⊖	ZCMD4DL1 + ZCEF2 ->>	
	1.8 4.2(P) BK BK WH BK BU KK KK WH BK BK WH BK BK WH KK KK WH C KK W	1.8 4.2(P) BN 40 BN 40 B	3.1(A) 7(P)	11.2(A) 25(P) BURD WIN BURD WIN B	1.8 4.2(P) BN-80 WH BN-80 WH BK-86 WH VT-VT-WH 0 0.8 5 mm	1.8 4.2(P) BN-80 W5-75-WH BK-86-WH BK-86-WH VT-VT-WH 0 0.8	BK BK-WH BH-BU BK-BK-WH BK-BK-WH BK-BK-WH BK-BK-WH VT-VT-WH VT-VT-WH VT-VT-WH VT-VT-WH	
Weight (kg)	0.160	0.160	0.165	0.180	0.175	0.200	0.185	
References (comb	1							
4-pole 2 NC + 2 NO snap action	ZCMD41L1 + ZCE10 →	ZCMD41L1 + ZCE11 ⊖	ZCMD41L1 + ZCE02 ⊖	ZCMD41L1 + ZCE24 ⊖	ZCMD41L1 + ZCEF0 →	ZCMD41L1 + ZCEG1 ⊖	ZCMD41L1 + ZCEF2 →	
	1.8 4.2(P) BK BK-WH BK BK-WH BK BK-WH BK BK-WH DK BK-WH UT-VT-WH 0.8 5 mm	1.8 4.2(P) BN-BU-WH BN-BU-WH BK-BK-WH BN-BU- VT-VT-WH 0 5 mm	S.1(A) 7(P)	11.2(A) 25(P) BDBAD WH BUEN WENCH BUEN WENCH WINT WIN	1.8 4.2(P) BN80 VT-VT-WH BK80 VT-VT-WH BK80 VT-VT-WH 0 0.8	1.8 4.2(P) BDRD/D/H B	BK-BK-WH BY-BD/WH BY-BD/WH BY-BD/WH BY-BD/WH WT-VT-WH UT-VT-WH 0 1.4	
Weight (kg)	0.160	0.160	0.165	0.180	0.175	0.200	0.185	
Contact operation	closed		(A) = cam displace (P) = positive open		→ NC contact with	h positive opening o	operation	
Complementary cl		s not shown			stics (see page	e 27)		
Switch actuation	On end		By 30° cam		On end		By 30° cam	
Type of actuation					l L L L L L			
Maximum actuation speed	0.5 m/s				· · ·		0.1m/s	
Mechanical durability	10 million operati	ng cycles						
Minimum For tripping force or	8.5 N		7 N	2.5 N	8.5 N		7 N	
torque For positive opening	42.5 N	75 mm^2 longth 1 m^4	35 N	12.5 N	42.5 N	o contact versions. (35 N	
Cabling			of 2-pole contact ve other lengths, see p	ersions, 7 x 0.5 mm ² page 48.	iengui i ni ioi s-pole	e contact versions, s	x 0.34 min-tengtr	
(1) Nitrile for indoor use								

(1) Nitrile for indoor use



References, characteristics (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Pre-cabled

Type of head	Rotary (fixing	by the body)			Multi-directiona
					600
Type of operator	Thermoplastic roller lever	Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever	"Cat's whisker" (1)
References (combined with removable te	rminal block)				1
2-pole NC + NC snap action 출 교 GN-YE 동 요 표	ZCMD29L1+ ZCE01+ ZCY15 ↔	ZCMD29L1+ ZCE01+ ZCY16 ↔ ZCY16 ↔ 25° 70°(P) KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHWH KKHY KKHY	ZCMD29L1+ ZCE01+ ZCY17 ↔ XCY17 ↔ XCY1	ZCMD29L1 + ZCE01 + ZCY45 ↔	20° RESERVING RESERVING 20° 10° 10° 10°
3-pole NC + NC + NO snap action Martin Rain Rain Rain Rain Rain Rain Rain Ra	12° ZCMD39L1+ ZCE01+ ZCE015 ↔ 25° 70°(P) 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30° 30	2CMD39L1+ ZCE01+ ZCY16 ↔ ^{25°} 70°(P)	12° ZCMD39L1 + ZCE01 + ZCY17 ↔ 12° 25° 70°(P) 12° 90°	12° ZCMD39L1 + ZCY45 ↔ CY45 ↔ CY45 ↔ 12° CY45 ↔ 12° CY45 ↔ CY45 ↔ 	ZCE06
3-pole NC + NC + NO break before make, slow break	ZCMD37L1 + ZCE01 + ZCY15 25° 45°(P) BREARH BNEU 0 36° 90°	ZCMD37L1 + ZCE01 + ZCY16 ↔ ZCY16 ↔ 25° 45°(P) BNBU 0 36° 90°	ZCMD37L1 + ZCE01 + ZCY17 ↔ 25° 45°(P) BNR0WH 0 36° 90°	ZCMD37L1 + ZCE01 + ZCY45 ↔ 25° 45°(P) BNR0 WI D 36° 90°	20° BK:BK:WH BK:BU
Weight (kg)	0.220	0.225	0.220	0.230	0.180
4-pole 2 NC + 2 NO snap action	ZCMD4DL1 + ZCE01 + ZCY15 ↔ 25' 70'(P) ************************************	ZCMD4DL1 + ZCE01 + ZCY16 ↔ 25' 70'(P)	ZCMD4DL1+ ZCE01+ ZCY17 ↔ 2CY17 ↔ 25' 70'(P) ************************************	ZCMD4DL1+ ZCE01+ ZCY45 ↔ 2CY45 ↔ 25' 70'(P) ************************************	ZCMD4DL1+ ZCE06
Weight (kg)	0.200	0.205	0.200	0.210	0.160
References (combined with fixed termina	l block)				
4-pole 2 NC + 2 NO snap action Ă 및 A →	ZCMD41L1+ ZCE01+ ZCY15 ↔	ZCMD41L1 + ZCE01 + ZCY16 ↔ 25' 70'(P)	ZCMD41L1 + ZCE01 + ZCY17 ↔ 25' 70'(P)	ZCMD41L1 + ZCE01 + ZCY45 ↔ 25° 70°(P) BCB0000 CC 70°(P) CC 70°(P)	20° 20° 20° 20°
	0 90°	0 90° 12°	0 90°	0 90° 12°	▶ <u>10°</u>
Weight (kg)	0.200	0.205	0.200	0.210	
Contact operation	closed	(A) = cam displace (P) = positive oper		→ NC contact w operation	vith positive opening
Complementary characteristics not show	n under gene	ral character	r <mark>istics</mark> (see pag	ge 27)	
Switch actuation	By 30° cam			I	By any moving pa
Type of actuation					
Maximum actuation speed	1.5 m/s				1 m/s
Mechanical durability	10 million operati 0.1 N.m	ng cycles			5
Minimum force or torque For tripping For positive opening For positive opening	0.1 N.m 0.5 N.m				-
Cabling	PvR cable, 5 x 0.	75 mm²length 1 m t rsions, 9 x 0.34 mm			n ² length 1 m for ns. For other lengths

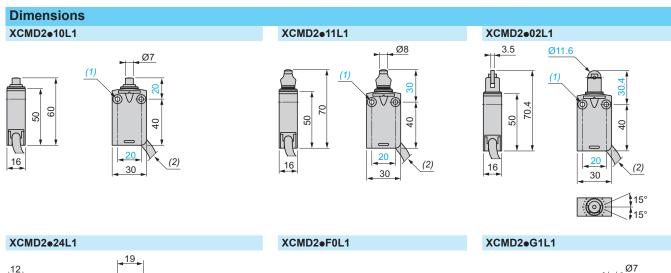
(1) Value taken with actuation by moving part at 100 mm from the fixing.

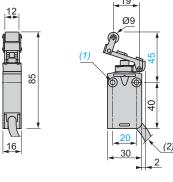


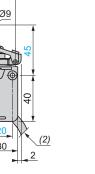
Dimensions

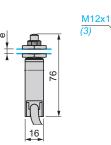
Limit switches

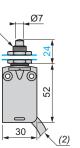
XC Standard range Miniature design, metal, XCMD Complete units Pre-cabled

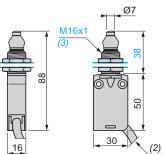






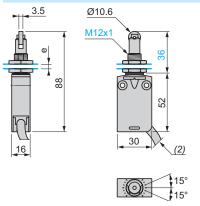






15° 15°





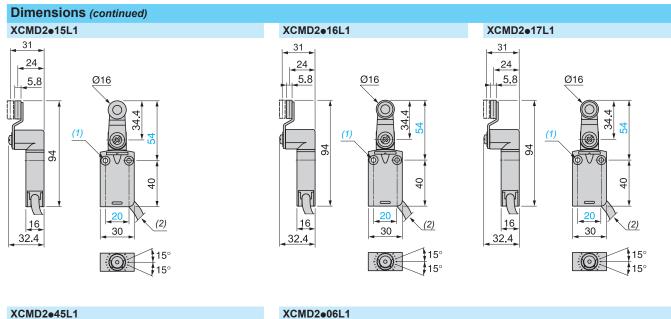
(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep (2) External diameter of cable 7.5 mm

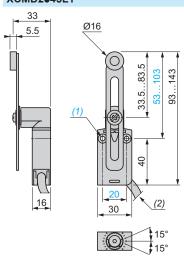
(3) Fixing nut thickness 3.5 mm e: 8 mm max, panel cut-out Ø 12.5 mm f: 8 mm max, panel cut-out Ø 16.5 mm

Dimensions (continued), mounting

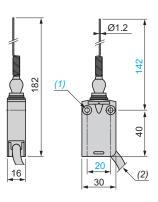
Limit switches

XC Standard range Miniature design, metal, XCMD Complete units Pre-cabled



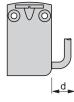






Mounting: distance required for connection

XCMD2eeeL1



d: 20 mm min.

Note: For modular switches ZCMD4D, ZCMD4DLe and ZCMC4DLe: d: 35 mm min.

(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep

(2) External diameter of cable 7.5 mm

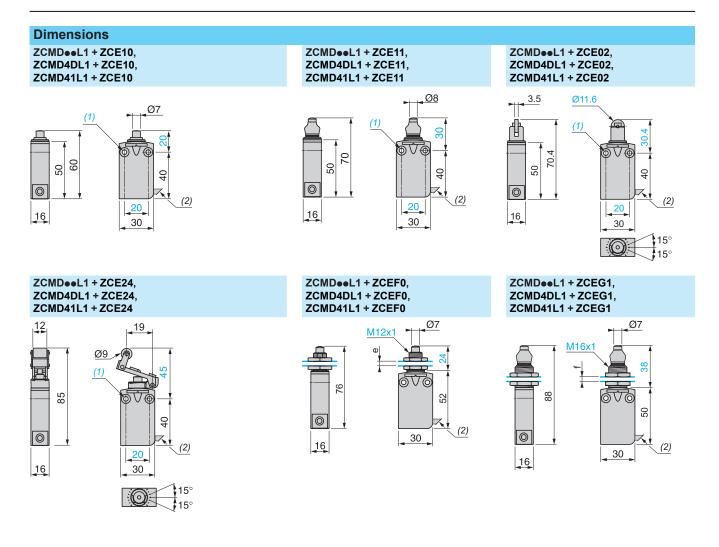
e: 8 mm max, panel cut-out Ø 12.5 mm f: 8 mm max, panel cut-out Ø 16.5 mm



Dimensions

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Pre-cabled



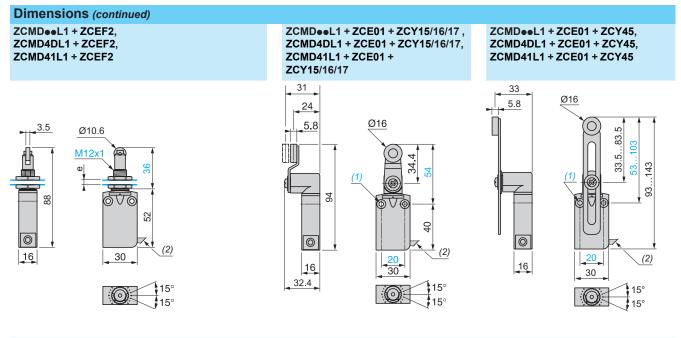
(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep (2) External diameter of cable 7.5 mm

e: 8 mm max, panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm. f: 8 mm max, panel cut-out Ø 16.5 mm, fixing nut thickness 3.5 mm.

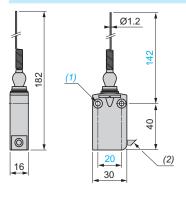
Dimensions (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Pre-cabled



ZCMDeeL1 + ZCE06, ZCMD4DL1 + ZCE06, ZCMD41L1 + ZCE06



(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep

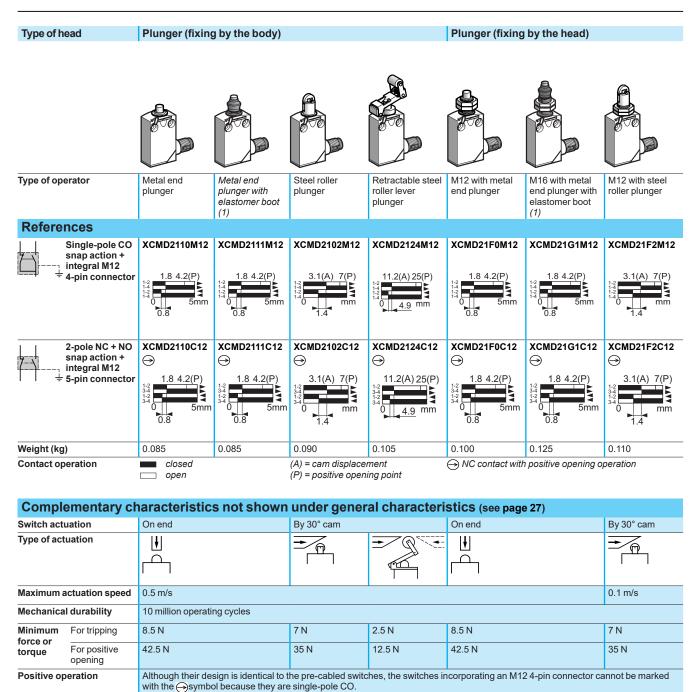
(2) External diameter of cable 7.5 mm
 e: 8 mm max, panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm.
 f: 8 mm max, panel cut-out Ø 16.5 mm, fixing nut thickness 3.5 mm.



References, characteristics

Limit switches

XC Standard range Miniature design miniature, metal, XCMD Complete units Connector



(1) Nitrile for indoor use.

References, characteristics (continued)

Limit switches

XC Standard range Miniature design miniature, metal, XCMD Complete units Connector

Type of head	Rotary (fixing	by the body)			Multi-directional
Type of operator	Thermoplastic roller lever	Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever	"Cat's whisker" (1)
References		·			
Single-pole CO snap action With integral M12 4-pin connector	XCMD2115M12	XCMD2116M12	XCMD2117M12	XCMD2145M12	XCMD2106M12
	25° 70°(P) 14 14 14 14 14 14 14 14 14 14	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 90° 12°	20° 1-4 1-2 1-4 1-2 1-4
2-pole NC + NO snap action With integral M12 5-pin connector	XCMD2115C12 ⊖	XCMD2116C12 ⊖	XCM D2117C12 ⊖	XCMD2145C12 ⊖	XCMD2106C12
÷	25° 70°(P) ¹²	25° 70°(P) 3-4 3-4 0 12° 90°	25° 70°(P) ¹⁻² ³⁻⁴ ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ¹⁻² ³⁻⁴ ¹⁻²	25° 70°(P) 3-4 3-4 3-4 0 90° 12°	20° 1-2 3-4 1-2 3-4 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2
Weight (kg)	0.125	0.130	0.125	0.135	0.085
Contact operation	closed	(A) = cam displace (P) = positive openi	ng point	→ NC contact with operation	positive opening
Complementary characteristics not show		ral characte	ristics (see pa	ge 27)	
Switch actuation	By 30° cam				By any moving part
Type of actuation					→ ▲
Maximum actuation speed	1.5 m/s			1	1 m/s

 Mechanical durability
 10 million operating cycles
 5

 Minimum force or torque
 For tripping
 0.1 N.m

 For positive opening
 0.5 N.m
 –

 Positive operation
 Although their design is identical to the pre-cabled switches, the switches incorporating an M12 4-pin connector cannot be marked with the \ominus symbol because they are single-pole CO.

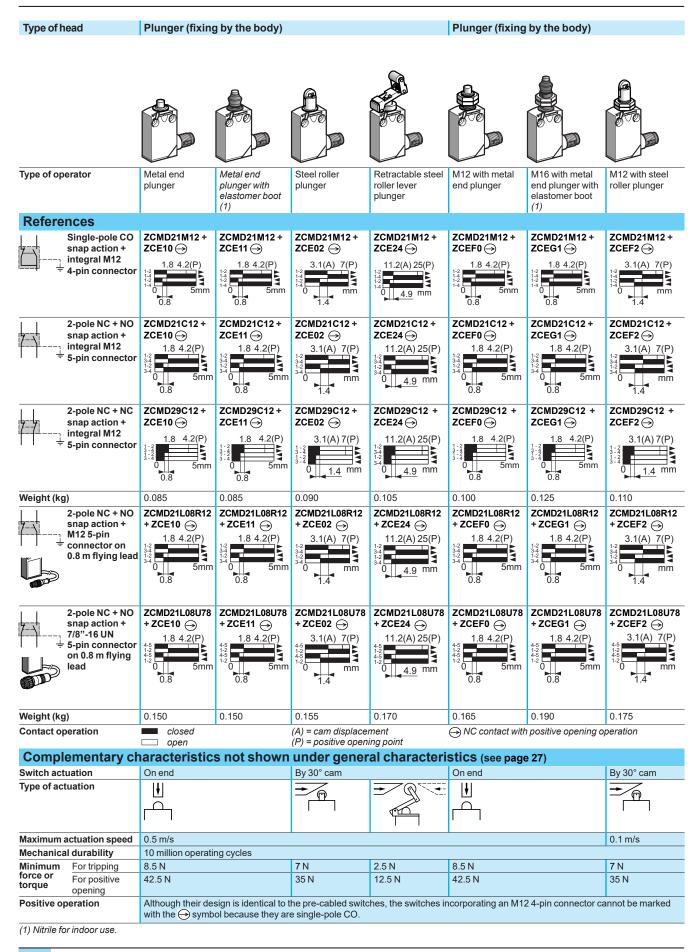
(1) Value taken with actuation by moving part at 100 mm from the fixing.



References, characteristics

Limit switches

XC Standard range Miniature design miniature, metal, XCMD Modular units Connector



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Telemecanique Sensors

References, characteristics (continued)

Limit switches

XC Standard range Miniature design miniature, metal, XCMD Modular units Connector

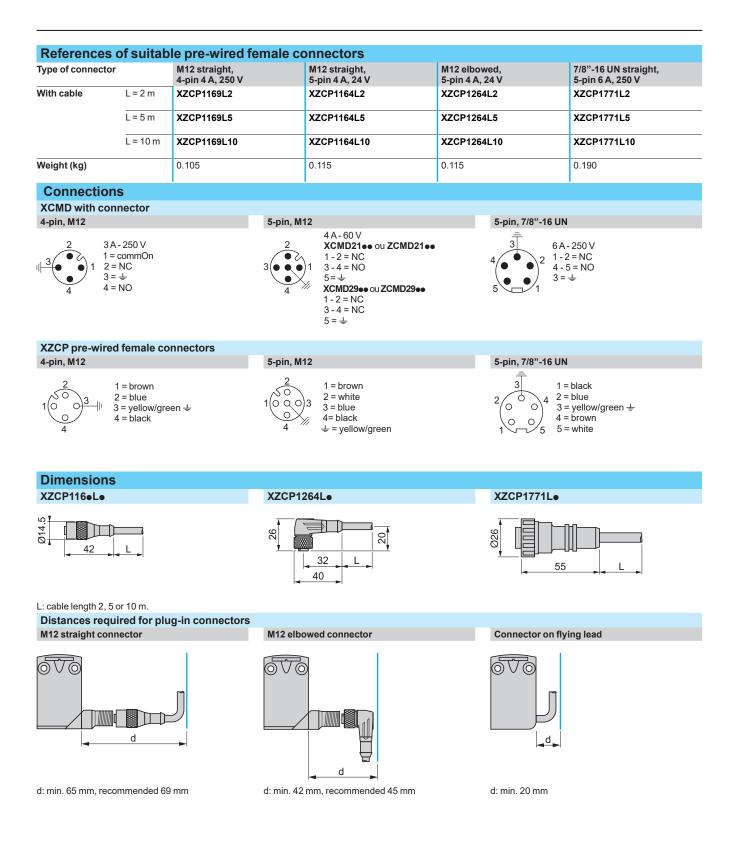
Type of head		Multi-directiona			
					870
ype of operator	Thermoplastic roller lever	Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever	"Cat's whisker" (1)
References					
Single-pole CO snap action With integral M12 4-pin connector	ZCMD21M12 + ZCE01 + ZCY15 -	ZCMD21M12 + ZCE01 + ZCY16 -	ZCMD21M12 + ZCE01 + ZCY17 -	ZCMD21M12 + ZCE01 + ZCY45 -	ZCMD21M12 + ZCE06
	25° 70°(P) 1-2 1-4 1-2 1-4 1-2 90°	25° 70°(P) 12 12 12 12 12 12 12 12 12 12	25° 70°(P) 12 12 12 12 12 12 12 12 12 12	25° 70°(P) 12 12 12 12 12 12 12 12 12 12 90°	20° 1-2 1-4 1-2 1-4 1-2 1-4
2-pole NC + NO snap action With integral M12 5-pin connector	ZCMD21C12 + ZCE01 + ZCY15 ⊖	ZCMD21C12 + ZCE01 + ZCY16 ⊖	ZCMD21C12 + ZCE01 + ZCY17 ⊖	ZCMD21C12 + ZCE01 + ZCY45 ⊖	ZCMD21C12+ ZCE06
	25° 70°(P) ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ^{90°}	25° 70°(P) ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.4} ^{1.2} ^{3.4} ^{3.5}	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ⁹ ^{90°}	20° 1-2 3-4 1-2 3-4 1-2 3-4
2-pole NC + NC snap action With integral M12 5-pin connector	ZCMD29C12 + ZCE01 + ZCY15 \ominus	ZCMD29C12 + ZCE01 + ZCY16 ⊖	ZCMD29C12 + ZCE01 + ZCY17 ⊖	ZCMD29C12 + ZCE01 + ZCY45 ⊖	ZCMD29C12 + ZCE06
	25° 70°(P) 12 34 0 12° 90°	25° 70°(P) 1-2 1-2 1-2 	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	20° 1-2 3-4 1-2 3-4 1-2 3-4 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2
Veight (kg) 2-pole NC + NO snap action With M12 5-pin connector on 0.8 m flying lead	0.125 ZCMD21L08R12 + ZCE01 + ZCY15 →	0.130 ZCMD21L08R12 + ZCE01 + ZCY16 →	0.125 ZCMD21L08R12 + ZCE01 + ZCY17 ⊖	0.135 ZCMD21L08R12 + ZCE01 + ZCY45 →	0.085 ZCMD21L08R12 + ZCE06
	25° 70°(P) ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ³⁻⁵ ³⁻⁵ ³⁻⁵ ³⁻⁶ ³⁻⁶ ³⁻⁷	25° 70°(P) ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ^{90°}	25° 70°(P) ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ^{90°}	25° 70°(P) ¹⁻² ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁴ ³⁻⁶ ^{90°}	20° 1.2 3.4 1.2 3.4 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2
2-pole NC + NO snap action With 7/8"-16 UN 5-pin connector on 0.8 m	ZCMD21L08U78 + ZCE01 + ZCY15 ⊖	ZCMD21L08U78 + ZCE01 + ZCY16 ⊖	ZCMD21L08U78 + ZCE01 + ZCY17 ⊖	ZCMD21L08U78 + ZCE01 + ZCY45 ⊖	ZCMD21L08U78 + ZCE06
	25° 70°(P) 4.5 1.2 0 12° 90°	25° 70°(P) 4-5 1-2 0 90° 12°	25° 70°(P) 4-5 1-2 0 1-2 90°	25° 70°(P) 4-5 1-2 0 12° 90°	20° 4-5 1-2 4-5 1-2 10°
Veight (kg)	0.200	0.205	0.200	0.210	0.160
Contact operation	closed	(A) = cam displace (P) = positive openi		NC contact with operation	positive opening
Complementary characteristics not show		ral characte	ristics (see pa	ge 27)	
witch actuation ype of actuation	By 30° cam → ··· F•··			⇒ ⊂•	By any moving pa
Aaximum actuation speed	1.5 m/s			1	1 m/s
Aechanical durability Ainimum force or torque For tripping	10 million operati 0.1 N.m	ng cycles			5
For positive opening	0.5 N.m				-
ositive operation				ches, the switches because they are s	
	fixing.				



References, connections, dimensions

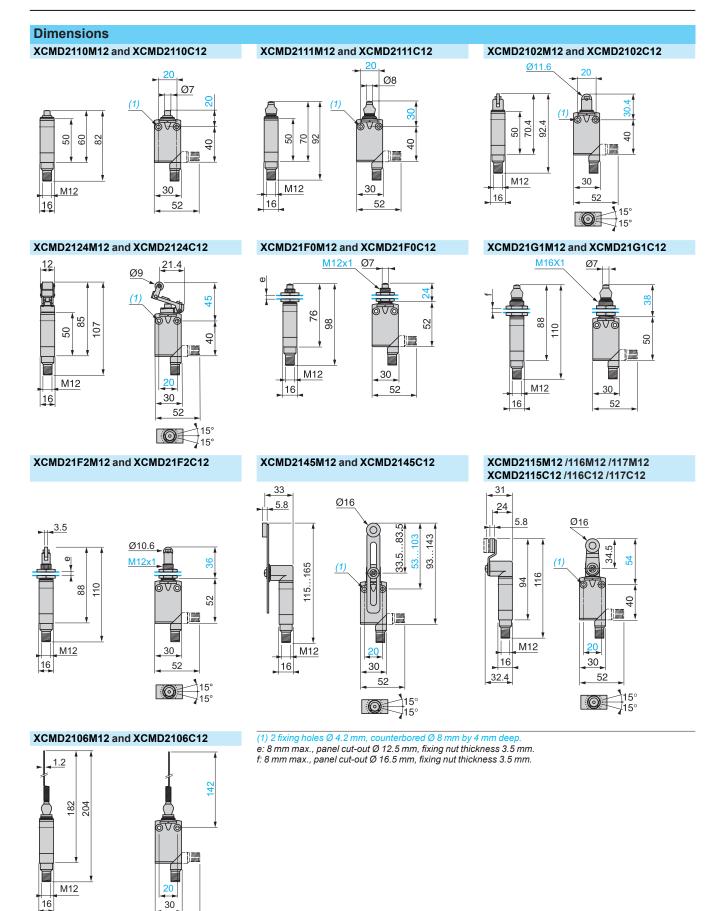
Limit switches XC Standard range

Miniature design, metal, XCMD Connector cabling accessories



Limit switches

XC Standard range Miniature design, metal, XCMD Complete units Connector



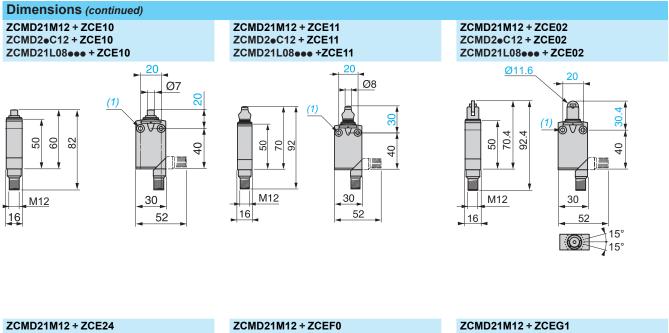


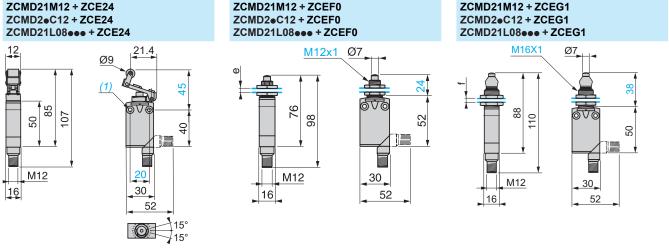
52

Dimensions (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Connector



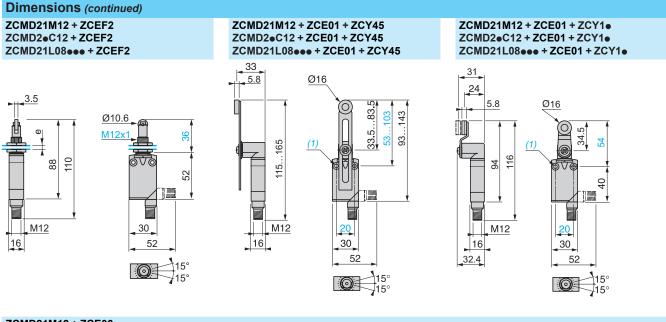


(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep. e: 8 mm max., panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm. f: 8 mm max., panel cut-out Ø 16.5 mm, fixing nut thickness 3.5 mm.

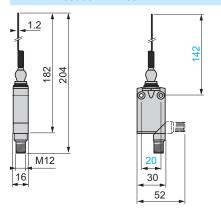
Dimensions (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Modular units Connector



ZCMD21M12 + ZCE06 ZCMD2•C12 + ZCE06 ZCMD21L08••• + ZCE06



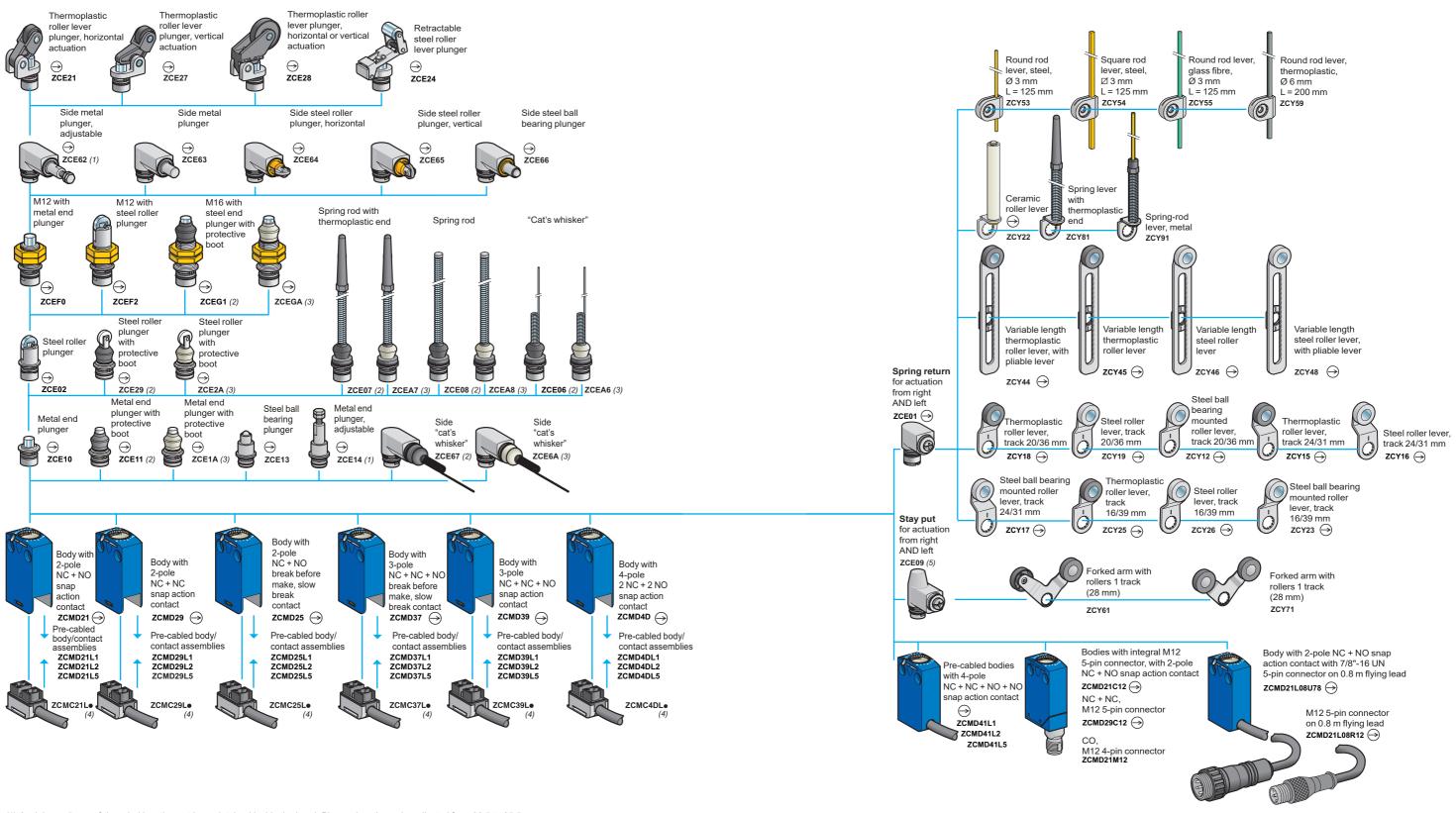
(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep. e: 8 mm max., panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm. f: 8 mm max., panel cut-out Ø 16.5 mm, fixing nut thickness 3.5 mm.



Presentation

Limit switches

XC Standard range Miniature design, metal, XCMD Variable composition



(1) A minimum 5 mm of threaded length must be maintained inside the head. Plunger length can be adjusted from 30.5 to 35.5 mm.

- (2) Nitrile boot for indoor use. (3) Silicone boot for outdoor use.

(4) Connection components: replace the "•" in the reference with the required cable length in metres (1, 2, 3, 5, 7 or 10 m). For example, ZCMC21Le becomes ZCMC21L7 for a 7 m cable.

Note: Only cable lengths of 1, 2 and 5 m are available for connection components ZCMC37Le, ZCMC39Le and ZCMC4DLe

(5) Suitable with bodies: ZCMD21, ZCMD29, ZCMD39, ZCMD41, ZCMD4D, ZCMD21C12, ZCMD21M12, ZCMD29C12 or ZCMD21L08 •• •





XC Standard range Miniature design, metal, XCMD Body/contact assemblies

520720	000	

ZCMD6• ZCMD7• ZCMD4D

Body/contac					
Type of contact	Positive operation (1)	Scheme	Type of contact	Reference	Weight kg
2-pole					
NC + NO snap action	\ominus	M GN-YE	Standard	ZCMD21	0.055
		HK-WH	Gold plated	ZCMD61	0.055
NC + NC snap action	\ominus	₩ ₽ 	Standard	ZCMD29	0.055
		BK-WH RD-WH	Gold plated	ZCMD69	0.055
NC + NO break before make, slow break	\ominus	M GN-YE	Standard	ZCMD25	0.055
			Gold plated	ZCMD65	0.055
3-pole					
NC + NC + NO break before make, slow break	Θ		Standard	ZCMD37	0.055
		RD-WH	Gold plated	ZCMD77	0.055
NC + NC + NO snap action	\ominus		Standard	ZCMD39	0.055
		BK-WH RD-WH	Gold plated	ZCMD79	0.055
4-pole					
2 NC + 2 NO snap action	Ð		Standard E 1	ZCMD4D	0.055

(1) \bigcirc bodies with contacts assuring positive opening operation.

References (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Pre-cabled body/contact assemblies

12/005	

ZCMD••L•

Body/contac	ct assen	nblies with rem	ovable c	able	
Type of contact	Positive operation (1)	Scheme	Length of cable in metres	Reference	Weight kg
2-pole	_				
NC + NO snap action	\ominus		1	ZCMD21L1	0.160
		H K K H	2	ZCMD21L2	0.250
		BK-WH	5	ZCMD21L5	0.520
NC + NC snap action	Θ		1	ZCMD29L1	0.160
·		[// GN-YE 王 王	2	ZCMD29L2	0.250
		BK-WH RD-WH -†-	5	ZCMD29L2	0.520
NC + NO break before	\ominus	꽃 명	1	ZCMD25L1	0.160
make, slow break		GN-YE	2	ZCMD25L2	0.250
		HW- BR- BR- HM- F	5	ZCMD25L5	0.520
3-pole					
NC + NC + NO break before	\ominus	X R B	1	ZCMD37L1	0.160
make, slow break	17- 5	[7-7-1]GN-YE 5 5	2	ZCMD37L2	0.250
		BK-WH RD-WH BN	5	ZCMD37L5	0.520
NC + NC + NO snap action	7-	7	1	ZCMD39L1	0.160
			2	ZCMD39L2	0.250
		BK-WH RD-WH BN	5	ZCMD39L5	0.520
4-pole					
2 NC + 2 NO snap action	Θ	ਁ <u>₩</u> 	1	ZCMD4DL1	0.160
			2	ZCMD4DL2	0.250
			5	ZCMD4DL5	0.520
Pre-cabled b	odies/c	contact assemb	lies (fixe	d cable)	
	\sim		1	7CMD4414	0.460
2 NC + 2 NO snap action	\ominus	ਁ <u><u></u> <u> </u> <u> </u></u>	1	ZCMD41L1	0.160
		BK-WH RD-WH VT-WH	2	ZCMD41L2	0.250
			5	ZCMD41L5	0.520
Pre-cabled b	odies v	vith gold contac	ts (fixed	cable)	
4-pole				,	
2 NC + 2 NO	\ominus	뛰면 말 돈	1	ZCMD81L1	0.160
snap action		<u>↓</u> <u>↓</u> <u>↓</u> <u>↓</u> <u>↓</u> <u>↓</u> <u>↓</u> <u>↓</u>	2	ZCMD81L2	0.250
		BK-WH RD-WH BN VT-WH	5	ZCMD81L5	0.520

(1) \bigcirc bodies with contacts assuring positive opening operation.

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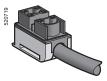
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Limit switches

XC Standard range Miniature design, metal, XCMD Connection components

	Pre-cabled con	nection compone	onts with	PVC cable	
	2-pole	nection compone			
	NC + NO	묏 핑	1	ZCMC21L1	0.100
	snap action	1 4	2	ZCMC21L2	0.190
			3	ZCMC21L3	0.280
		BK-WH	5	ZCMC21L5	0.460
CMC2eLee		ß	7	ZCMC21L7	0.700
CMC3•L••			10	ZCMC21L10	0.970
	NC + NC	粌 입	1	ZCMC29L1	0.100
	snap action	17-7 GN-YE	2	ZCMC29L2	0.190
			3	ZCMC29L3	0.280
		RD-WH	5	ZCMC29L5	0.460
			7	ZCMC29L7	0.700
			10	ZCMC29L10	0.970
	NC + NO	BK D	1	ZCMC25L1	0.100
	break before make, slow break	F-1 GN-YE	2	ZCMC25L2	0.190
	Slow broak		3	ZCMC25L3	0.280
			5	ZCMC25L5	0.460
			7	ZCMC25L7	0.700
			10	ZCMC25L10	0.970
	3-pole				
	NC + NC + NO	못 	1	ZCMC37L1	0.100
	break before make, slow break	77-1 GN-YE	2	ZCMC37L2	0.190
	Slow Dieak	BK-WH BN BN	5	ZCMC37L5	0.460
	NC + NC + NO	BU BY	1	ZCMC39L1	0.100
	snap action	7-7-\ GN-YE	2	ZCMC39L2	0.190
		BK-WH = BN BN H	5	ZCMC39L5	0.460
	4-pole				
	2 NC + 2 NO	₩ ₽ ₽ ×	1	ZCMC4DL1	0.100
	snap action		2	ZCMC4DL2	0.190
		RK-WH RD-WH 	5	ZCMC4DL5	0.460
		nection compone	ents with	CEI cable	
	(Connitato Elettrote				
	Type of contact	Scheme	Length of CEI cable	Reference	Weight kg

	2-pole
	NC + NO snap action
8	



ZCMC25T06 ZCMC21T•

ZCMC21E•

1	· · · · · · · · · · · · · · · · · · ·			
Type of contact	Scheme	Length of CEI cable in metres	Reference	Weight kg
2-pole				
NC + NO	X N	1	ZCMC21E1	0.100
snap action	F-1 GN-YE	2	ZCMC21E2	0.190
	the second is a second	3	ZCMC21E3	0.280
	BK-WH	5	ZCMC21E5	0.460
	_	7	ZCMC21E7	0.700
		10	ZCMC21E10	0.970

Pre-cabled connection components with halogen free cable (2)

Type of contact	Positive operation (3)	Scheme	Length of cable in metres	Reference	Weight kg
2-pole					
NC + NO break before make, slow break	\ominus		0.6	ZCMC25T06	0.080
NC + NO snap action	\ominus	1 3	1	ZCMC21T1	0.130
shap action		7	2	ZCMC21T2	0.250
		2 4 4	5	ZCMC21T5	0.520

(1) Cable not UL or CSA certified.
 (2) For other types of contacts and cable, please contact our Customer Care Centre.

(3) \bigcirc bodies with contacts assuring positive opening operation.

Telemecanique Sensors

References (continued)

Limit switches

XC Standard range Miniature design, metal, XCMD Separate parts

	_					
	Bodies with g	Positive operation (1)	Scheme	nnector Connector	Reference	Weight kg
	2-pole NC + NO snap action	-	 7	M12 5-pin	ZCMD61C12	0.065
	NC + NC snap action	-		M12 5-pin	ZCMD69C12	0.065
	Single-pole					
ZCMD61•••	CO snap action	-		M12 4-pin	ZCMD61M12	0.065
	Accessories					
	Description		Positive operation (1)	Suitable levers for use with head	Reference	Weight kg
	Rotary head, withou spring return, for au from right AND left from right OR left	ctuation	\ominus	ZCY12, ZCY15, ZCY16, ZCY17, ZCY18, ZCY19, ZCY22, ZCY23, ZCY25, ZCY26, ZCY39, ZCY53, ZCY54, ZCY55, ZCY81	ZCE05	0.045
XCMZ06 XCMZ07	Spacer for mountin multi-track XCMD	g	-	-	XCMZ06	0.005
90206	Spacer for angular positioning of head adjustable levers, fr other than -90°, 0° a	or values Ind 90°	- tact asse	_ mblies, with	хсмzo7 rotary head (0.005 without
	operating lever)					
	Type of contact	Positive operation (1)	Scheme	Length of cable in metres	Reference	Weight kg
	2-pole	-				
	NC + NO snap action	\ominus		1 E	XCMD2101L1	0.180
XCMD2•01L1	NC + NO break before make, slow break	\ominus	HM-YA	1 E 	XCMD2501L1	0.180
292	Body/contact	asseml		rotary head	(without operatin	g lever),
	connector					,,,
	Type of contact	Positive operation (1)	Scheme	Connector	Reference	Weight kg
	2-pole					
	NC + NO snap action	\ominus		M12 5-pin	XCMD2101C12	0.110
0	Single-pole					
	CO snap action	-		M12 4-pin	XCMD2101M12	0.110
XCMD2101•12	snap action $(1) \bigoplus bodies with co$	ontacts or he	ad assuring p		eration.	

Presentation

Limit switches XC Standard range

Miniature design, metal, XCMV for mobile equipment

The range of XCMV limit switches is an offer dedicated to mobile equipment:

- special connectors
- a metal body for robustness
- compact dimensions (among the smallest on the market)

With head for linear (plunger) and rotary (lever) movement

- IP 69 degree of protection, for high-pressure cleaning
- for outdoor use at -25 °...+70 °C

Complete units with Deutsch DT04-4P connector







Page 53

Complete units with AMP Superseal 1.5 connector

□ With head for linear (plunger) and rotary (lever) movement



Page 54





Complete units with M12 connector With head for linear (plunger) and rotary (lever) movement







Presentation (continued)

Limit switches

XC Standard range Miniature design, metal, XCMV for mobile equipment

D With head for linear (plunger) and rotary (lever) movement **Modular units** Body with Deutsch DT04-4P connector Pages 56 and 57 D With head for linear (plunger) and rotary (lever) movement **Modular units** Body with AMP Superseal 1.5 connector Pages 58 and 59 D With head for linear (plunger) and rotary (lever) movement **Modular units** Body with M12 connector Pages 60 and 61 □ With head for linear (plunger) and rotary (lever) movement **Modular units** Pre-cabled body

Telemecanique Sensors

Pages 62 and 63

Characteristics

Limit switches

XC Standard range Miniature design, metal, XCMV for mobile equipment

Environmental cha	aractoristics				
		((UD			
Product certifications		CE, cURus			
Conformity to standards	Products	EN/IEC 60947-5-1, UL 508, CSA C22-2 n°14	, GB/T 14048.5		
	Machine assemblies	EN/IEC 60204-1			
Protective treatment		Standard version: "TC"			
Ambient air temperature	For operation	- 25+ 70 °C (- 40+ 70 °C with ZCE106, Z	CE026 and ZCE016 heads)		
	For storage	- 40+ 70 °C			
Vibration resistance		± 1.76 mm (1060 Hz), 25 gn (61500 Hz)	conforming to IEC 60068-2-6		
Shock resistance		40 gn (11 ms) conforming to IEC 60068-2-27			
Protection against electric	shock	Class III conforming to IEC 61140, class 2 con	nforming to UL 508		
Degree of protection	Switches with 4-pin M12 connector	IP 66, IP 67 and IP 69 conforming to EN/IEC	60529 ; IK 04 conforming to EN 62262		
	Switches with 4-pin Deutsch DT04-4P or AMP Superseal 1.5 connector	IP 66, IP 67 and IP 69 conforming to EN/IEC (60529 ; IK 06 conforming to EN 62262		
	Pre-cabled swiches	IP 66 and IP 67 conforming to EN/IEC 60529			
Materials		Body: Zamak, heads: Zamak, connectors: the	ermoplastic, cable: PvR		
Repeat accuracy		0.1 mm on the tripping points, with 1 million o	perating cycles for head with end plunger		
Contact block cha	racteristics				
Rated operational	Switches with 4-pin	\sim AC-14: Ue = 24 V. le = 3 A. lth = 4 A			
characteristics	M12 connector	= DC-13; Ue = 24 V, le = 1 A, conforming to I	EC 60947-5-1, EN 60947-5-1		
	Pre-cabled swiches or switches with 4-pin Deutsch DT04-4P or AMP Superseal 1.5 connector	\sim AC-14; Ue = 24 V, Ie = 3 A, Ith = 6 A \therefore DC-13; Ue = 24 V, Ie = 1 A, conforming to	IEC 60947-5-1, EN 60947-5-1		
Rated insulation voltage		Ui = 36 V degree of pollution 3 conforming to Ui = 36 V conforming to UL 508, CSA C22-2 r			
Rated impulse withstand ve	oltage	U imp = 0.8 kV conforming to IEC 60947-1, IEC 60664			
Positive operation (depend	ing on model)	NC contacts with positive opening operation conforming to IEC 60947-5-1			
Resistance across termina	ls	≤ 25 mΩ conforming to IEC 60255-7 category	/ 3		
Short-circuit protection.		6 A cartridge fuse type gG (gl)			
Minimum actuation speed (for head with end plunger)	Snap-action contact: 0.01 m/minute, slow-break contact: 6 m/minute			
Electrical durability		 Conforming to IEC 60947-5-1 Appendix C Utilisation categories AC-14 and DC-13 Maximum operating rate: 3600 operating of Load factor: 0.5 			
	AC supply \sim 50/60 Hz	XCMV snap-action (NC+NO contact)	XCMV slow-break (NC+NO contact)		
	.m inductive circuit	Switches with M12 connector	(
		5 6 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	so f a b b c c c c c c c c c c c c c		
	DC supply	Current in A Power broken in W for 0.1 million operating cycles Voltage V 24 mn A 2	Current in A Current in A Power broken in W for 1.3 million operating cycles Voltage V 24 mm A 0.5		

Telemecanique



XC Standard range Miniature design, metal, XCMV Complete units for mobile equipment

Type of head	Type of head		body)	Rotary (fixing by the body)
Form conforming to EN 50	0047	В	C	A
Type of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever (1)
Positive operation		\ominus	\ominus	\ominus
References of con	mplete units with male	e Deutsch DT04-4P co	onnector	
2-pole NC + NO snap action	on	XCMV2110D44	XCMV2102D44	XCMV2115D44
		1,8 4,2(P) 1,2 4,2(P) 1,2 4,2(P) 1,2 4,2(P) 1,2 4,2(P) 1,2 4,2(P) 5,5 mm	3,1(A) 7(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) ^{1.4} ^{1.2} ^{3.4} 90° 12°
2-pole NC + NO break before	ore make, slow break	XCMV2510D44	XCMV2502D44	XCMV2515D44
		1,8 3,1(P) 1,2 3,4 0 2,6 5 mm	3,1(A) 5,6(P) ¹⁻² ¹⁻² ¹⁻² 0 4,6 mm	25° 45°(P) 1-2 3-4 0 36° 90°
Weight (kg)		0.090	0.090	0.130
Contact operation		closed		(A) = cam displacement (P) = positive opening point
	characteristics not she			51)
Switch actuation		On end	By 30° cam	
Type of actuation				
Maximum actuation speed		0.5 m/s	0.5 m/s	1.5 m/s
Mechanical durability (in millions of operating cyc	les)	10		
Minimum force or torque	For tripping	8.5 N	7 N	0.1 N.m
	For positive opening	42.5 N	35 N	0.5 N.m
(1) Can be adjusted through				



XC Standard range Miniature design, metal, XCMV Complete units for mobile equipment

Type of head	Plu	nger (fixing by the body)		Rotary (fixing by the body)
Form conforming to EN 50047	В		С	A
Type of operator	Meta	al end plunger	Steel roller plunger	Thermoplastic roller lever (1)
Positive operation	\ominus		\ominus	$\overline{\varTheta}$
References of complete	units with male AMP S	uperseal 1.5 conn	ector	
2-pole NC + NO snap action	XCM	ID2110AM4	XCMD2102AM4	XCMD2115AM4
	1-2 3-4 1-2 3-4 (1,8 4,2(P) 5mm 0,8	3,1(A) 7(P) 3,4 1,4 3,1(A) 7(P) 1,4	25° 70°(P) ¹²
2-pole NC + NO break before make,	slow break XCM	ID2510AM4	XCMD2502AM4	XCMD2515AM4
	1-2 3-4 0	1,8 3,1(P) 2,6 5 mm	3,1(A) 5,6(P) 3.4 0 4,6 mm	25° 45°(P) 1-2 0 36° 90°
Weight (kg)	0.09	0	0.090	0.130
Contact operation		closed open		(A) = cam displacement (P) = positive opening point
Characteristics				
Switch actuation	One	end	By 30° cam	
Type of actuation	۱ <u>۱</u> ۲			÷ r⊖i
Maximum actuation speed	0.5 r	m/s	0.5 m/s	1.5 m/s
Mechanical durability (in millions of operating cycles)	10			
Minimum force or torque For tripp	ing 8.5 I	N	7 N	0.1 N.m

(1) Can be adjusted throughout 360° in 15° steps.



XC Standard range Miniature design, metal, XCMV Complete units for mobile equipment

Type of head		Plunger (fixing by the	body)	Rotary (fixing by the body)
			Tetracentical	Terroration
Form conforming to EN 50	0047	В	C	А
Type of operator	ype of operator		Steel roller plunger	Thermoplastic roller lever (1)
Positive operation		Θ	\ominus	\ominus
References of con	mplete units with M12	connector		
2-pole NC + NO snap actio	on	XCMV2110M12	XCMV2102M12	XCMV2115M12
		1,8 4,2(P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	3.1(A) 7(P) 3.4 3.4 0 1.4 	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 3-4 0 12° 90°
2-pole NC + NO break before	ore make, slow break	XCMV2510M12 1,8 3,1(P) ¹⁻² 3-4 0 2,6 5 mm	XCMV2502M12 3.1(A) 5,6(P) 3-4 0 4,6 mm	XCMV2515M12 25° 45°(P) ^{1.2} ^{1.4} 0 36° 90°
Weight (kg)		0.090	0.090	0.130
Contact operation		closed		(A) = cam displacement (P) = positive opening point
Complementary of	characteristics not sho		naracteristics (see page	51)
Switch actuation		On end	By 30° cam	
Type of actuation				
Maximum actuation speed		0.5 m/s	0.5 m/s	1.5 m/s
Mechanical durability (in millions of operating cyc	les)	10		
Minimum force or torque	For tripping	8.5 N	7 N	0.1 N.m
	For positive opening	42.5 N	35 N	0.5 N.m
(1) Can be adjusted through	nout 360° in 15° steps.			

Limit switches

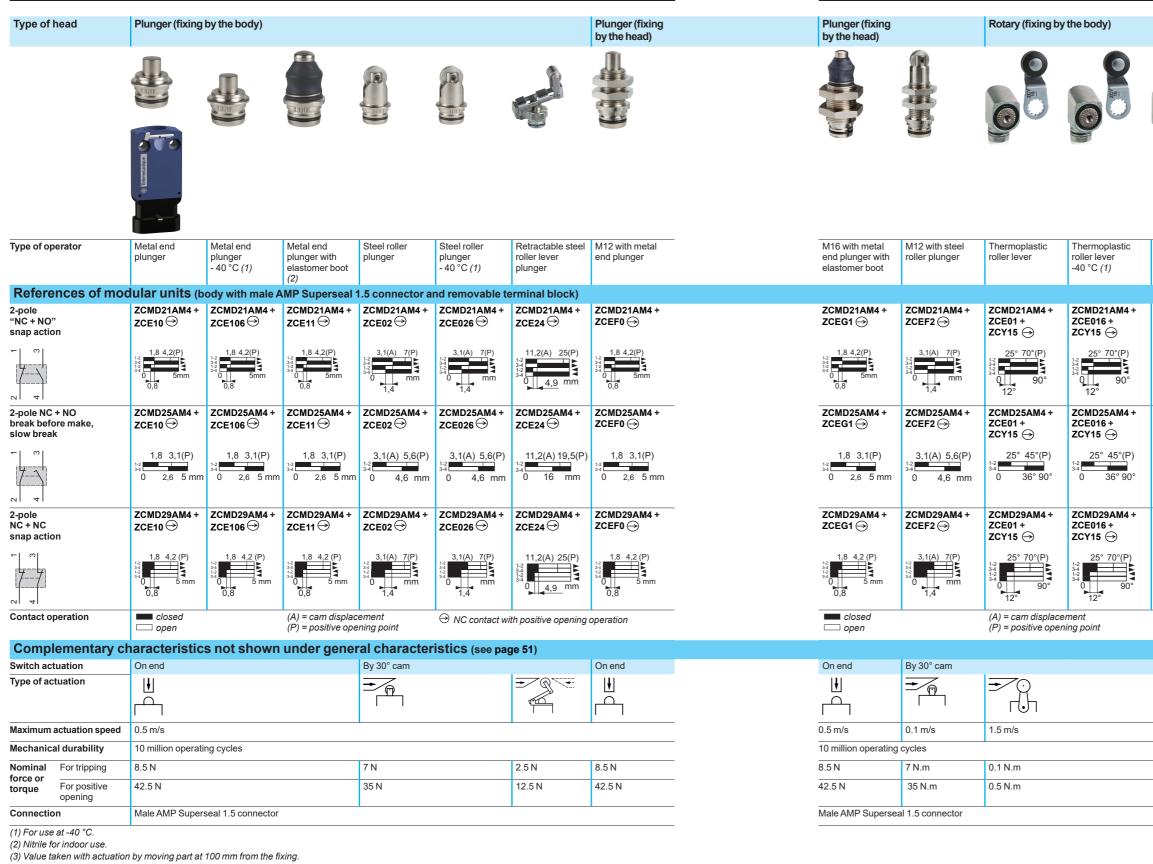
XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment

Plunger (fixing	by the body)					Plunger (fixing by the head)	Plunger (fixing by the head)	l	Rotary (fixing by	y the body)				Multi-directional
						I II								1
					C.								22745	
	Metal end plunger	Metal end plunger with	Steel roller plunger	Steel roller plunger	Retractable steel roller lever	M12 with metal end plunger	M16 with metal end plunger with	M12 with steel roller plunger	Thermoplastic roller lever	Thermoplastic roller lever	Steel roller lever	Roller lever with ball bearing	Variable length thermoplastic	"Cat's whisker" (3
	- 40 °C (1)	elastomer boot (2)		- 40 °C (1)	plunger		elastomer boot			-40 °C (1)		mounted roller	roller lever	
ular units (b	ody with male [Deutsch DT04-4	P connector an	d removable ter	rminal block)					1	1			
	ZCMV21D44 + ZCE106 ⊖	ZCMV21D44+ ZCE11 ⊖	ZCMV21D44+ ZCE02 ⊖	ZCMV21D44 + ZCE026 ⊖	ZCMV21D44 + ZCE24 ⊖	ZCMV21D44+ ZCEF0 ⊖	ZCMV21D44 + ZCEG1 ⊖	ZCMV21D44 + ZCEF2 →	ZCMV21D44 + ZCE01 + ZCY15 ⊖	ZCMV21D44 + ZCE016 + ZCY15 ⊖	ZCMV21D44 + ZCE01 + ZCY16 ⊖	ZCMV21D44 + ZCE01 + ZCY17 ⊖	ZCMV21D44 + ZCE01 + ZCY45 ⊖	ZCMV21D44 + ZCE06
1,8 4,2(P) 1,2 1,2 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4	1,8 4,2(P) 1,3 4,2(P) 1,2 4 1,2 5 1,2 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1,8 4,2(P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	3,1(A) 7(P) 1-2 3-4 1-2 3-4 0 1,4 mm	3,1(A) 7(P) 1-2 3-4 0 1,4 0 1,4	11,2(A) 25(P) 1-2 3-4 1-2 3-4 0 4,9 mm	1.8 4,2(P) 1.2 1.4 1.2 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8	1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P) 1.8 4.2(P)	3,1(A) 7(P) 1-2 3-4 1-2 3-4 0 1,4	25° 70°(P) ¹² ³⁴ 90° 12°	25° 70°(P) ¹² ¹⁴ ¹² ³⁴ ¹² ^{90°} 12°	25° 70°(P) ¹² ³⁴ ³⁴ 90° 12°	25° 70°(P) ³⁴ ¹⁻² ³⁴ 90° 12°	25° 70°(P) ³⁴ ³⁴ 90° 12°	20° 1-2 3-4 3-4 3-4 3-4
	ZCMV25D44 + ZCE106 ⊖	ZCMV25D44 + ZCE11 ⊖	ZCMV25D44+ ZCE02⊖	ZCMV25D44 + ZCE026⊖	ZCMV25D44 + ZCE24⊖	ZCMV25D44 + ZCEF0 →	ZCMV25D44 + ZCEG1 ⊖	ZCMV25D44 + ZCEF2 →	ZCMV25D44 + ZCE01 + ZCY15 ⊖	ZCMV25D44 + ZCE016 + ZCY15 ⊖	ZCMV25D44 + ZCE01 + ZCY16 ⊖	ZCMV25D44 + ZCE01 + ZCY17 ⊖	ZCMV25D44 + ZCE01 + ZCY45 ⊖	ZCMV25D44 + ZCE06
1,8 3,1(P) 1,8 3,1(P) 1,2 3,4 0 2,6 5 mm	1,8 3,1(P) 1-2 3-4 0 2,6 5 mm	1,8 3,1(P) ^{1.2} ^{3.4} 0 2,6 5 mm	3,1(A) 5,6(P) ¹⁻² ³⁻⁴ 0 4,6 mm	3,1(A) 5,6(P) ¹⁻² ³⁻⁴ 0 4,6 mm	11,2(A) 19,5(P) ¹⁻² ³⁻⁴ 0 16 mm	1,8 3,1(P) ^{1,2}	1,8 3,1(P) ¹²	3,1(A) 5,6(P) 34 0 4,6 mm	25° 45°(P) ¹⁻² 3-4 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°	25° 45°(P) ¹⁻² 3-4 0 36° 90°	25° 45°(P) ^{1.2} ^{3.4} 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°	20° ¹⁻² 3-4 40°
	ZCMV29D44 + ZCE106 ⊖	ZCMV29D44 + ZCE11 ⊖	ZCMV29D44+ ZCE02⊖	ZCMV29D44 + ZCE026 ⊖	ZCMV29D44 + ZCE24 ⊖	ZCMV29D44 + ZCEF0 →	ZCMV29D44 + ZCEG1⊖	ZCMV29D44 + ZCEF2 ⊖	ZCMV29D44 + ZCE01 + ZCY15 ⊖	ZCMV29D44 + ZCE016 + ZCY15 ⊖	ZCMV29D44 + ZCE01 + ZCY16 ⊖	ZCMV29D44 + ZCE01 + ZCY17 →	ZCMV29D44 + ZCE01 + ZCY45 ⊖	ZCMV29D44 + ZCE06
1,8 4,2 (P) 1,8 4,2 (P) 1,2 4 1,2 4 1,8 4,2 (P) 5 mm	1,8 4,2 (P) 1,2 (P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	1,8 4,2 (P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	3,1(A) 7(P) 34 12 34 0 mm 1,4	3,1(A) 7(P) 34 34 0 1,4	11,2(A) 25(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	1,8 4,2 (P) 1,8 4,2 (P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	1,8 4,2 (P)	3,1(A) 7(P) 34 34 0 mm 1,4	25° 70°(P) 34 34 0 12° 90°	25° 70°(P) 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	25° 70°(P) 34 34 0 12° 90°	25° 70°(P) 1-2 3-4 3-4 0 12°	25° 70°(P)	20° 1-2 3-4 3-4 3-4 1-2 3-4
	1	(A) = cam displa	cement	⊖ NC contact w	ith positive opening	operation						⊖ NC contact wit	th positive opening o	peration
aractoristic	e not chown	() / /	0,1	istics (ass pa	ao 51)				(1) - positive oper					
	S HOL SHOWI	under gene		istics (see pa	ge 51)	On end	On end	By 30° cam						By any moving pa
0.5 m/s					1	P '	0.5 m/s	0.1 m/s	1.5 m/s				1.5 m/s	1 m/s
10 million operati	ng cycles						10 million operation	ng cycles	1				10 million	5 million
8.5 N			7 N		2.5 N	8.5 N	8.5 N	7 N.m	0.1 N.m				0.1 N.m	0.1 N.m
42.5 N			35 N		12.5 N	42.5 N	42.5 N	35 N.m	0.5 N.m				0.5 N.m	-
Deutsch DT04-4F	^D connector		1		1	1	Deutsch DT04-4P	P connector	1				1	
	ZCMV21D44 + ZCE10 $\textcircled{>}$ 1.8 4.2(P) 0.0,8 5mm ZCMV25D44 + ZCE10 $\textcircled{>}$ 1.8 3.1(P) 0.2,6 5mm ZCMV29D44 + ZCE10 $\textcircled{>}$ 1.8 4.2(P) 0.2,6 5mm ZCMV29D44 + ZCE10 $\textcircled{>}$ 0.3,8 5mm ZCMV29D44 + ZCE10 $\textcircled{>}$ 0.3,6 5mm ZCMV29D44 + ZCMV29D44 + ZCE10 $\textcircled{>}$ 0.5,6 5mm ZCMV29D44 + ZCMV29D44 + ZCE10 $\textcircled{>}$ 0.5,6 5mm ZCMV29D44 + ZCMV29D44 + ZCMV29D4 + ZCMV200	plunger plunger -40 °C (1) ular units (bout male I ZCMV21D44 + ZCE10 \bigcirc 1.8 4.2(P) 1.8 4.2(P) 1.8 3.1(P) 2.6 5 mm ZCMV25D44 + ZCE10 \bigcirc 1.8 3.1(P) 0 2.6 5 mm 2.6 5 mm 2.6 5 mm 1.8 3.1(P) 0 2.6 5 mm 1.8 3.1(P) 0 2.6 5 mm 1.8 3.1(P) 0 2.6 5 mm 1.8 3.1(P) 0 2.6 5 mm 0 2.6 5 mm 1.8 4.2(P) 0 3.6 5 mm 1.8 3.1(P) 0 3.6 5 mm 1.8 3.1(P) 0 3.6 5 mm 1.8 4.2(P) 0 3.6 5 mm 1.8 4.2(P) 1.8 4.2(P)	plunger -40 °C (1)plunger with elastomer boot (2)ular units (body with male Deutsch DT04-4 ZCMV21D44 + ZCENV21D44 + ZCENV21D44 + ZCE106 \bigcirc ZCMV21D44 + ZCE10 \bigcirc ZCMV21D44 + ZCE11 \bigcirc ZCMV25D44 + ZCE10 \bigcirc ZCMV25D44 + ZCE10 \bigcirc ZCMV25D44 + ZCE11 \bigcirc ZCMV25D44 + ZCE10 \bigcirc ZCMV25D44 + ZCE10 \bigcirc ZCMV25D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE10 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZCMV29D44 + ZCE11 \bigcirc ZON construction \bigcirc Image: State of the state	plungerplunger -40 ° C (1)plunger with elastomer boot (2)plunger with elastomer boot (2)plungerular units (body with male Deutsch DT04-4P connector an ZCMV21D44 + ZCE10 \textcircled{O} ZCMV21D44 + ZCE10 \textcircled{O} ZCMV21D44 + ZCE11 \textcircled{O} ZCMV21D44 + ZCE11 \textcircled{O} ZCMV25D44 + ZCMV25D44 + ZCE10 \textcircled{O} ZCMV25D44 + ZCE10 \textcircled{O} ZCMV29D44 + ZCE10 \textcircled{O} ZCMV29D4	plunger $-40 ^{\circ}C(1)$ plunger assomer boot (2)plunger plunger $-40 ^{\circ}C(1)$ plunger $-40 ^{\circ}C(1)$ plunger $-40 ^{\circ}C(1)$ Ular Units (body with male Deutsch DT04-4P connector and removable ter ZCMV21D44+ ZCE10 \bigcirc ZCMV21D44+ ZCEV21D44+ ZCE11 \bigcirc ZCMV21D44+ ZCEV25D44+ ZCEV25D44+ZCMV25D44+ ZCMV25D44+ ZCEV25D44+ZCMV25D44+ ZCMV25D44+ ZCEV25D44+ ZCEV25D44+ZCMV25D44+ ZCMV25D44+ ZCEV25D44+ ZCEV25D44+ ZCEV25D44+ZCMV25D44+ ZCMV25D44+ ZCEV25D44+ ZCMV25D44+ ZCMV25D44+ ZCMV25D44+ ZCMV25D44+ Z	plunger plungerplunger (1)plunger with elastomer boot (2)plunger plungerplunger (40 °C (1))coller lever plungerullar Units (body with male Deutsch DT044Pconnector and removable terminal block)ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV21D44+ZCMV21D44+ ZCENV22D44+ZCMV22D44+ ZCENV22D44+ZCMV22D44+ ZCENV22D44+ZCMV22D44+ ZCE02 ©ZCMV22D44+ ZCE02 ©ZCMV22D44+ ZCENV22D44+ZCMV22D44+ ZCE02 ©ZCMV22D44+ ZCE02 © <t< td=""><td>$\begin{array}{c c c c c c c } \blunger \\ -40^{\circ}C(1) \\ -40^{\circ}C(1) \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunge$</td><td>plunger plunger plunger plunger plunger plunger plunger order (n) roller lever plunger end plunger en</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td><td>planger (planger (planger) planger (planger) planger (planger) planger (planger) red planger (planger)<!--</td--><td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td></td></t<>	$\begin{array}{c c c c c c c } \blunger \\ -40^{\circ}C(1) \\ -40^{\circ}C(1) \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunger \\ +40^{\circ}C(1) \\ \hline \blunger \\ \hline \blunge$	plunger plunger plunger plunger plunger plunger plunger order (n) roller lever plunger end plunger en	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	planger (planger (planger) planger (planger) planger (planger) planger (planger) red planger (planger) </td <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td>	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

(3) Value taken with actuation by moving part at 100 mm from the fixing.

Limit switches

XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment



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E Telemecaníque Sensors

			Multi-directional
		2015	
Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever	"Cat's whisker" (3)
ZCMD21AM4+ ZCE01+ ZCY16 ⊖	ZCMD21AM4+ ZCE01+ ZCY17 ⊖	ZCMD21AM4 + ZCE01 + ZCY45 ⊖	ZCMD21AM4 + ZCE06
25° 70°(P) 12 34 0 12° 90°	25° 70°(P) ¹² ³⁴ ³⁴ 90° 12°	25° 70°(P) 12 34 34 9 12° 90°	20°
ZCMD25AM4 + ZCE01 + ZCY16 ⊖	ZCMD25AM4+ ZCE01+ ZCY17 ⊖	ZCMD25AM4 + ZCE01 + ZCY45 ⊖	ZCMD25AM4 + ZCE06
25° 45°(P) 34 0 36° 90°	25° 45°(P) 1-2 3-4 0 36° 90°	25° 45°(P) 34 0 36° 90°	20° 1-2 3-4 40°
ZCMD29AM4+ ZCE01+ ZCY16 ⊖	ZCMD29AM4 + ZCE01 + ZCY17 ⊖	ZCMD29AM4 + ZCE01 + ZCY45 ⊖	ZCMD29AM4 + ZCE06
25° 70°(P) 34 34 0 12° 90°	25° 70°(P) 12° 25° 70°(P) 12°	25° 70°(P) 14 12 12 90° 90°	20° ¹⁻² ³⁻⁴ ³⁻⁴ ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴ ¹⁻² ³⁻⁴



	By any moving part
	+
1.5 m/s	1 m/s
10 million	5 million
0.1 N.m	0.1 N.m
0.5 N.m	-

Limit switches

XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment

Type of head	Plunger (fixing	by the body)					Plunger (fixing	P	lunger (fixing		Rotary (fixing by	(the body)			
po or noud	r iangoi (inting	sy allo sougy					by the head)		y the head)			liobouy			
															G
	(1) Telemecnique														2014
Гуре of operator	Metal end plunger	Metal end plunger - 40 °C <i>(1)</i>	Metal end plunger with elastomer boot (2)	Steel roller plunger	Steel roller plunger - 40 °C (1)	Retractable steel roller lever plunger	M12 with metal end plunger	e	116 with metal nd plunger with lastomer boot	M12 with steel roller plunger	Thermoplastic roller lever	Thermoplastic roller lever -40 °C (1)	Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever
References of mo	dular units (b	ody with male l	M12 connector	and removable	terminal block)										
-pole NC + NO" nap action	ZCMV21M12+ ZCE10⊖	ZCMV21M12 + ZCE106⊖	ZCMV21M12 + ZCE11 ⊖	ZCMV21M12+ ZCE02⊖	ZCMV21M12+ ZCE026⊖	ZCMV21M12+ ZCE24⊖	ZCMV21M12 + ZCEF0 ⊖		CMV21M12 + CEG1 ⊖	ZCMV21v + ZCEF2 →	ZCMV21M12 + ZCE01 + ZCY15 ⊖	ZCMV21M12 + ZCE016 + ZCY15 ⊖	ZCMV21M12 + ZCE01 + ZCY16 ⊖	ZCMV21M12 + ZCE01 + ZCY17 ⊖	ZCMV21M12 + ZCE01 + ZCY45 ⊖
	1.8 4,2(P) 1.2 1.8 4.2(P) 1.2 5mm 0,8 5mm	1,8 4,2(P) 1-2 3-4 0 0,8 5mm	1,8 4,2(P) 1,2 3,4 0 0,8 5mm	3,1(A) 7(P) 3-4 3-4 0 1,4 3-4 0 1,4	3,1(A) 7(P) 1:2 3:4 1:2 3:4 0 mm 1,4	11,2(A) 25(P) 1-2 3-4 1-2 3-4 0 4,9 mm	1,8 4,2(P) 1,3 4,2(P) 0,0 5mm 0,8 5mm	13 34 12 34	1,8 4,2(P) 0 5mm	3,1(A) 7(P) 34 34 34 0 mm 1,4	25° 70°(P) 12 34 0 12° 90°	25° 70°(P) ¹² ¹⁴ ¹⁵	25° 70°(P) ¹⁻² ³⁻²	25° 70°(P) 1-2 3-4 0 12° 90°	25° 70°(P) 1-2 3-2 3-4 0 12°
ul →l -pole NC + NO reak before make, low break	ZCMV25M12 + ZCE10 ⊖	ZCMV25M12 + ZCE106 ⊖	ZCMV25M12 + ZCE11 ⊖	ZCMV25M12 + ZCE02 ⊖	ZCMV25M12 + ZCE026 ⊖	ZCMV25M12+ ZCE24⊖	ZCMV25M12+ ZCEF0⊖		CMV25M12 + CEG1 ⊖	ZCMV25M12 + ZCEF2 →	ZCMV25M12 + ZCE01 + ZCY15 ⊖	ZCMV25M12 + ZCE016 + ZCY15 →	ZCMV25M12 + ZCE01 + ZCY16 →	ZCMV25M12 + ZCE01 + ZCY17 →	ZCMV25M12 + ZCE01 + ZCY45 ⊖
	1,8 3,1(P) 1-2 3-4 0 2,6 5 mm	1,8 3,1(P) 1-2 3-4 0 2,6 5 mm	1,8 3,1(P) 1,2 3,4 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1,1 1	3,1(A) 5,6(P) ¹⁻² 	3,1(A) 5,6(P) ¹⁻² ³⁻⁴ 0 4,6 mm	11,2(A) 19,5(P) 1-2 3-4 0 16 mm	1,8 3,1(P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2		1,8 3,1(P) 0 2,6 5 mm	3,1(A) 5,6(P) ¹² ³⁴ 0 4,6 mm	25° 45°(P) 34 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°	25° 45°(P) ¹⁻² ³⁻⁴ 0 36° 90°
N 4															
pole C + NC nap action	ZCMV29M12+ ZCE10⊖	ZCMV29M12 + ZCE106⊖	ZCMV29M12 + ZCE11 ⊖	ZCMV29M12+ ZCE02⊖	ZCMV29M12 + ZCE026⊖	ZCMV29M12+ ZCE24⊖	ZCMV29M12 + ZCEF0 ⊖		CMV29M12 + CEG1 ⊖	ZCMV29M12 + ZCEF2 ⊖	ZCMV29M12 + ZCE01 + ZCY15 ⊖	ZCMV29M12 + ZCE016 + ZCY15 ⊖	ZCMV29M12 + ZCE01 + ZCY16 ⊖	ZCMV29M12 + ZCE01 + ZCY17 ⊖	ZCMV29M12 + ZCE01 + ZCY45 ⊖
	1,8 4,2 (P) 1,8 4,2 (P) 1,2 1,2 1,8 4,2 (P) 1,8 1,8 4,2 (P) 5 mm 0,8	1,8 4,2 (P) 1,8 4,2 (P) 1,2 1,2 1,2 1,8 4,2 (P) 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	1,8 4,2 (P) 14 12 14 12 14 12 14 0 15 mm	3,1(A) 7(P) 34 0 mm 1,4	3,1(A) 7(P) 34 34 34 34 34 0 mm 1,4	11,2(A) 25(P) 1-2 3-4 1-2 3-4 0 4,9 mm	1.8 4,2 (P)	12 34 13 34	1,8 4,2 (P) 0 5 mm 0,8	3,1(A) 7(P) 34 34 34 0 mm 1,4	25° 70°(P) 1-2 3-4 0 12° 90°	25° 70°(P) 1-2 3-4 1-2 3-4 90°	25° 70°(P) 1-2 3-4 1-2 3-4 0 12° 90°	25° 70°(P) 1-2 3-4 3-4 0 12° 90°	25° 70°(P) 1-2 3-4 3-4 1-2 3-4 90°
Contact operation	closed	•	(A) = cam displa (P) = positive op		⊖ NC contact w	ith positive opening	operation		closed	-	(A) = cam displace (P) = positive open			⊖ NC contact wit	th positive opening c
Complementary cl	haracteristic	s not shown	under gene	eral character	ristics (see na	ge 51)			,						
Switch actuation	On end		gene	By 30° cam	(000 pu)	J- • · ,	On end	C)n end	By 30° cam					
Type of actuation	L								l ! ∟						-
Maximum actuation speed	0.5 m/s						1 1	$\frac{1}{0}$	5 m/s	0.1 m/s	1.5 m/s				1.5 m/s
lechanical durability	10 million operat	ina cvcles) million operating						10 million
ominal For tripping	8.5 N			7 N		2.5 N	8.5 N		5 N	7 N.m	0.1 N.m				0.1 N.m
orce or	42.5 N			35 N		12.5 N	42.5 N		2.5 N	35 N.m	0.5 N.m				0.5 N.m
orque For positive opening															

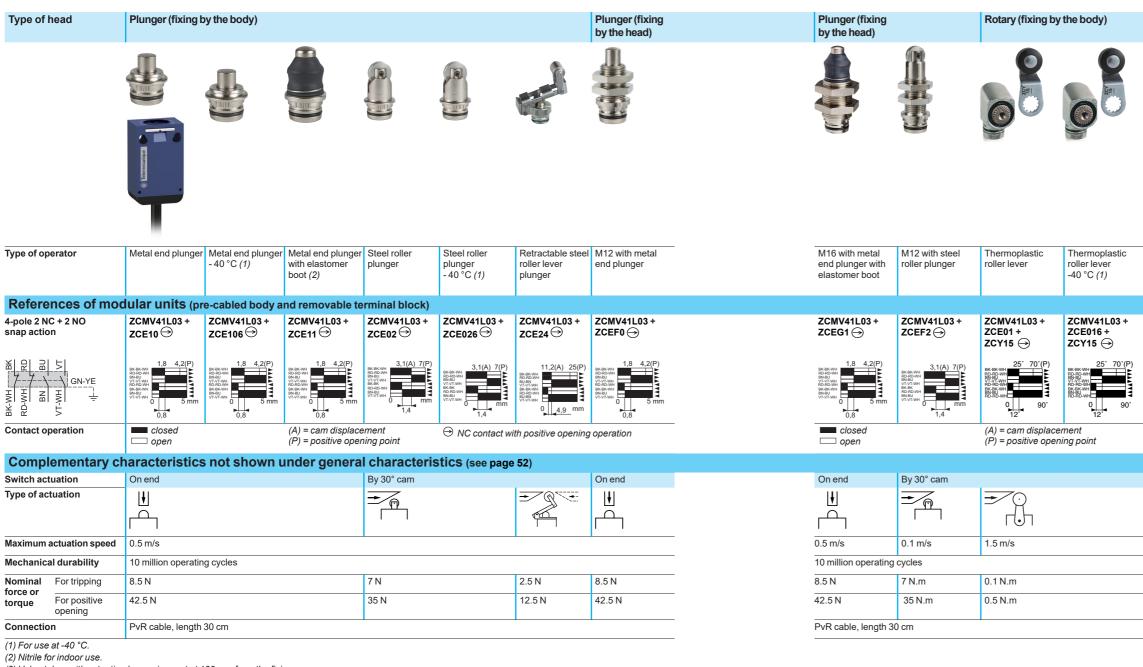
(3) Value taken with actuation by moving part at 100 mm from the fixing.

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Telemecanique Sensors

Limit switches

XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment

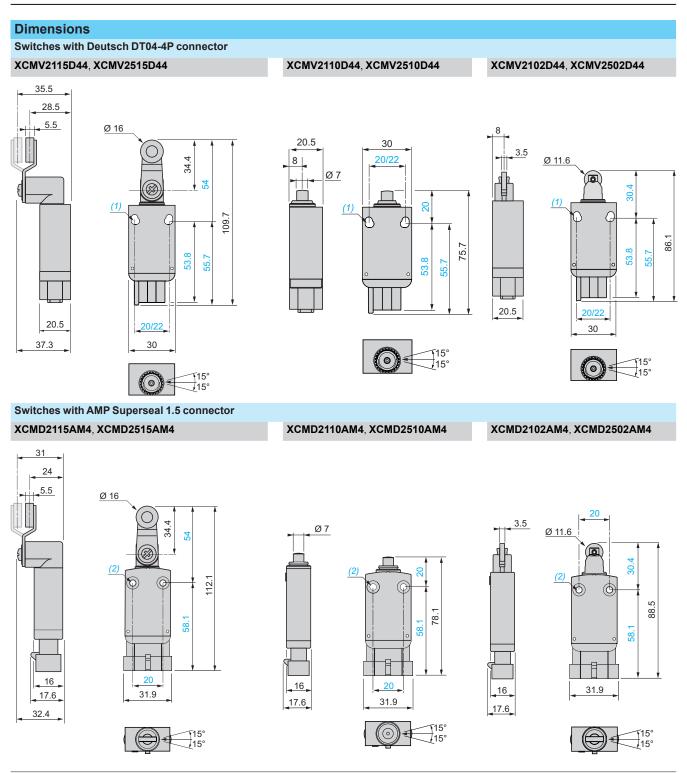


(3) Value taken with actuation by moving part at 100 mm from the fixing.

			Multi-directional
		ZCY15	
Steel roller lever	Roller lever with ball bearing mounted roller	Variable length thermoplastic roller lever	"Cat's whisker" (3)
ZCMV41L03 + ZCE01 + ZCY16 ⊖	ZCMV41L03 + ZCE01 + ZCY17 ⊖	ZCMV41L03 + ZCE01 + ZCY45 ⊖	ZCMV41L03 + ZCE06
25° 70°(P) BK-BK-WH BY DY WH BY DY WH DY DY WH DY DY WH DY DY D	25° 70°(P) BK-BK-WH BY DY WH BY DAD WH BY DAD WH BK-BK-WH BK-BK-WH 0 90°	25° 70'(P) BY BY WH BY DY WH BY DY WH HO HD WH U D D D WH D D D D WH D D D D WH D D D D WH D D D WH D D D D D D D D D D D D D D D D D D D	
<u>`</u>	⊖ NC contact with	positive opening ope	eration

	By any moving part
1.5 m/s	1 m/s
10 million	5 million
0.1 N.m	0.1 N.m
0.5 N.m	-
-	

XC Standard range Miniature design, metal, XCMV Complete units for mobile equipment

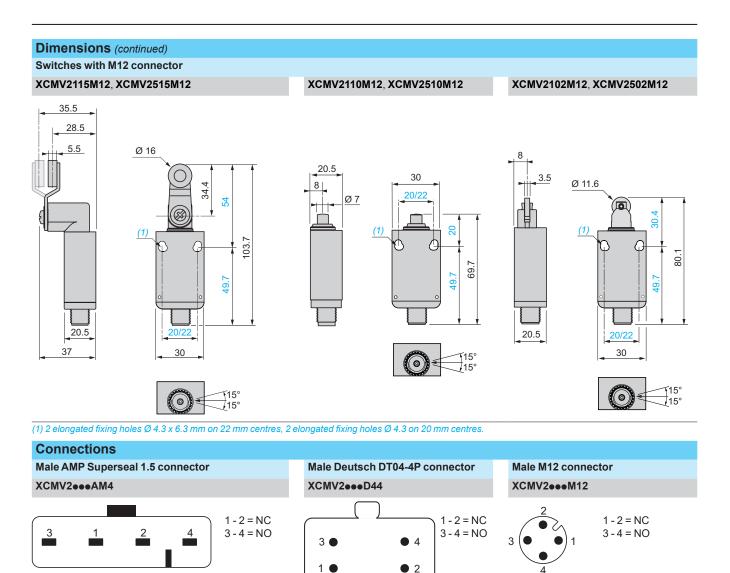


(1) 2 elongated fixing holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 elongated fixing holes Ø 4.3 on 20 mm centres. (2) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

Dimensions (continued), connections

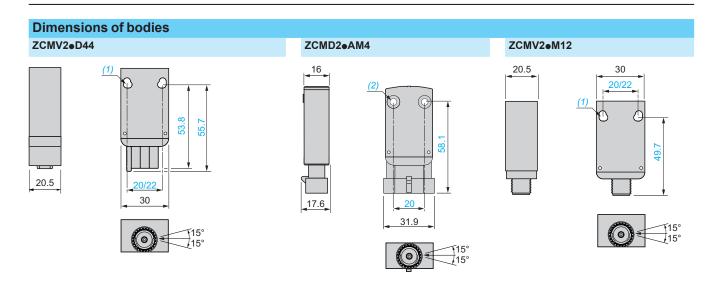
Limit switches

XC Standard range Miniature design, metal, XCMV Complete units for mobile equipment

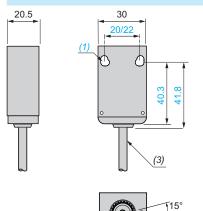




XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment

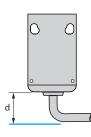


ZCMV41L03

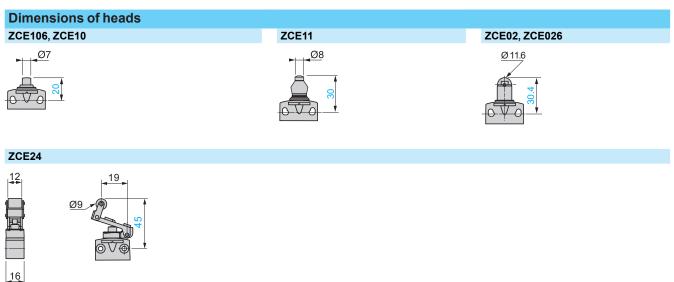


715

Mounting: distance required for connection

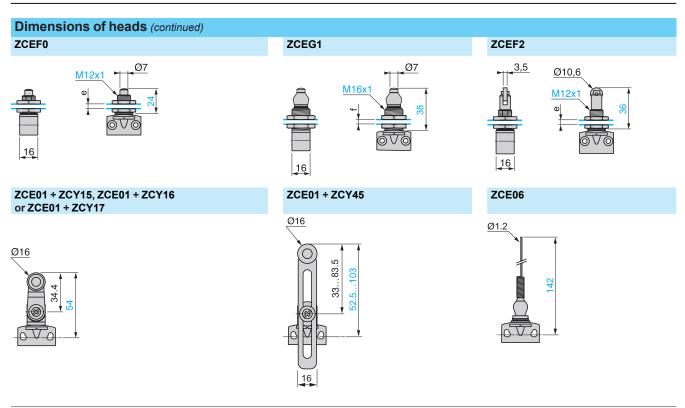


d: min. 20 mm



(1) 2 elongated fixing holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 elongated fixing holes Ø 4.3 on 20 mm centres.
(2) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.
(3) External diameter of cable 6.4 mm.

XC Standard range Miniature design, metal, XCMV Modular units for mobile equipment



e: 8 mm max., panel cut-out Ø 12.5 mm, fixing nut thickness 3.5 mm. f: 8 mm max., panel cut-out Ø 16.5 mm, fixing nut thickness 3.5 mm.



XC Basic range Miniature design, plastic, XCMH Pre-cabled

Complete units pre-cabled

With head for linear movement (plunger), lateral or axial cable output



Pages 70 et 71

 $\hfill\square$ With head for rotary movement (lever), lateral or axial cable output



Page 71

With head for multi-directional movement, lateral cable output



Page 72

General characteristics

Limit switches

XC Basic range Miniature design, plastic, XCMH Pre-cabled

Environment chara	acteristics				
Conformity to standards	Products	C€, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14			
	Machine assemblies	IEC 60204-1, EN 60204-1			
Product certifications		UL, cULus, UKCA			
Protective treatment	Standard version	"TC"			
Ambient air temperature	For operation	- 25+ 70 °C			
	For storage	- 40+ 70 °C			
Vibration resistance	Conforming to IEC 60068-2-6	5 gn (10500 Hz)			
Shock resistance	Conforming to IEC 60068-2-27	25 gn (18 ms)			
Electric shock protection		Class II conforming to IEC 61140 and NF C 20-030			
Degree of protection		IP 66, IP67 conforming to IEC 60529 IK 04 conforming to IEC 50102			
Materials	Bodies	Plastic			
	Heads	Zamak			
Contact block char	racteristics	1			
Rated operational characte		~AC-15 ; C300 (Ue = 240 V, Ie = 0.75 A) ; Ith = 3 A			
		DC-13 ; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix C, EN 60947-5-1			
Rated insulation voltage		Ui = 300 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14			
Rated impulse withstand vo	bltage	U imp = 4 kV conforming to IEC 60947-1, IEC 60664			
Short-circuit protection		6 A cartridge fuse type gG (gl)			

References, characteristics

Limit switches

XC Basic range Miniature design, plastic, XCMH Pre-cabled

Type of he	ad	Plunger (fixing	by the body)					
					Terrescanda			
Type of oper	ator	Metal end plunge	r	Metal end plunger with silicone boot (1)	Steel roller plunger approach	for lateral cam	Steel roller plunger for traverse cam approach	Thermoplastic roller lever plunger, horizontal actuation in 1 direction
Cable outpu	t	Lateral	Axial	Lateral	Lateral	Axial	Lateral	Lateral
Referen	ces	1			1	1	1	
	Ces 2-pole NC + NO snap action 2-pole NC + NC snap action	XCMH2110L1 → XCMH2110L2 → XCMH2110L3 → XCMH2910L1 → XCMH2910L2 → XCMH2910L2 → XCMH2910L3 →	XCMH2110LA1 ↔	XCMH211AL05 → XCMH211AL1 →	XCMH2102L1 XCMH2102L2 XCMH2102L3 XCMH2102L5 XCMH2102L6 XCMH2102L7 XCMH2102L8 XCMH2102L5 XCMH2102L5 XCMH2102L5 XCMH2102L5 YCMH2102L5 YCMH2102L5 YCMH2102L5 YCMH2102L5 YCMH2102L5 YCMH2002L1 YCMH2002L5 YCMH2002L5	XCMH2102LA1 →	XCMH2103L1 → XCMH2103L2 → XCMH2103L3 → XCMH2103L5 → XCMH2103L8 → XCMH2103L8 → XCMH2103L8	XCMH2121L1 XCMH2121L2 → XCMH2121L5 → XCMH2121L5 →
Weight (kg)	0.5 m cable (L05) 1 m cable (L1) 2 m cable (L2) 3 m cable (L3) 5 m cable (L5) 6 m cable (L6) 7 m cable (L7) 8 m cable (L8) 9 m cable (L9)	0,8 - 0.064 0.092 0.120 - - - - -	0,8 	0,8 0.055 0.069 - - - - - - - - - - - - - - - - - - -		1,4 - 0.070 - - - - - - - - -		
Contact ope		closed		(A) = cam displace	ement	→ NC contact wit		
0		🖂 open		(P) = positive oper	ning point	-		
	mentary char		ot snown ur	ider general		ICS (see page	69)	
Switch actua Type of actu		On end			By 30° cam			
	tuation speed	0.5 m/s		1.5 m/s	0.5 m/s			0.5 m/s
Mechanical Minimum force or torque Cabling		5 million operating 8.5 N.m 42.5 N.m PvR cable, 4 x 0.3		0.1 N.m 0.5 N.m	7 N.m 35 N.m			2.5 N.m 12.5 N.m

(1) Silicone boot for outdoor use.

▲ Available 2nd semester 2023.

References, characteristics

Limit switches

XC Basic range Miniature design, plastic, XCMH Pre-cabled

Type of hea	ad	Plunger (fixing by the body)	Plunger (fixing by	/ the head)	Rotary (fixing by	/ the body)	
Type of oper		Thermoplastic roller lever plunger, horizontal actuation in 1 direction Head oriented at 240°	M12 with metal end plunger	M12 with steel roller plunger for lateral cam approach	Thermoplastic rolle	rlever	Thermoplastic roller lever Head oriented at 180°
Cable output	t	Lateral	Lateral	Lateral	Lateral	Axial	Lateral
Referen	ces						
	2-pole NC + NO snap action	XCMH2121L1R0 ⊖	XCMH21F0L1 ⊖	XCMH21F2L1 ⊖	XCMH2115L1 ⊖	XCMH2115LA1 ▲ ⊖	XCMH2115L1L0 ⊖
BK-WH			XCMH21F0L2 ⊖	XCMH21F2L2 ⊖	XCMH2115L2 → XCMH2115L3 → XCMH2115L8 →	-	XCMH2115L2L0 → XCMH2115L3L0 →
		65(A) 14 (P) BN BU BN BU BU BN BU BN BU BU BN BU BN BU BN BU BN BU BN BU BN BU BN BU BN BU BN BU BU BN BU BU BU BU BU BU BU BU BU BU BU BU BU B	1,8 4,2(P) BN-BU BK-BK-WH BN-BU D BK-BK-WH D D D D D D D D D D D D D D D D D D D	3,1(A) 7(P) BN-BU BN-BU BN-BU BN-BU BN-BU D 1,4	25* 70*(P) BN-BU BN-BU BN-BU BN-BU BN-BU D 12* 90*	25* 70*(P) BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BX-BX-WH BX-BX-WH BN-BU BX-BX-WH BN-BU BX-BX-WH BN-BU BX-BX-WH BX-WH BX-W	25° 70°(P) BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BN-BU BL-BK-WH BL-BK-WH BN-BU BL-BK-WH B
Weight (kg)	1 m cable (L1)	0.077	0.081	0.091	0.106	0.106	0.106
	$\frac{2 \text{ m cable (L2)}}{2 \text{ m cable (L2)}}$	-	0.110	0.120	0.134	-	0.134
	3 m cable (L3) 8 m cable (L8)	-	-	-	0.163 0.304	-	0.163
Contact ope		closed	(A) = cam displacem (P) = positive openin	ent		oositive opening opera	
Comple	mentary cha	racteristics not			cteristics (see	page 69)	
Switch actua		By 30° cam	On end	By 30° cam°			
Type of actua							
	tuation speed	0.5 m/s	0.5 m/s	0.1 m/s	0.1 m/s	1.5 m/s	
Mechanical		5 million operating cy	r		1	1	
Minimum force or torque	For tripping For positive opening	2.5 N.m 12.5 N.m	8.5 N.m 42.5 N.m	7 N.m 35 N.m	0.1 N.m 0.5 N.m	0.1 N.m 0.5 N.m	
Cabling	opening	PvR cable, 4 x 0.34 n	nm²				
-	nd samestar 2022						

Available 2nd semester 2023.



References, characteristics

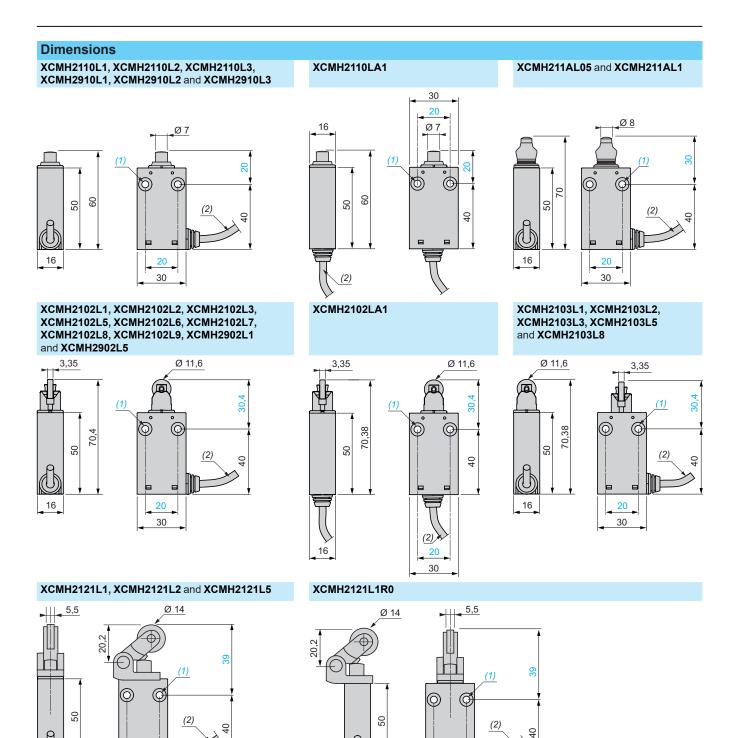
Limit switches

XC Basic range Miniature design, plastic, XCMH Pre-cabled

	Rotary (fixing by	the body)	Multi-directional	
	Variable length thermoplastic roller lever	Round thermoplastic rod lever, Ø 6 mm (1)	Spring lever with thermoplastic end (1)	"Cat's whisker" (1)
	Lateral	Lateral	Lateral	Lateral
2-pole NC + NO snap action	XCMH2145L1 ⊖	XCMH2159L1	XCMH2107L1	XCMH2106L1
	XCMH2145L2	XCMH2159L2	XCMH2107L2	XCMH2106L2
	\ominus		XCMH2107L3	_
		25° BKBK.WM BK BK.WM BK	XCMH2107L3	
1 m cable (L1)	25° 70°(P) BK-BK-WH BK-B	BK-BK-WH BK-BK-WH BK-BL-WH BK-	BU-BY WIN 20° BU-BY WIN 10° 0.079	0.068
2 m cable (L2)	25° 70°(P) BH BU BH BU BH BU BH BU D 12° 0.115 0.144	BX BX WILL BX BX B	0.079 0.107	0.068 0.096
	25° 70°(P) BH-BU BH-BU BH-BU BH-BU BH-BU BH-BU D 12° 0.115	BK-BK-WH BK-BK-WH BK-BL-WH BK-	BU-BY WIN 20° BU-BY WIN 10° 0.079	0.068
2 m cable (L2) 3 m cable (L3) closed open	$\begin{array}{c} \textcircled{\begin{tabular}{c} \hline \hline$	0.070 0.099 	20° 20° 0.079 0.107 0.136 → NC contact with po	0.068 0.096
2 m cable (L2) 3 m cable (L3) closed open	$\begin{array}{c} \textcircled{\begin{tabular}{c} \hline \hline$	0.070 0.099 	20° 20° 0.079 0.107 0.136 → NC contact with po	0.068 0.096 -
2 m cable (L2) 3 m cable (L3)	$\begin{array}{c} \textcircled{\begin{tabular}{c} \hline \hline$	0.070 0.099 	20° 0.079 0.107 0.136 → NC contact with po CS (see page 69)	0.068 0.096 -
2 m cable (L2) 3 m cable (L3) closed open	$\begin{array}{c} \textcircled{\begin{tabular}{c} \hline \hline$	0.070 0.099 	20° 0.079 0.107 0.136 → NC contact with po CS (see page 69)	0.068 0.096 -
2 m cable (L2) 3 m cable (L3) closed open	$\begin{array}{c} \textcircled{\begin{tabular}{lllllllllllllllllllllllllllllllllll$	bit bit with the second	20° 0.079 0.107 0.136 → NC contact with po CS (see page 69)	0.068 0.096 -
2 m cable (L2) 3 m cable (L3) closed open / characteristics not s	$\begin{array}{c} \textcircled{\begin{tabular}{llll} \hline $	by any moving part by any moving part 1 m/s 1 m/s	$\begin{array}{c} 20^{\circ} \\ \hline \\ 0.079 \\ 0.107 \\ 0.136 \\ \hline \\ $	0.068 0.096 - ositive opening operation
2 m cable (L2) 3 m cable (L3) closed open / characteristics not s reed For tripping For positive	$\begin{array}{c} \textcircled{\begin{tabular}{lllllllllllllllllllllllllllllllllll$	bit bit with the second	20° 0.079 0.107 0.136 → NC contact with po CS (see page 69) CS (see page 69)	0.068 0.096 -
2 m cable (L2) 3 m cable (L3) closed open / characteristics not s seed For tripping	$\begin{array}{c} \textcircled{\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Bit Bit Ministry 0.070 0.099 - ant point ral characteristi By any moving part - 1 m/s vcles 0.1 N.m -	20° 0.079 0.107 0.136 → NC contact with pc CS (see page 69) CS (see page 69) 1 m/s (any direction) 0.1 N.m	0.068 0.096 - ositive opening operation
	2-pole NC + NO snap action	Variable length thermoplastic roller lever Lateral 2-pole NC + NO snap action XCMH2145L1 ⊖ XCMH2145L2	thermoplastic roller lever dever, Ø 6 mm (1) Lateral Lateral Z-pole NC + NO snap action XCMH2145L1 XCMH2159L1 ⊖ XCMH2145L2 XCMH2159L2	Variable length thermoplastic roller lever Round thermoplastic roller lever, Ø 6 mm (1) Spring lever with thermoplastic en (1) Lateral Lateral Lateral 2-pole NC + NO snap action XCMH2145L1 TOH2145L2 XCMH2159L1 XCMH2107L1

(1) Value taken with actuation by moving part at 100 mm from the fixing.

XC Basic range Miniature design, plastic, XCMH Pre-cabled



(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

F

20

30

(2) External diameter 4.2 mm.

16

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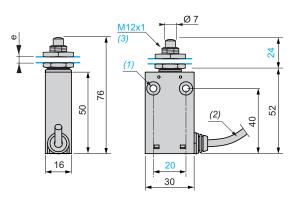
16

20

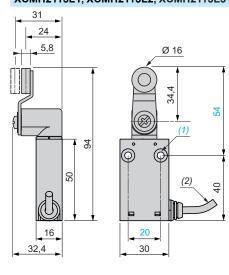
30

XC Basic range Miniature design, plastic, XCMH Pre-cabled

Dimensions (continued) XCMH21F0L1 and XCMH21F0L2



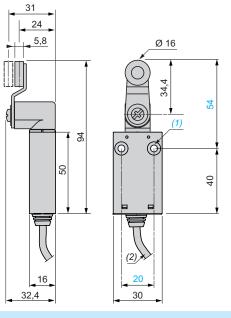
e: 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm. XCMH2115L1, XCMH2115L2, XCMH2115L5 and XCMH2115L8



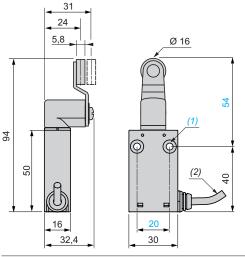
XCMH21F2L1 and XCMH21F2L2 Ø 3,5 Ø 10,6 Ē M12x² Н 30 (3) (1) 88 6 6 50 52 (2) 4 15 16 20 30

e: 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm.

XCMH2115LA1



XCMH2115L1L0, XCMH2115L2L0 and XCMH2115L3L0



(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

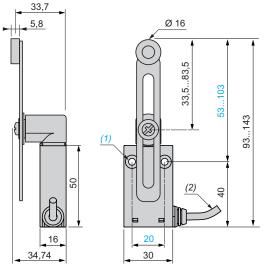
(2) External diameter 4.2 mm.

(3) Fixing nut thickness 3.5 mm.

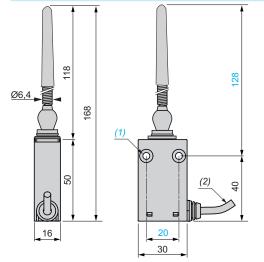


XC Basic range Miniature design, plastic, XCMH Pre-cabled

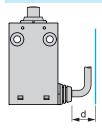
Dimensions (continued) XCMH2145L1 and XCMH2145L2



XCMH2107L1, XCMH2107L2 and XCMH2107L3



Mounting: distance required for connection Limit switches with cable lateral output

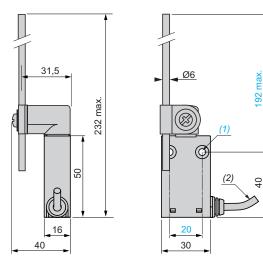


d: min. 15 mm.

(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

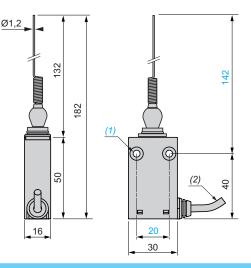
(2) External diameter 4.2 mm.

XCMH2159L1 and XCMH2159L2

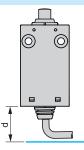


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XCMH2106L1 and XCMH2106L2



Limit switches with cable axial output





XC Basic range Miniature design, plastic, XCMN

■ XCMN pre-cabled

With head for linear movement (plunger). Fixing by the body



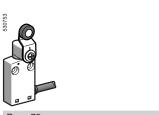


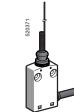
With head for linear movement (plunger). Fixing by the head





With head for rotary movement (lever) or multi-directional





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General characteristics

Limit switches

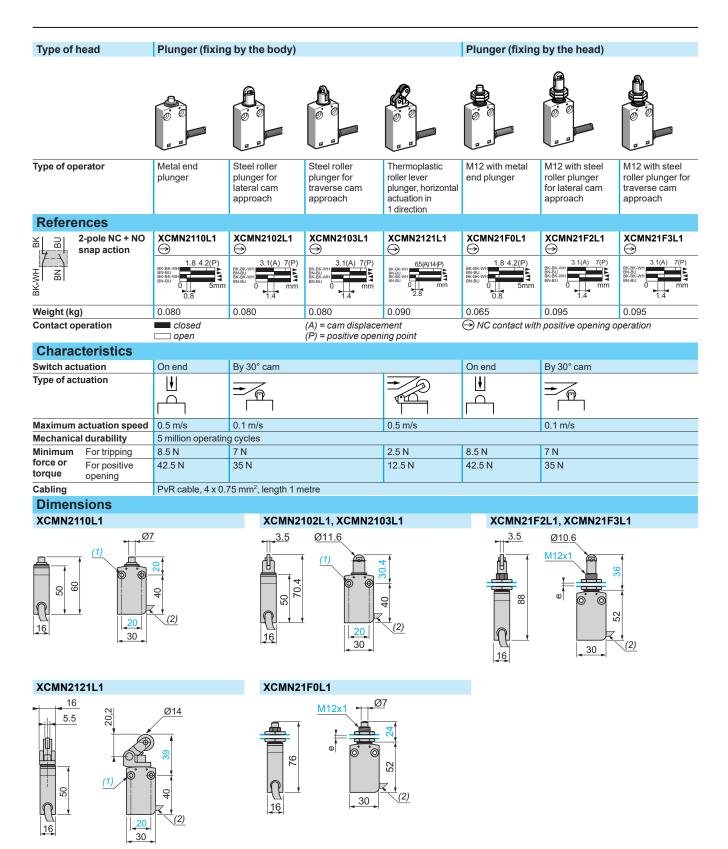
XC Basic range Miniature design, plastic, XCMN

Environment chara	acteristics					
Conformity to standards	Products	C€, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC				
	Machine assemblies	IEC 60204-1, EN 60204-1				
Product certifications		UL, CSA, CCC				
Protective treatment	Standard version	"TC"				
Ambient air temperature	For operation	- 25+ 70°C				
	For storage	- 40+ 70°C				
Vibration resistance	Conforming to IEC 60068-2-6	5 gn (10500 Hz)				
Shock resistance	Conforming to IEC 60068-2-27	25 gn (18 ms)				
Electric shock protection		Class II conforming to IEC 61140 and NF C 20030				
Degree of protection		IP 65 conforming to IEC 60529; IK 04 conforming to IEC 62262				
Materials	Bodies	Plastic				
	Heads	Zamak				
Contact block char	acteristics					
Rated operational character	ristics	∼ AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = 6 A				
		DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1				
Rated insulation voltage		Ui = 400 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14				
Rated impulse withstand vo	ltage	U imp = 4 kV conforming to IEC 60947-1, IEC 60664				
Short-circuit protection		6 A cartridge fuse type gG (gl)				

References, characteristics, dimensions

Limit switches

XC Basic range Miniature design, plastic, XCMN Pre-cabled



(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.

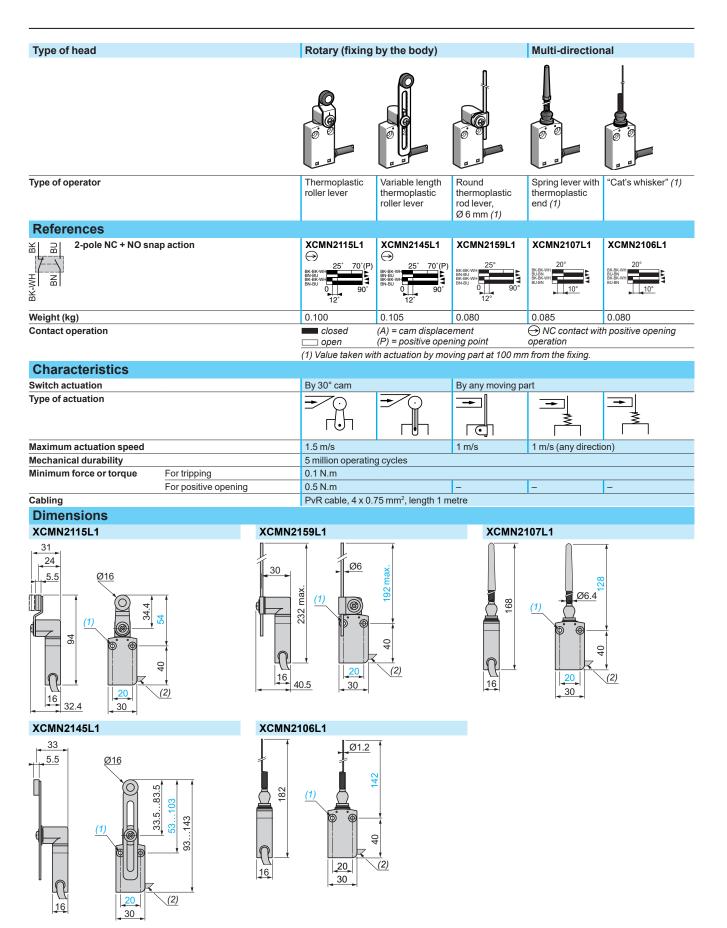
(2) External diameter 7.5 mm.

e: 8 mm max, panel cut-out Ø 12.5 mm. Fixing nut thickness 3.5 mm.

References, characteristics, dimensions (continued)

Limit switches

XC Basic range Miniature design, plastic, XCMN Pre-cabled



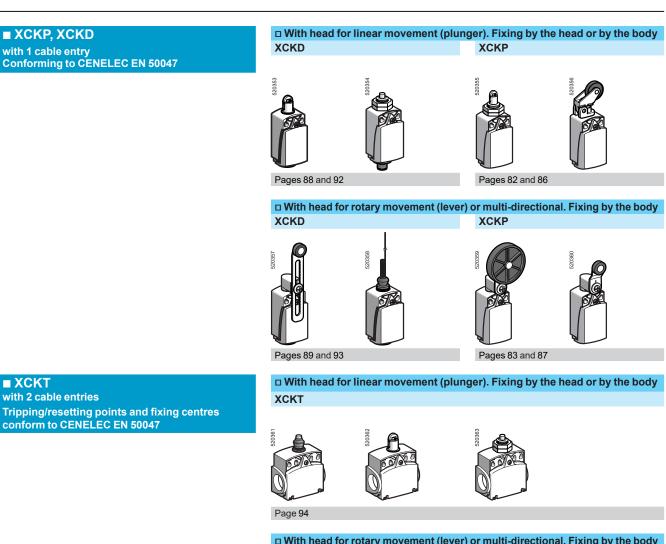
(1) 2 fixing holes Ø 4.2 mm, counterbored Ø 8 mm by 4 mm deep.
 (2) External diameter 7.5 mm.



Presentation, general characteristics

Limit switches

XC Standard range Compact design, plastic, XCKP and XCKT Compact design, metal, XCKD



□ With head for rotary movement (lever) or multi-directional. Fixing by the body хскт



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Environment chara	cteristics				
Conformity to standards	Products	IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14			
	Machine assemblies	IEC 60204-1, EN 60204-1			
Product certifications		UL, CSA, CCC			
Protective treatment	Standard version	"TC"			
Ambient air temperature	For operation	- 25+ 70°C (- 40+ 70 °C with ZCE106, ZCE026 and ZCE016 heads)			
	For storage	- 40+ 70°C			
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10500 Hz) except product with head ZCE24: 20 gn			
Shock resistance	Conforming to IEC 60068-2-27	50 gn (11 ms) except head ZCE08: 15 gn (11 ms) and ZCE24: 30 gn (18 ms)			
Electric shock protection		Class II conforming to IEC 61140 and NF C 20-030 for XCKP and XCKT			
		Class I conforming to IEC 61140 and NF C 20-030 for XCKD			
Degree of protection		IP 66 and IP 67 conforming to IEC 60529; IK 04 conforming to IEC 62262 for XCKP and XCKT, IK 06 conforming to IEC 62262 for XCKD			
Repeat accuracy		0.1 mm on the tripping points, with 1 million operating cycles for head with end plunger			
Cable entry or connector	Depending on model	Either tapped entry for n° 11 or n° 13 cable gland, tapped ISO M16 x 1.5 or ISO M20 x 1.5, tapped 1/2" NPT or PF 1/2 (G1/2) or M12 connector			
Materials		XCKD Zamak bodies and heads, XCKP and XCKT plastic bodies, Zamak heads			

Telemecanique

Sensors

General characteristics (continued)

Limit switches

XC Standard range Compact design, plastic, XCKP and XCKT Compact design, metal, XCKD

Contact block chara	cteristics					
	XE2•P	$a = AC = 15 \cdot A200 / (1a = 240) / (1a = 2.4) \cdot (tha = 10.4)$				
Rated operational characteristics						
	XE3•P					
Rated insulation voltage	XE2•P	Ui = 500 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14				
	XE3•P	Ui = 400 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14				
Rated impulse	XE2•P	U imp = 6 kV conforming to IEC 60947-1, IEC 6	0664			
withstand voltage	XE3•P	U imp = 4 kV conforming to IEC 60947-1, IEC 6	0664			
Positive operation (depending on model)		NC contacts with positive opening operation confo	rming to IEC 60947-5-1 Appendix K, EN 60947-5-1			
Resistance across terminals		$\leq 25 \text{ m}\Omega$ conforming to IEC 60255-7 category 3				
Short-circuit	XE2•P	10 A cartridge fuse type gG (gl)				
protection	XE3•P	6 A cartridge fuse type gG (gl)				
Connection (screw clamp terminals)	XE2SPe151 and XE2SP2141	Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x 1.5 mm ²				
	XE2NP21e1 and XE2NP31e1	Clamping capacity, min: 1 x 0.5 mm ² , max: 2 x 2.5 mm ²				
	XE3NP and XE3SP	Clamping capacity, min: 1 x 0.34 mm ² , max: 1 x				
Minimum actuation speed		XE2SP •151, XE2SP2141 and XE3SP : 0.01 m/				
(for head with end plunger)		XE2NP2101, XE2NP3101 and XE3NP: 6 m/min				
Electrical durability		 Conforming to IEC 60947-5-1 Appendix C Utilisation categories AC-15 and DC-13 Maximum operating rate: 3600 operating cycles/hour Load factor: 0.5 				
		XE2SPe151, XE2SP2141	XE2NP21e1, XE2NP31e1			
	AC supply 50/60 Hz ~ mm inductive circuit	$\frac{5}{0.5}$	$\frac{5}{4}$			
		with reverse polarity. XE3SP••••	XE3NP••••			
	AC supply 50/60 Hz ~ m inductive circuit	Willows of the state of the sta	5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7			
	DC supply	Power broken in W for 5 million operating cycles.	Power broken in W for 5 million operating cycles.			
		Voltage V 24 48 120 mm W 3 2 1	Voltage V 24 48 120			



References, characteristics

Limit switches

XC Standard range Compact design, plastic, XCKP Complete switches with 1 cable entry

Type of head	Plunger (fixing by the body)								
	Form B (1)		Form C (1)	Form E (1)		~			
	_	A	G	Ð	Ø	D			
Type of operator	Metal end plunger	Metal end plunger with elastomer boot	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever plunger, horiz. or vert. actuation in 1 direction			
References of complete switches with 1 ISO M16 x 1.5 cable entry(2)									
$ \begin{array}{c c} & & \\ \hline \\ \hline$	XCKP2110P16 ⊖	XCKP2111P16 ⊖	XCKP2102P16 ⊖	XCKP2121P16 ⊖	XCKP2127P16 ⊖	XCKP2128P16 ⊖			
4 2 2	1.8 4.6(P) 13:44 13:44 13:44 0 5mm 0.9	1.8 4.6(P) 13-14 13-14 0 0.9 5mm	3.1(A) 7.8(P) ²¹⁻²² ¹³⁻¹⁴ 0 mm 1.5	6.5(A) 15.7(P) ²¹⁻²² ¹³⁻¹⁴ ²¹⁻²² ¹³⁻¹⁴ 0 3 mm	6.5(B) 15.7(P) 13-14 13-14 0 mm 3	9.8(A)22.5(P) ²¹⁻²² ¹³⁻¹⁴ 0 4.9 mm			
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} \end{array} \middle \begin{array}{c} \\ \\ \end{array} \right 2 - pole NC + NO break before \\ \\ \\ \end{array} \right $ make, slow break (XE2NP2151)	XCKP2510P16 ⊖	XCKP2511P16 ⊖	XCKP2502P16 ⊖	XCKP2521P16 ⊖	XCKP2527P16 ⊖	XCKP2528P16 ⊖			
#2 8	1.8 3.2(P) ²¹⁻²² ¹³⁻¹⁴ 0 3 5mm	1.8 3.2(P) ²¹⁻²² ¹³⁻¹⁴ 0 3 5mm	3.1(A) 5.6(P) ²¹⁻²² ¹³⁻¹⁴ 0 5.2 mm	6.5(A) 11.3(P)	6.5(B) 11.3(P) ²¹⁻²² ¹³⁻¹⁴ 0 10.5 mm	9.8(A) 17.2(P)			
두 <mark>2-pole NC + NC snap action </mark>	ZCP29 + ZCPEP16 + ZCE10 ↔ 1.8 4.6(P) 1.42 21:42 0 5 mm	ZCP29 + ZCPEP16 + ZCE11 → 1.8 4.6(P)	ZCP29 + ZCPEP16 + ZCE02 ↔ 3.1(A)7.8(P)	ZCP29 + ZCPEP16 + ZCE21 → 6.5(A) 15.7(P)	ZCP29 + ZCPEP16 + ZCE27 → 6.5(B) 15.7(P)	ZCP29 + ZCPEP16 + ZCE28 9.8(A)22.5(P)			
2-pole NC + NC simultaneous, 5 6 7 7 7 8	ZCP27 + ZCPEP16 + ZCPE10 ↔ 1.8 3.2(P) 1.2 3.2(P) 5 5 mm	CCP27 + ZCPEP16 + ZCPE11 ↔ 1.8 3.2(P) 1.2 5mm	0 ↓ 1.5 mm ZCP27 + ZCPEP16 + ZCE02 → 3.1 5.6(P) 1:22 0 mm	0 → 3 mm ZCP27 + ZCPEP16 + ZCE21 → 6.6(A) 11.6(P) 1:22 mm	0 → 3 mm ZCP27 + ZCP27 + ZCE27 ↔ 6.6(B) 11.6(P) 1:22 ↔ 0 mm	4.9 ZCP27 + ZCPEP16 + ZCE28 ↔ 5.3(A)			
$ \begin{array}{c c} & & & \\ $	ZCP39 + ZCPEP16 + ZCE10 ↔	ZCP39 + ZCPEP16 + ZCE11 → 1.8 4.6(P)	ZCP39 + ZCPEP16 + ZCE02 → 3.1(A) 7.8(P)	ZCP39 + ZCPEP16 + ZCE21 \bigoplus 6.5(A) 15.7(P)	ZCP39 + ZCPEP16 + ZCE27 - 6.5(B) 15.7(P)	ZCP39 + ZCPEP16 + ZCE28 ↔ 9.8(A)22.5(P)			
Image: Second state	ZCP37 + ZCPEP16 + ZCE10 → 1.8 3.2(P) 21-22 1-34 0 3 5mm	ZCP37 + ZCPEP16 + ZCE11 → 1.8 3.2(P) 1.8 3.2(P) 0 3 5mm	ZCP37 + ZCPEP16 + ZCE02 → 3.1(A) 5.6(P) 3.1(A) 5.2 mm	ZCP37 + ZCPEP16 + ZCE21 → 6.5(A) 11.3(P) 1324 0 10.5 mm	ZCP37 + ZCPEP16 + ZCE27 → 6.5(B) 11.3(P) 31343 0 10.5 mm	ZCP37 + ZCPEP16 + ZCE28 → 9.8(A) 17.2(P) 1314 0 16.1 mm			
Weight (kg)	0.090	0.090	0.095	0.105	0.100	0.105			
References of complete switc		· · · · ·	-						
For an entry tapped for a n° 11 cable gland, repla Contact operation	ce P16 in the referen	ice by G11. Example	: XCKP2110P16 be (A) (B) = cam displ		I1 or ZCPEP16 beco → NC contact wit				
	open		(P) = positive open		operation	, opennig			
Characteristics									
Switch actuation Type of actuation	On end		By 30° cam						
			≠ _@						
Maximum actuation speed	0.5 m/s			1 m/s					
Mechanical durability (in millions of operating cycles)	15		10	15					
Minimum force or For tripping	15 N 45 N		12 N	6 N 18 N					
torque For positive opening	45 81		36 N						

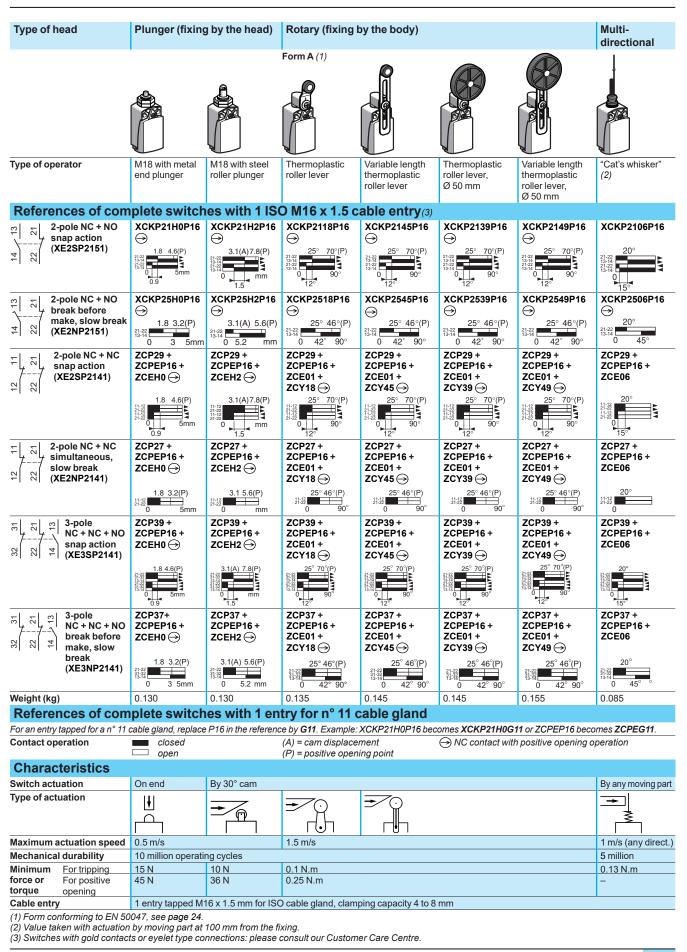
(1) Form conforming to EN 50047, see page 24.
(2) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.



References, characteristics (continued)

Limit switches

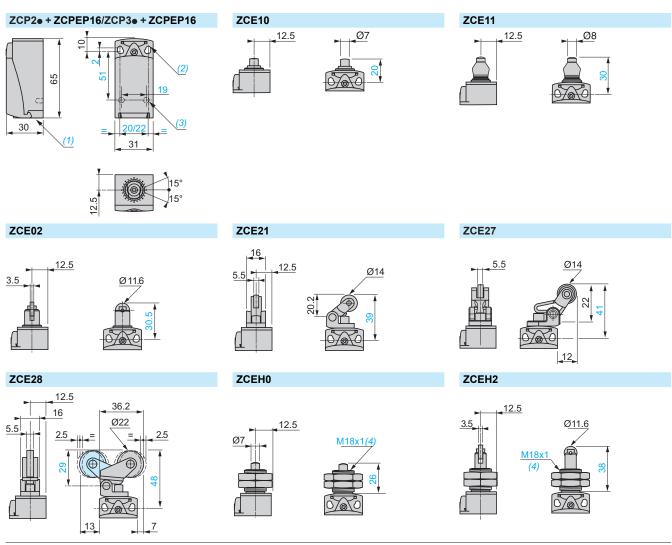
XC Standard range Compact design, plastic, XCKP Complete switches with 1 cable entry





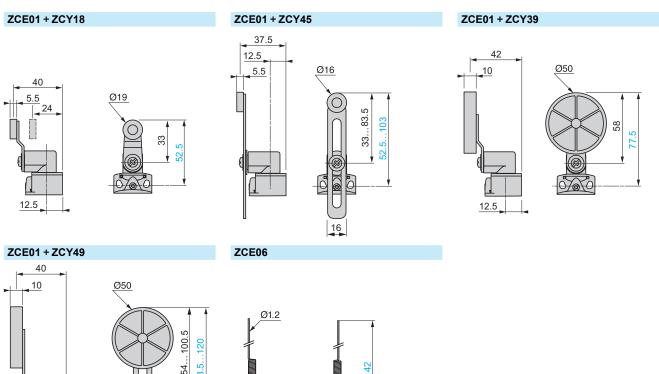


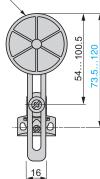
XC Standard range Compact design, plastic, XCKP Complete switches with 1 cable entry



Tapped entry for ISO M16 x 1.5 or Pg 11 cable gland.
 2 elongated holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.
 2 x Ø 3 holes for support studs, depth 4 mm.
 Fixing nut thickness 3.5 mm.

XC Standard range Compact design, plastic, XCKP Complete switches with 1 cable entry





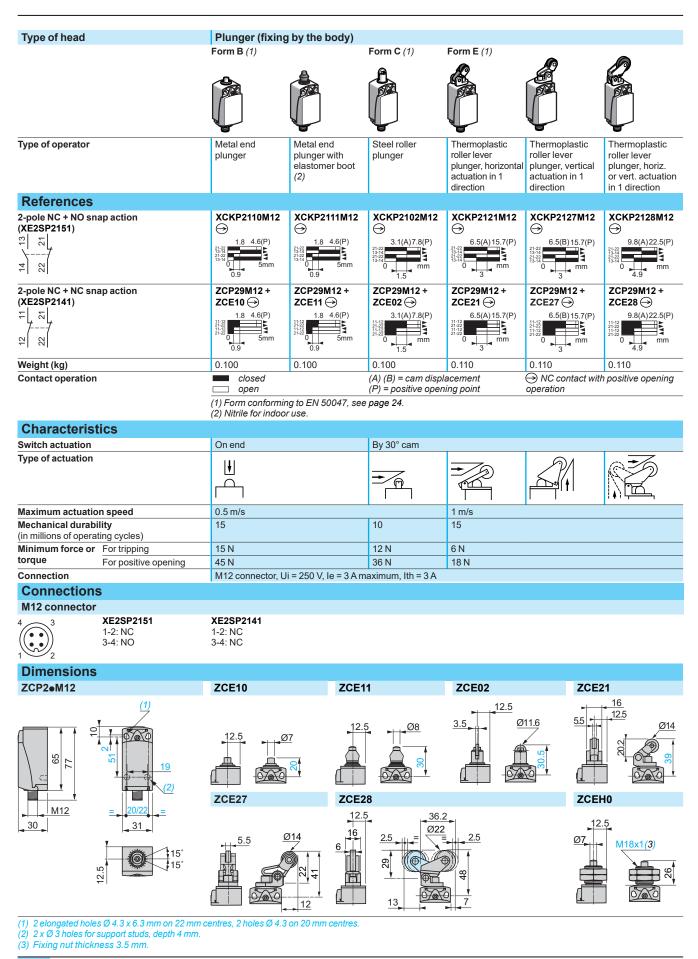


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References, characteristics, connections, dimensions

Limit switches

XC Standard range Compact design, plastic, XCKP M12 connector

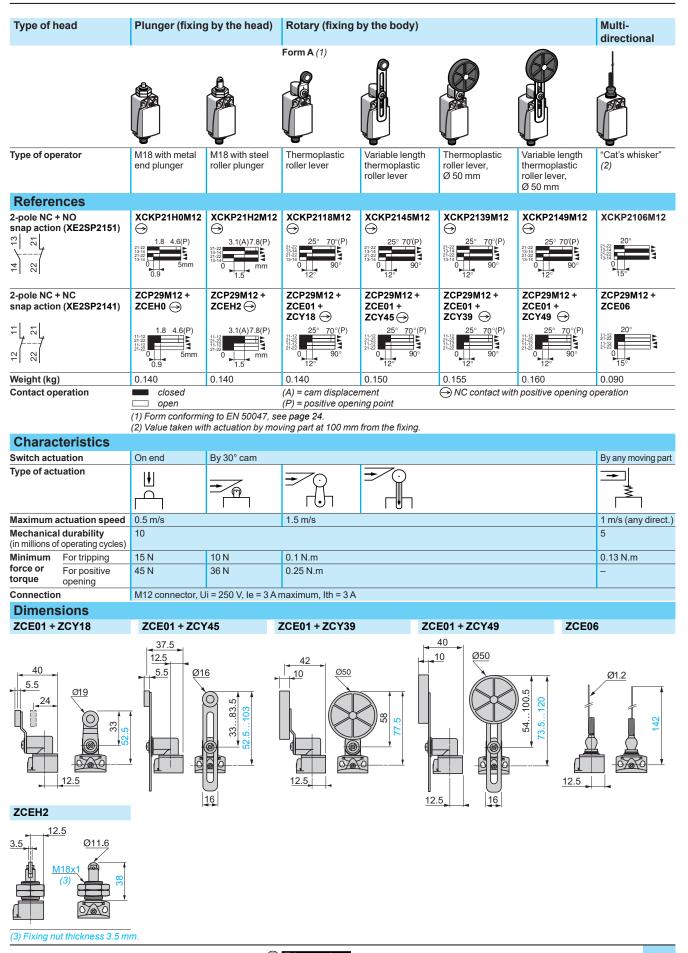


Telemecanique Sensors

References, characteristics, dimensions

Limit switches

XC Standard range Compact design, plastic, XCKP M12 connector



References, characteristics

Limit switches

XC Standard range Compact design, metal, XCKD Complete switches with 1 cable entry

Type of he	ad	Plunger (fixing	ı by the body)				
.,,		Form B (1)	,,,,,	Form C (1)	Form E (1)		
					•	6	6
				<u> </u>		<u>Je</u>	K
		500	573	2 22	E Te		67.00
		U J					
Type of oper	ator	Metal end	Metal end	Steel roller	Thermoplastic roller	Thermoplastic	Thermoplastic roller
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		plunger	plunger with	plunger	lever plunger,	roller lever plunger,	lever plunger, horiz.
			elastomer boot (2)		horizontal actuation in 1 direction	vertical actuation in 1 direction	or vert. actuation in 1 direction
Referen	ces of complete sw	vitches with '	I ISO M16 x 1	.5 cable entr	y (3)		
21	2-pole NC + NO snap action (XE2S P2151)	XCKD2110P16	XCKD2111P16	XCKD2102P16	XCKD2121P16 ⊖	XCKD2127P16	XCKD2128P16
X7	Shap action (XE25 P2151)	1.8 4.6(P)	↔ 1.8 4.6(P)	→ 3.1(A)7.8(P)	6.5(A) 15.7(P)	↔ 6.5(B) 15.7(P)	↔ 9.8(A)22.5(P)
22		21-22 13-14 21-22 13-14	21-22 13-14 21-22 13-14	21-22 13-14 21-22 13-14	21-22 13-14 21-22 13-14	21-22 13-14 21-22 13-14	21-22 13-14 21-22 13-14
		0 5mm 0.9	0 5mm 0.9	0 ∎ mm 1.5	0 ⊾ mm	0 ↓ mm	0 mm 4.9
21	2-pole NC + NO	XCKD2510P16	XCKD2511P16	XCKD2502P16	XCKD2521P16	XCKD2527P16	XCKD2528P16
<u>∖</u> 7	break before make, slow break (XE2N P2151)	→ 1.8 3.2(P)	→ 1.8 3.2(P)	⊖ 3.1(A) 5.6(P)	↔ 6.5(A) 11.3(P)	↔ 6.5(B) 11.3(P)	⊖ 9.8(A) 17.2(P)
22		1.6 3.2(F) ²¹⁻²² ¹³⁻¹⁴ 0 3 5mm	1.6 3.2(F) ²¹⁻²² ¹³⁻¹⁴ 0 3 5mm	21-22 13-14 0 5.2 mm	0 10.5 mm	0.0(D) 11.0(T)	0 16.1 mm
	0						
₽Ĺ 2Ĺ	2-pole NC + NC snap action	ZCD29 + ZCDEP16 +	ZCD29 + ZCDEP16 +	ZCD29 + ZCDEP16 +	ZCD29 + ZCDEP16 +	ZCD29 + ZCDEP16 +	ZCD29 + ZCDEP16 +
33 12	(XE2S P2141)	ZCE10 → 1.8 4.6(P)	ZCE11 → 1.8 4.6(P)	ZCE02 → 3.1(A)7.8(P)	ZCE21 → 6.5(A) 15.7(P)	ZCE27 ⊖ 6.5(B) 15.7(P)	ZCE28 → 9.8(A)22.5(P)
- 0		1.8 4.0(F)	1.0 4.0(F)	11-12 21-22 11-12	0.5(A) 15.7(F)	0.5(B) 15.7(F)	9.5(A)22.5(F)
		21-22 0 5mm 0.9	²¹⁻²² 05mm 0.9	21-22 mm 1.5	21-22 mm	21-22 mm	²¹⁻²² 0 mm 4.9
	2-pole NC + NC	0.9 ZCD27 +	ZCD27 +	ZCD27 +	ZCD27 +	ZCD27 +	ZCD27 +
∓ ⊼ <i>+</i> /	simultaneous,	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +
12 12	slow break (XE2N P2141)	ZCE10 ↔ 1.8 3.2(P)	ZCE11 ↔ 1.8 3.2(P)	ZCE02 → 3.1 5.6(P)	ZCE21 ↔ 6.6(A) 11.6(P)	ZCE27 → 6.6(B) 11.6(P)	ZCE28 → 5.3(A)
1 1	(,	11-12 21-22 0 5mm	11-12 21-22 0 5mm	11-12 21-22 0 5mm	11-12 21-22 0 5mm	11-12 21-22 0 5mm	11-12 0 5mm
	3-pole NC + NC + NO	ZCD39+	ZCD39 +	ZCD39 +	ZCD39 +	ZCD39 +	ZCD39 +
	snap action	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16+	ZCDEP16 +
[4] 53 33	(XE3S P2141)	ZCE10 ↔ 1.8 4.6(P)	ZCE11 → 1.8 4.6(P)	ZCE02 → 3.1(A) 7.8(P)	ZCE21 → 6.5(A) 15.7(P)	ZCE27 ↔ 6.5(B) 15.7(P)	ZCE28 → 9.8(A) 22.5(P)
		21-22 31-32 13-14 13-14		21-22 31-32 13-14 21-22 31-32 13-14	21-22 31-32 13-14 21-22 31-32	21-22 31-32 13-14 21-22 31-32	21-22 31-32 13-14 21-22 31-32 31-32
		13-14 0 0.9	0 5mm 0.9	13-14 0 mm 1.5	31-32 13-14 0 mm 3	13-14 mm	13-14 0 mm 4.9
	3-pole NC + NC + NO	ZCD37 +	ZCD37 +	ZCD37 +	J ZCD37 +	3 ZCD37 +	4.9 ZCD37 +
13 2 3 3 3 3 3 3 5 1 3 3 5 1 3	break before make, slow	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +	ZCDEP16 +
[4] [5] [3]	break (XE3N P2141)	ZCE10 ↔ 1.8 3.2(P)	ZCE11 → 1.8 3.2(P)	ZCE02 → 3.1(A) 5.6(P)	ZCE21 → 6.5(A) 11.3(P)	ZCE27 → 6.5(B) 11.3(P)	ZCE28 → 9.8(A) 17.2(P)
		21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14
		0 3 5mm	0 3 5mm	0 5.2 mm	0 10.5 mm	0 10.5 mm	0 16.1 mm
Weight (kg)	cos of complete ou	0.180	0.180	0.185	0.195	0.190	0.195
	ces of complete sw apped for a n° 11 cable gland		-	-		(D2110G11 or 7CDF	P16 becomes
ZCDEG11.							
Contact ope	ration	closed open		(A) (B) = cam displ (P) = positive oper		→ NC contact with µ operation	positive opening
Character	istics					,	
Switch actua		On end		By 30° cam			
Type of actua	ation						
		I		+	=	< <u>'</u> ?/.	RED
					(T)	 ⊡⊐י	N'her
Maximum co	tuation speed	0.5 m/s		· · ·	1 m/s	l'''	
Maximum ac Mechanical (tuation speed durability	0.5 m/s 15		10	1 m/s 15		
(in millions of	operating cycles)						
Minimum for or torque	For tripping For positive opening	15 N 45 N		12 N 36 N	6 N 18 N		
Cable entry	i or positive opening		6 x 1.5 mm for ISO		ing capacity 4 to 8 mr	n	
(1) Form cont	forming to EN 50047, see pag	ge 24.					

(2) Nitrie for indoor use.
 (3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.



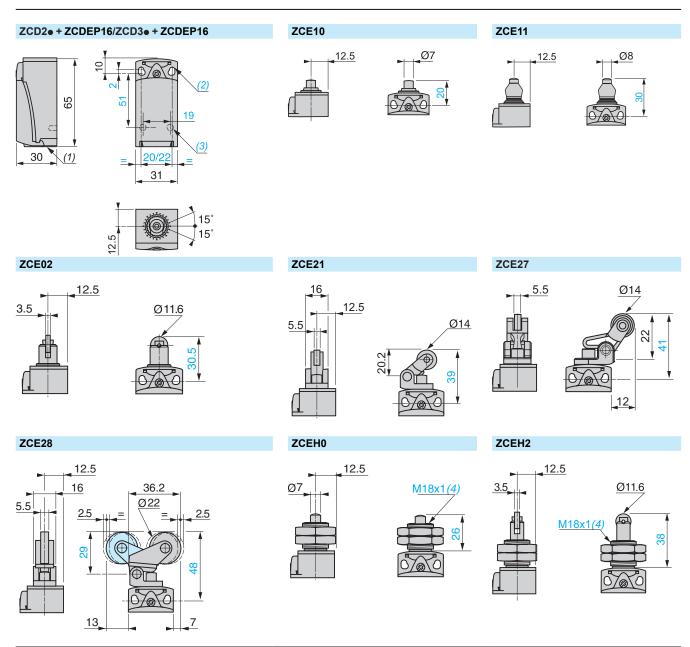
References, characteristics (continued)

Limit switches

XC Standard range Compact design, metal, XCKD Complete switches with 1 cable entry

Type of head	Plunger (fixing	g by the head)	Rotary (fixing by the body) Multi- direction				
	Ĉ	Ĉ	Form A (1)	Í		P	
Type of operator	M18 with metal end plunger	M18 with steel roller plunger	Thermoplastic roller lever	Variable length thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm	Variable length thermoplastic roller lever, Ø 50 mm	"Cat's whisker" (2)
References of compl	lete switche	s with 1 ISO	M16 x 1.5 ca	able entry (3)			
-	XCKD21H0P16 1.8 4.6(P) 21:324 21:324 21:324 0,9 5mm		XCKD2118P16 → 25° 70°(P) 1312 0 0 120° 90°	XCKD2145P16 → 25° 70′(P) 3122 31314 0 120° 90°	XCKD2139P16 → 25° 70°(P) 1312 → 0 → 12° 90°	25° 70°(P) 21374 21374 21374 21374 0 10°	XCKD2106P16
E 2-pole NC + NO break before make, slow break * C (XE2N P2151)	XCKD25H0P16 → 1.8 3.2(P) ²¹⁻²² ¹³⁻¹⁴	XCKD25H2P16 → 3.1(A) 5.6(P) ²¹⁻²² ¹³⁻¹⁴	25° 46°(P) 21-22 13-14 0 42° 90°	XCKD2545P16 ↔	XCKD2539P16 ↔ 25° 46°(P) 1514 0 42° 90°	$\begin{array}{c} \textbf{XCKD2549P16} \\ \textcircled{0} \\ \begin{array}{c} 25^{\circ} & 46^{\circ}(P) \\ 13.14 \\ 0 \\ \end{array} \\ \begin{array}{c} 25^{\circ} & 90^{\circ} \end{array}$	20° 21-22 13-14
$ \begin{array}{c c} \hline & & \\ \hline \\ \hline$	0 3 5mm ZCD29 + ZCDEP16 + ZCEH0 →	0 5.2 mm ZCD29 + ZCDEP16 + ZCEH2 ↔	ZCD29 + ZCDEP16 + ZCE01 + ZCY18 →	0 42° 90° ZCD29 + ZCDEP16 + ZCE01 + ZCY45 →	ZCD29 + ZCDEP16 + ZCE01 + ZCY39 →	0 42° 90° ZCD29 + ZCDEP16 + ZCE01 + ZCY49 ↔	0 45° ZCD29 + ZCDEP16 + ZCE06
	1.8 4.6(P) 11-12 21-22 11-12 11-12 12-22 0 5mm 0.9	3.1(A)7.8(P) 11-12 21-22 21-22 21-22 0 1.5	25° 70°(P) 11-12 21-22 11-12 21-22 0 12° 90°	25° 70°(P) 11-12 11-1	25° 70°(P) 11-12 11-12 11-12 11-12 11-12 11-12 90° 90°	25° 70°(P) 11-12 11-1	20° 21-22 21-22 21-22 21-22 1-22 1-22 1-22
Image: Speed of the system 2-pole NC + NC Image: Speed of the system simultaneous, Image: Speed of the system siow break Image: Speed of the system (XE2N P2141)	ZCD27 + ZCDEP16 + ZCEH0 ↔	ZCD27 + ZCDEP16 + ZCEH2 ↔ 3.1 5.6(P)	ZCD27 + ZCDEP16 + ZCE01 + ZCY18 → 25° 46°(P)	ZCD27 + ZCDEP16 + ZCE01 + ZCY45 → 25° 46°(P)	ZCD27 + ZCDEP16 + ZCE01 + ZCY39 → 25° 46°(P)	ZCD27 + ZCDEP16 + ZCE01 + ZCY49 ↔ 25° 46°(P)	ZCD27 + ZCDEP16 + ZCE06 3.1(A) 7.8(P)
	11-12 21-22 0 5mm	11-12 21-22 0 5mm	11-12 21-22 0 90°	11-12 21-22 0 90°	0 90°	11-12 21-22 0 90°	0 mm 1.5
E 3-pole NC + NC + NO NC + NC + NO S snap action C (XE3S P2141)	ZCD39 + ZCDEP16 + ZCEH0 ⊖	ZCD39 + ZCDEP16 + ZCEH2 ⊖	ZCD39 + ZCDEP16 + ZCE01 + ZCY18 ⊖	ZCD39 + ZCDEP16 + ZCE01 + ZCY45 ↔	ZCD39 + ZCDEP16 + ZCE01 + ZCY39 ⊖	ZCD39+ ZCDEP16+ ZCE01+ ZCY49⊖	ZCD39 + ZCDEP16 + ZCE06
	1.8 4.6(P) 1.22	3.1(A) 7.8(P)	25° 70°(P) 31-33 31-34 15-34 15-34 0 90°	25° 70°(P) 21-22 21-2	25° 70°(P)	25° 70°(P) 21-22 13-33 21-23 21-23 31-34 93-34 93-34 90° 12°	20° 21-22 20° 20° 20° 20° 20° 20° 20° 2
3-pole 3-pole	ZCD37+ ZCDEP16 + ZCEH0 ⊖	ZCD37 + ZCDEP16 + ZCEH2 ⊖	ZCD37 + ZCDEP16 + ZCE01 + ZCY18 →	ZCD37 + ZCDEP16 + ZCE01 + ZCY45 →	ZCD37 + ZCDEP16 + ZCE01 + ZCY39 →	ZCD37 + ZCDEP16 + ZCE01 + ZCY49 ⊖	ZCD37 + ZCDEP16 + ZCE06
break (XE3N P2141) Weight (kg)	1.8 3.2(P) 21-22 31-32 13-14 0 3 5mm 0.220	3.1(A) 5.6(P) 21-22 13-32 13-14 0 5.2 mm 0.220	25° 46°(P) 21-22 31-32 13-14 0 42° 90° 0.225	25° 46°(P) 21:22 31:32 13:14 0 42° 90° 0.235	25° 46°(P) 21-22 13-14 0 42° 90° 0.235	25° 46°(P) 21-22 13-14 0 42° 90° 0.245	20° 21-22 13-32 13-14 0 45° 0.175
References of compl	lete switche	s with 1 entr	y for n° 11 c	able gland			
For an entry tapped for a n° 11 cable Contact operation	e gland, replace P1		y G11 . Example: XC (A) = cam displace		mes XCKD21H0G11		
Characteristics	open		(P) = positive oper				,
Switch actuation	On end	By 30° cam					By any moving par
Type of actuation		by our cam		→ ∕⊙			
Maximum actuation speed	0.5 m/s		1.5 m/s				1 m/s (any direct.)
Mechanical durability	10 million operati	1	0.1 N m				5 million
force or For positive opening	15 N 45 N	10 N 36 N	0.1 N.m 0.25 N.m				0.13 N.m –
torque				mping consolity A to	8 mm		
Cable entry 1 entry tapped M16 x 1.5 mm for ISO cable gland, clamping capacity 4 to 8 mm							
 (1) Form conforming to EN 50047, see page 24. (2) Value taken with actuation by moving part at 100 mm from the fixing. (3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre. 							

XC Standard range Compact design, metal, XCKD Complete switches with 1 cable entry



(1) Tapped entry for ISO M16 x 1.5 or Pg 11 cable gland.

(2) 2 elongated holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.
(3) 2 x Ø 3 holes for support studs, depth 4 mm.
(4) Fixing nut thickness 3.5 mm.

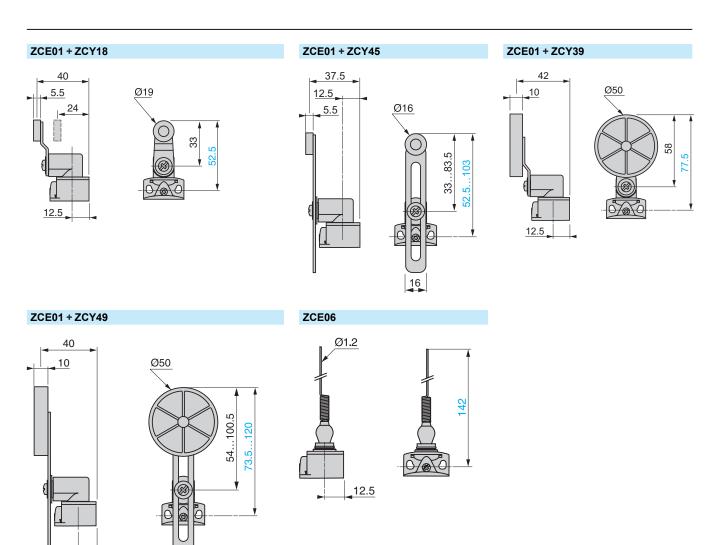
Dimensions (continued)

12.5

16

Limit switches

XC Standard range Compact design, metal, XCKD Complete switches with 1 cable entry

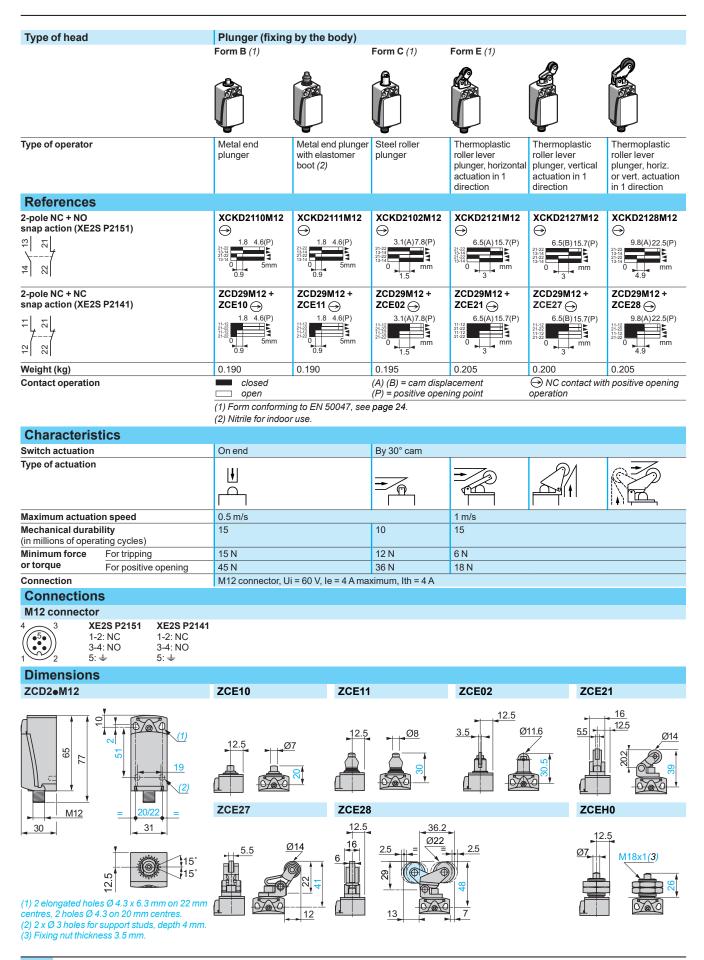




References, characteristics, connections, dimensions

Limit switches

XC Standard range Compact design, metal, XCKD M12 connector

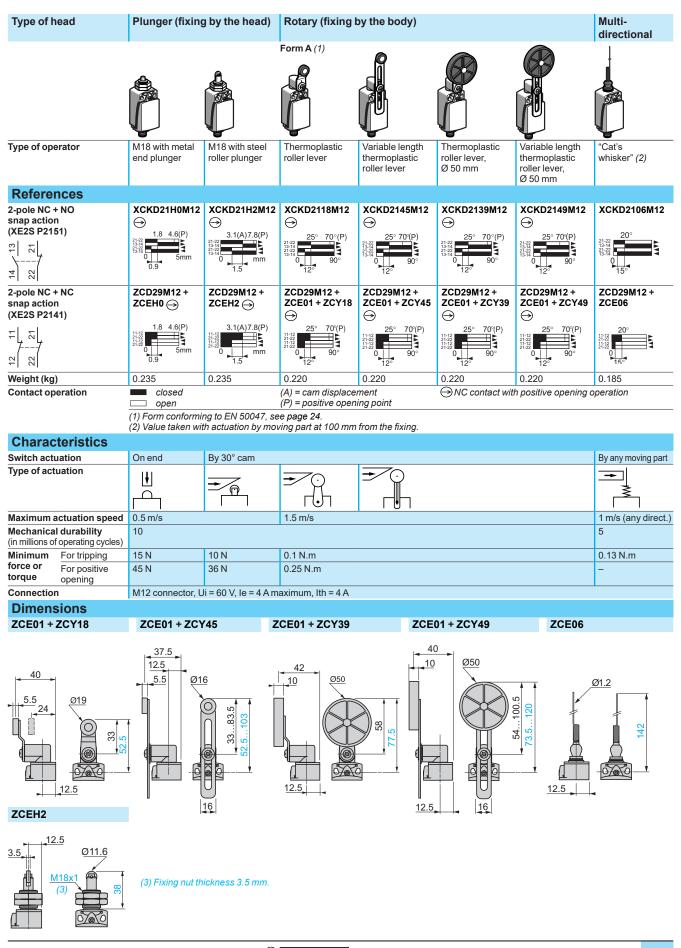


Felemecanique

References, characteristics, dimensions (continued)

Limit switches

XC Standard range Compact design, metal, XCKD M12 connector



References, characteristics, dimensions

Limit switches

XC Standard range Compact design, plastic, XCKT Complete switches with 2 cable entries

Type of head	Plunger (fixing	by the body)			Multi-directional
	Form B (1)		Form C (1)	Form E (1)	
	6000	0000	000		
	لم ک			لم ألا	
Type of operator	Metal end plunger	Metal end plunger	Steel roller plunger	Thermoplastic roller	"Cat's whisker" (3)
3 Prot 1	1 3	with elastomer boot (2)	1 3	lever plunger, horizontal actuation in 1 direction	- (-/
References of complete swite	ches with 2 IS		ble entries (4)	actuation in a direction	1
ະ ຍ ຽ 2-pole NC + NO	XCKT2110P16 ->>	XCKT2111P16 🔿	XCKT2102P16 🔿	XCKT2121P16 →	XCKT2106P16
לל snap action אן אַן (XE2SP3151)	1.8 4.6(P)	1.8 4.6(P)	3.1(A)7.8(P)	6.5(A) 15.7(P)	20° 21-22 13-14
	21-22 13-14 0 5mm 0.9	21-22 13-14 0 5mm	21-22 13-14 0 mm	21-22 13-14 0 mm	
E 2-pole NC + NO	ZCT25P16 +	ZCT25P16 +	71.5 ZCT25P16 +	J ZCT25P16 +	ZCT25P16 +
break before make, slow break (XE2NP3151)	ZCE10 ⊖	ZCE11 ⊖	ZCE02 🔿	ZCE21 →	ZCE06
4 2 Slow break (XE2NP3151)	1.8 3.2(P)	1.8 3.2(P)	3.1(A) 5.6(P)	6.5(A) 11.3(P)	20° 21-22 13-14 0 45°
≂∣ ຼ 2-pole NC + NO make before	0 3 5mm ZCT26P16 +	0 3 5mm ZCT26P16 +	0 5.2 mm ZCT26P16 +	0 10.5 mm ZCT26P16 +	ZCT26P16 +
break, slow break	ZCE10 ⊖	ZCE11 ⊖	ZCE02 🔿	ZCE21 →	ZCE06
_ଅ	3 4.4(P)	3 4.4(P)	5.2 7.6(P)	10.9(A) 16(P)	45° ²¹⁻²² ¹³⁻¹⁴ 0 20°
[2] [2] 2-pole NC + NC	0 1.8 5mm ZCT27P16 +	0 1.8 5mm ZCT27P16 +	0 3.1 mm ZCT27P16+	0 6.6 mm ZCT27P16 +	ZCT27P16 +
simultaneous, slow break	ZCE10 ⊖	ZCE11 ⊖	ZCE02 🔿	ZCE21 ⊖	ZCE06
ୁଅ (XE2NP2141)	1.8 3.2(P) 11-12 21-22 0 5mm	1.8 3.2(P)	3.1 5.6(P)	6.6(A) 11.6(P)	20° 11-12 21-22 0
$\mathfrak{P} \mid \mathfrak{P} \mid \mathfrak{P} $ 2-pole NO + NO simultaneous,	0 5mm	0 5mm ZCT28P16 +	0 mm ZCT28P16+	0 mm ZCT28P16 +	ZCT28P16 +
, , , , , , , , , , , , , , , , , , ,	ZCE10	ZCE11	ZCE02	ZCE21	ZCE06
24 47	1.8 13-14 23-24	1.8 13-14 23-24	3.1(A)	6.6(A)	20° 13-14 23-24
Weight (kg)	0 5mm 0.100	0 5mm 0.100	0 mm 0.105	0 mm 0.115	0.095
References of complete swite					
For entries tapped for n° 11 cable gland, repla				~	
Contact operation	closed	(A) = cam displaceme (P) = positive opening		→ NC contact with positi	ve opening operation
Characteristics					
			D 00%		
Switch actuation Type of actuation	On end		By 30° cam		By any moving part
	On end		By 30° cam	+	By any moving part
	I ↓		By 30° cam		By any moving part
Type of actuation Maximum actuation speed	↓ ↓ 0.5 m/s			1 m/s	1 m/s (any direction)
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles)	↓ 0.5 m/s 15			15	1 m/s (any direction) 5
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping	0.5 m/s 15 15 N 45 N		10 12 N 36 N		1 m/s (any direction)
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping For positive opening or torque For positive opening	0.5 m/s 15 15 N 45 N 2 entries tapped M	16 x 1.5 for ISO cable 4 to 8 mm (1 entry fitte	10 12 N 36 N gland	15 6 N	1 m/s (any direction) 5
Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2	0.5 m/s 15 15 15 N 45 N 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoor	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug)	15 6 N 18 N	1 m/s (any direction) 5 0.3 N.m –
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping	0.5 m/s 15 15 15 N 45 N 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoor	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug)	15 6 N 18 N	1 m/s (any direction) 5 0.3 N.m -
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force or torque For tripping For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at	0.5 m/s 15 15 15 N 45 N 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoor	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug)	15 6 N 18 N	1 m/s (any direction) 5 0.3 N.m –
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoc 100 mm from the fixing	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug) contacts or eyelet type of ZCE11	15 6 N 18 N	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 + 16
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force or torque For tripping For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 100 mm from the fixing ZCE10	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug) contacts or eyelet type of ZCE11	15 6 N 18 N connections: please consult ZCE2 08 5 5	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 100 mm from the fixing ZCE10	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug) contacts or eyelet type of ZCE11	15 6 N 18 N connections: please consult ZCE2 Ø8	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 Ø14
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16 (2) (1) Joint Conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 100 mm from the fixing ZCE10	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland d with blanking plug) contacts or eyelet type of ZCE11	15 6 N 18 N connections: please consult ZCE2 08 5 5	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force or torque For positive opening Or torque Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16	0.5 m/s 15 15 15 15 2 entries tapped M Clamping capacity 24. (2) Nitrile for indoc 100 mm from the fixing ZCE10	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 J ZCE06	15 6 N 18 N connections: please consult ZCE2 08 5 5	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16 (2) (1) (1) (2) (1) (2) (1) (2) (1) (3) (2) (3) (2) (4) (4) (4) (4) (4) (4) (4) (4	0.5 m/s 15 15 15 15 2 entries tapped M Clamping capacity 24. (2) Nitrile for indoc 100 mm from the fixing ZCE10	4 to 8 mm (1 entry fitte or use.	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 12.5 0 0 0 0 0 0 0 0 0 0 0 0 0	15 6 N 18 N 2CE2 08 5.5 0 0 0 0 0 0 0 0 0 0 0 0 0	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16 Dimensions ZCT2•P16 Dimensions Cable attribute actuation by moving part at Dimensions Cable attribute actuation by moving part at Dimensions Cable attribute actuation by moving part at Dimensions CT2•P16 Dimensions Cable attribute actuation by moving part at Dimensions CT2•P16 Dimensions CT2•P16 Dimensions CT2•P16 Dimensions CT2•P16 Dimensions CT2•P16 Dimensions CT2•P16 CD2 CD2 CD2 CD2 CD2 CD2 CD2 CD2 CD2 CD2 CD2 CD2	0.5 m/s 15 15 15 15 2 entries tapped M Clamping capacity 24. (2) Nitrile for indoc 100 mm from the fixing ZCE10 ZCE02	4 to 8 mm (1 entry fitte or use. 9. (4) Switches with gold 07 07 011.6 011.6	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 J ZCE06	15 6 N 18 N connections: please consult ZCE2 08 5.5 5.5	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16 Umbed States of the states o	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 24. (2) Nitrile for indoc 100 mm from the fixing ZCE10 ZCE02 12.5	4 to 8 mm (1 entry fitte or use. g. (4) Switches with gold	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 ZCE06 12.5	15 6 N 18 N connections: please consult ZCE2 08 5.5 5.5 0 0 0 0 0 0 0 0 0 0 0 0 0	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2=P16 U U U U U U U U U U U U U U U U U U U	0.5 m/s 15 15 N 45 N 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoc 100 mm from the fixing ZCE10 ZCE02 3.5 12.5 2.5 ZCE02	4 to 8 mm (1 entry fitte or use. g. (4) Switches with gold	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 ZCE06 12.5	15 6 N 18 N 2CE2 08 5.5 0 0 0 0 0 0 0 0 0 0 0 0 0	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014
Type of actuation Maximum actuation speed Mechanical durability (in millions of operating cycles) Minimum force For tripping or torque For positive opening Cable entry (3) (1) Form conforming to EN 50047, see page 2 (3) Value taken with actuation by moving part at Dimensions ZCT2•P16 U U U U U U U U U U U U U U U U U U U	0.5 m/s 15 15 15 15 2 entries tapped M Clamping capacity 4. (2) Nitrile for indoc 100 mm from the fixing ZCE10 ZCE02 3.5 12.5 2 CE02	4 to 8 mm (1 entry fitte or use. g. (4) Switches with gold	10 12 N 36 N gland ed with blanking plug) contacts or eyelet type of ZCE11 ZCE06 12.5	15 6 N 18 N connections: please consult ZCE2 08 5.5 5.5 0 0 0 0 0 0 0 0 0 0 0 0 0	1 m/s (any direction) 5 0.3 N.m - our Customer Care Centre 21 16 12.5 014

References, characteristics, dimensions (continued)

Limit switches

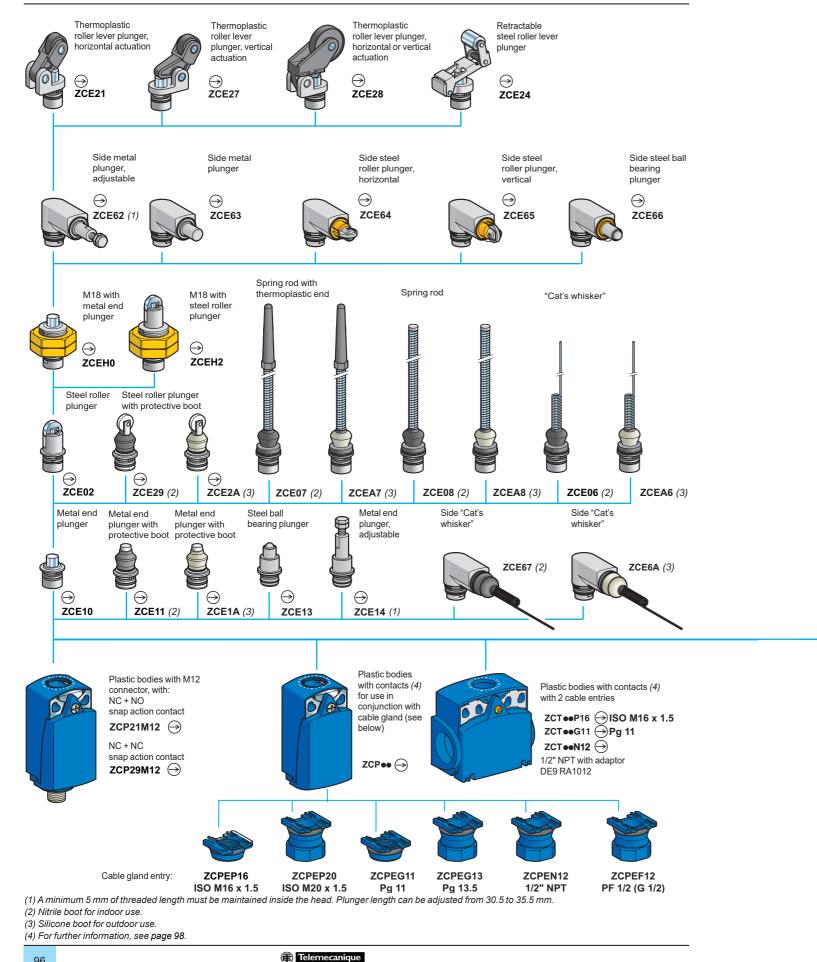
XC Standard range Compact design, plastic, XCKT Complete switches with 2 cable entries

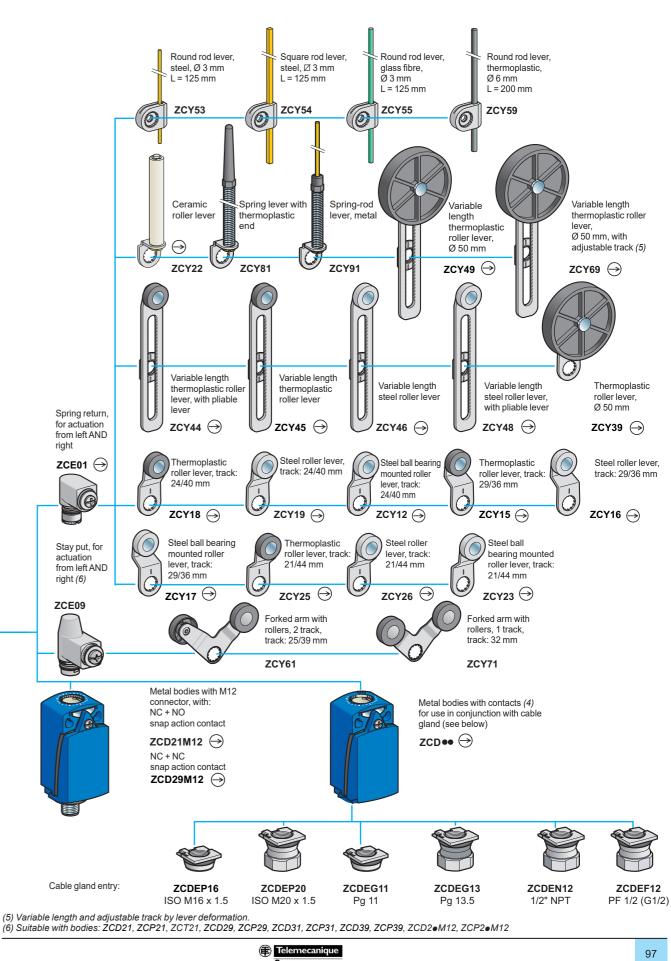
Turne of board	Diversity (C. 1	h	Determ (first 1 - 1		
Type of head	Plunger (fixing	by the head)	Rotary (fixing by the Form A (1)	ne body)	
Type of operator	M18 with metal end plunger	M18 with steel roller plunger	Thermoplastic roller lever	Variable length thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm
References of complete swite	ches with 2 IS	0 M16 x 1.5 cabl	e entries (2)		1
ଝୁ ଅୁ 2-pole NC + NO snap action ଟୁ ଅୁ (XE2SP3151)	XCKT21H0P16 	XCKT21H2P16 3.1(A)7.8(P) 3.1340 3.1(A)7.8(P) 1.25 0 1.5	XCKT2118P16 → 25° 70°(P) 12° 90°	XCKT2145P16 25° 70°(P) 4242 13-14 12° 90°	XCKT2139P16 → 25° 70°(P) 1312 1314 90° 90°
m 2-pole NC + NO break before break before t make, slow break (XE2NP3151)	ZCT25P16 + ZCEH0 → 1.8 3.2(P) 1.33 5mm ZCT26P16 +	ZCT25P16 + ZCEH2 - 3.1(A) 5.6(P) 	ZCT25P16 + ZCE01 + ZCY18 \bigoplus $25^{\circ} 46^{\circ}(P)$ $0 42^{\circ} 90^{\circ}$ ZCT26P16 +	ZCT25P16 + ZCE01 + ZCY45 \bigoplus $25^{\circ} 46^{\circ}(P)$ $1340 - 42^{\circ} 90^{\circ}$	ZCT25P16 + ZCE01 + ZCY39 \bigoplus $25^{\circ} 46^{\circ}(P)$ $1340 - 42^{\circ} 90^{\circ}$ ZCT26P16 +
□ □ 2-pole NO + NC make before □ ↓ break, slow break □ ↓ (XE2NP3161) □ □ 2-pole NC + NC simultaneous,	ZC126P16 + ZCEH0 → 3 4.4(P) ²¹²² 0 1.8 5mm ZCT27P16 +	ZCEH2 5.2 7.6(P) 1342 0 3.1 mm ZCT27P16 +	ZCT26P16 + ZCE01 + ZCY18 → 43° 66°(P) 7547 → 0 25° 90° ZCT27P16 +	ZCT26P16 + ZCE01 + ZCY45 43° 66°(P) 1544 0 25° 90° ZCT27P16 +	ZCT26P16 + ZCE01 + ZCY39 \bigoplus $43^{\circ} 66^{\circ}(P)$ $1544 \\ 0 25^{\circ} 90^{\circ}$ ZCT27P16 +
2 − − − − − − − − − − − − − − − − − − −	ZCEH0 → 1.8 3.2(P) 2 ¹⁻²² → 0 5mm	ZCEH2 → 3.1 5.6(P) 1 ¹⁻¹² 0 mm	$\begin{array}{c} \textbf{ZCE01 + ZCY18} \bigoplus \\ 25^{\circ} & 46^{\circ}(P) \\ 11 & 122 & 10 \\ 0 & 90^{\circ} \end{array}$	$\begin{array}{c} \textbf{ZCE01 + ZCY45} \bigoplus \\ 25^{\circ} & 46^{\circ}(P) \\ 11 & 122 \\ 0 & 90^{\circ} \end{array}$	$\begin{array}{c} \textbf{ZCE01 + ZCY39} \bigoplus \\ 25^{\circ} & 46^{\circ}(P) \\ 1122 & 122 & 122 \\ 0 & 90^{\circ} \end{array}$
 m m m 2-pole NO + NO simultaneous, slow break (XE2NP3131) t m m m m m m m m m 	ZCT28P16 + ZCEH0 1.8 13-14 23-24 0 5mm	ZCT28P16 + ZCEH2 3.1(A) 13-14 23-24 0 mm	ZCT28P16 + ZCE01 + ZCY18 25° 23:24 0 90°	ZCT28P16 + ZCE01 + ZCY45 25° 13°24	ZCT28P16 + ZCE01 + ZCY39 25° 23:24
Weight (kg)	0.145	0.145	0.145	0.155	0.160
References of complete swite			-		
For entries tapped for n° 11 cable gland, repla Contact operation	closed	(A) = cam displacement	t	$\bigcirc NC \text{ contact with pos}$	itive opening operation
Characteristics	open	(P) = positive opening p	John		
Switch actuation	On end	By 30° cam			
Type of actuation					
Maximum actuation speed	0.5 m/s		1.5 m/s		
Mechanical durability	10 million operatin	<u> </u>	0.4.11		
Minimum force or torque For tripping For positive opening For positive opening	15 N 45 N	10 N 36 N	0.1 N.m 0.25 N.m		
Cable entry (3)	2 entries tapped M	16 x 1.5 for ISO cable gla 4 to 8 mm (1 entry fitted	and		
(1) Form conforming to EN 50047, see page 2 (2) Switches with gold contacts or eyelet type	24.		0. 0,		
Dimensions					
ZCEH0	ZCE01 + ZCY18	ZCE01 +	+ ZCY39	ZCE01 + ZCY4	15
2.5 M18x1(4) COCCO ZCEH2 3.5 M18x1(4) COCCO COLL COCCO COCCO COLL COCCO COLL COCCO COLL COCCO COLL COCCO COCCO COLL COCCO COLL COCCO COLL COCCO COLL COCCO COLL COCCO COLL COCCO COLL COCCO COLL COL					016 0 16 0 16 0 16 0 0 0 0 0 0 0 0 0 0 0 0 0
(4) Fixing nut thickness 3.5 mm.					

Presentation

Limit switches

XC Standard range Compact design, XCKD, XCKP and XCKT Variable composition





96

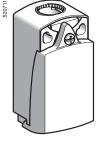
References

Limit switches

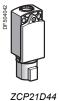
XC Standard range Compact design, metal, XCKD or plastic, XCKP Adaptable sub-assemblies: bodies with contacts

520710	

ZCD••



ZCP••



ZCP21D44



Bodies with co	ntacts, XCK	D and XC	KP (1)		
Type of contact	Positive operation (2)	Scheme	Body material	Reference	Weight kg
2-pole					
NC + NO snap action	\ominus	⁷ 3	Metal	ZCD21	0.140
(XE2SP2151)		52	Plastic	ZCP21	0.070
NC + NC snap action	\ominus	₽Ĺ 2Ĺ	Metal	ZCD29	0.140
XE2SP2141)		55 35	Plastic	ZCP29	0.070
NC + NO break before make,	\ominus	21 23	Metal	ZCD25	0.140
slow break (XE2NP2151)		5 4	Plastic	ZCP25	0.070
NO + NC make before break.	Θ	21	Metal	ZCD26	0.140
slow break (XE2NP2161)		22 [Plastic	ZCP26	0.070
NC + NC simultaneous,	Θ	ل 13 ل	Metal	ZCD27	0.140
slow break (XE2NP2141)		22	Plastic	ZCP27	0.070
NO + NO simultaneous,	_	23	Metal	ZCD28	0.140
slow break (XE2NP2131)		4 4 77	Plastic	ZCP28	0.070
3-pole					
NC + NO + NO snap action	\ominus	13 33 24	Metal	ZCD31	0.140
(XE3SP2151)		4 37 55	Plastic	ZCP31	0.070
NC + NC + NO snap action	\ominus	31 21 31	Metal	ZCD39	0.140
(XE3SP2141)		32	Plastic	ZCP39	0.070
NC + NC + NO break before make,	\ominus	13 13 13 13 13	Metal	ZCD37	0.140
slow break (XE3NP2141)		4 33	Plastic	ZCP37	0.070
NC + NO + NO break before make,	\ominus	13 33 54 33 53	Metal	ZCD35	0.140
slow break (XE3NP2151)		22 <u>4</u> 2 2	Plastic	ZCP35	0.070

Components for connection using DEUTSCH connector Bodies with contacts for DEUTSCH connector

Type of contact	Positive operation (2)	Scheme	Cable entry	Reference	Weight kg
2-pole					
NC + NO snap action (XE2SP2151)	\ominus	22 13	Connector	ZCP21D44	0.065
DEUTSCH male con DT04-4P	inector			ZCPED44	0.015

(1) Bodies with gold contacts or eyelet type connections: please consult your Regional Sales Office.
 (2) ⊕: bodies with contacts assuring positive opening operation.

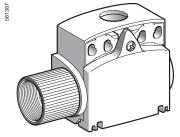
References (continued)

Limit switches

XC Standard range Compact design, plastic, XCKT Adaptable sub-assemblies: bodies with contacts



ZCT



ZCT••N12

Bodies with conta	cts, XCK	۲ plastic,	2 cable er	ntries	
Type of contact	Positive operation (1)	Scheme)	Cable entries	Reference	Weight kg
2-pole					
NC + NO snap action (XE2SP3151)	\ominus	- 3 3	ISO M16 x 1.5	ZCT21P16	0.085
		22	Pg 11	ZCT21G11	0.085
NC + NO break before make,	Θ	√	ISO M16 x 1.5	ZCT25P16	0.085
slow break (XE2NP3151)		[] []	Pg 11	ZCT25G11	0.085
NC + NC simultaneous,	\ominus	₽Ļ ⊼Ļ	ISO M16 x 1.5	ZCT27P16	0.085
slow break (XE2NP3141)		52 3	Pg 11	ZCT27G11	0.085
NO + NO simultaneous,	-	23 13	ISO M16 x 1.5	ZCT28P16	0.085
slow break (XE2NP3131)		4 2	Pg 11	ZCT28G11	0.085
NO + NC make before break,	\ominus	۲ ۲ ۲	ISO M16 x 1.5	ZCT26P16	0.085
slow break (XE2NP3161)		2 2	Pg 11	ZCT26G11	0.085

Bodies with contacts, XCKT plastic, 2 cable entries with 1/2" NPT adaptor

NPT adaptor				
Type of contact	Positive operation	Scheme (1)	Reference	Weight kg
2-pole				
NC + NO snap action (XE2SP3151)	\ominus	22 21	ZCT21N12	0.130
NC + NO break before make, slow break (XE2NP3151)	\ominus	22 21	ZCT25N12	0.130
NC + NC simultaneous, slow break (XE2NP3141)	\ominus	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ZCT27N12	0.130
NO + NO simultaneous, slow break (XE2NP3131)	_	24 13 24 23	ZCT28N12	0.130
NO + NC make before break, slow break (XE2NP3161)	\ominus	22 22 21	ZCT26N12	0.130

(1) \bigcirc : bodies with contact assuring positive opening operation.



References (continued)

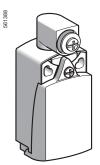
Limit switches

XC Standard range Compact design, metal, XCKD or plastic, XCKP and XCKT Adaptable sub-assemblies: bodies with contacts

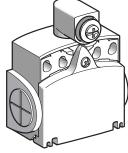




DE9RA1012



XCK•2•01••



XCKT2•01••

561389

Accessories					
Description		Suitable le use with h		Unit reference	Weight kg
Rotary head, without lever, spring return, for actuation from left AND right or left OR right (1)		ZCY12, ZC ZCY16, ZC ZCY18, ZC ZCY22, ZC ZCY25, ZC ZCY39, ZC ZCY54, ZC ZCY81	¥17, ¥19, ¥23, ¥26, ¥53,	ZCE05	0.045
Tap-off terminal for XCK	г	Sold in lots	of 10	XALZ09	0.010
Spacer for angular positi heads with adjustable lev values other than - 90°, 0	/ers, for	-		XCMZ07	0.002
Adaptor for 1/2" NPT con (male Pg 11 / female 1/2" N		Sold in lots	of 10	DE9RA1012	0.050
Bodies with cont	acts, XC	KP plasti	i <mark>c, with</mark> i	rotary head	(without
operating lever)					
Trues of compact	Oakama	Desitives	Ochla	Defenses	Mainh4

Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
NC + NO snap action (XE2SP2151)	7 3	\ominus	ISO M16 x 1.5	XCKP2101P16	0.115
	22	$\overline{\Theta}$	Pg 11	XCKP2101G11	0.115
		\ominus	M12 connector	XCKP2101M12	0.125
NC + NO break before make,	2 13 13	\ominus	ISO M16 x 1.5	XCKP2501P16	0.115
slow break (XE2NP2151)	52 [4	$\overline{\ominus}$	Pg 11	XCKP2501G11	0.115

Bodies with contacts, XCKD metal, with rotary head (without

operating lever)					
Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
NC + NO snap action (XE2SP2151)	×	\ominus	ISO M16 x 1.5	XCKD2101P16	0.185
	32 [7	\ominus	Pg 11	XCKD2101G11	0.185
		\ominus	M12 connector	XCKD2101M12	0.195
NC + NO break before make,	£ 5	\ominus	ISO M16 x 1.5	XCKD2501P16	0.185
slow break (XE2NP2151)	5 2	\ominus	Pg 11	XCKD2501G11	0.185

Bodies with contacts, XCKT plastic, with rotary head (without

operating lever)					
Type of contact	Scheme	Positive operation (2)	Cable entry	Reference	Weight kg
2-pole					
NC + NO snap action (XE2SP3151)	7 33	\ominus	ISO M16 x 1.5	XCKT2101P16	0.130
	13 [4	$\overline{\ominus}$	Pg 11	XCKT2101G11	0.130
NC + NO break before make,	2 ₁₃	Θ	ISO M16 x 1.5	XCKT2501P16	0.130
slow break (XE2NP3151)	33 [4	\ominus	Pg 11	XCKT2501G11	0.130

(1) For programming see page 18.
 (2) ⊖: bodies with contact assuring positive opening operation.

References



XE2••21••



XE3••21••

Limit switches

XC Standard range Compact design, metal, XCKD or plastic, XCKP and XCKT Adaptable sub-assemblies: contact blocks

Contact blocks w	vith screw c	lamp terminals f	for XCKD and X	СКР
Type of contact	Positive operation (1)	Scheme	Reference for standard contacts	Weight kg
2-pole				
NC + NO snap action	\ominus	22	XE2SP2151	0.020
NC + NC simultaneous, snap action	\ominus	22 1 22	XE2SP2141	0.020
NC + NO break before make, slow break	\ominus	22 13 22 21	XE2NP2151	0.020
NO + NC make before break, slow break	\ominus	22 13	XE2NP2161	0.020
NC + NC simultaneous, slow break	\ominus	22	XE2NP2141	0.020
NO + NO simultaneous, slow break	-	14 - 13 24 - 23 24 - 23	XE2NP2131	0.020
3-pole NC + NO + NO snap action	⊖	22 4 	XE3SP2151	0.035
NC + NC + NO snap action	\ominus	32 22 14 14 13	XE3SP2141	0.035
NC + NC + NO break before make, slow break	\ominus	32 22 14 14 13 13	XE3NP2141	0.035
NC + NO + NO break before make, slow break	\ominus	22 24 14 13 13 13	XE3NP2151	0.035
Contact blocks v	with screw	clamp terminal	s for XCKT	
Type of contact	Positive operation (1)	Scheme	Reference for standard contacts	Weight kg
2-pole NC + NO	\sim	m −1	XE2SP3151	0.015
snap action	\ominus		XE23F3131	0.015
NC + NO break before make, slow break	\ominus	22	XE2NP3151	0.015
NO + NC make before break, slow break	\ominus	22 13	XE2NP3161	0.015
NC + NC simultaneous, slow break	\ominus	22	XE2NP3141	0.015
NO + NO simultaneous, slow break	-	$ \frac{14}{24} $ $ \frac{14}{23} $ $ \frac{24}{23} $	XE2NP3131	0.015

(1) \bigcirc : contact blocks assuring positive opening operation.





XC Standard range Compact design, plastic, with reset, XCPR and XCTR

■ XCPR With head for linear movement (plunger). Fixing by the body XCPR with 1 cable entry 0425 Page 104 With head for rotary movement (lever) or multi-directional. Fixing by the body XCPR 20428 Page 104 ■ XCTR With head for linear movement (plunger). Fixing by the body XCTR with 2 cable entries Tripping/resetting points and fixing centres conform to CENELEC 50047 20437 20436 Page 106 With head for rotary movement (lever) or multi-directional. Fixing by the body XCTR Page 106

Characteristics

Limit switches

XC Standard range Compact design, plastic, with reset, XCPR and XCTR

Environment charact	teristics			
Conformity to standards	Products	C€, EN/IEC 60947-5-1, UL 508, CSA C22-2 n° 14, EAC		
	Machine assemblies	EN/IEC 60204-1		
Product certifications		UL, CSA		
Protective treatment	Standard version	"TC"		
Ambient air temperature	For operation	- 25+ 70 °C (- 40+ 70 °C with ZCE106, ZCE026 and ZCE016 heads)		
	For storage	- 40+ 70 °C		
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10500 Hz)		
Shock resistance	Conforming to IEC 60068-2-27	50 gn (11 ms)		
Electric shock protection		Class II conforming to IEC 61140 and NF C 20-030		
Degree of protection		IP 66 and IP 67 conforming to IEC 60529 IK 04 conforming to IEC 62262		
Repeat accuracy		0.1 mm on the tripping points, with 1 million operating cycles for head with end plunger		
Cable entry	Depending on model	Either: tapped entry for n° 13 cable gland, tapped ISO M20 x 1.5 or tapped 1/2" NPT		
Materials		Plastic bodies, Zamak heads		
Contact block charac	cteristics			
Rated operational characterist	ics			
Rated insulation voltage		Ui = 500 V degree of pollution 3 conforming to IEN/IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14		
Rated impulse withstand volta	ge	U imp = 6 kV conforming to EN/IEC 60947-1, IEC 60664		
Positive operation (depending of	on model)	NC contacts with positive opening operation conforming to EN/IEC 60947-5-1 Appendix K		
Resistance across terminals		\leq 25 m Ω conforming to IEC 60255-7 category 3		
Short-circuit protection		10 A cartridge fuse type gG (gl)		
Connection	XE2SP2151	Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x 1.5 mm ²		
(screw clamp terminals)	XE2NP2151	Clamping capacity, min: 1 x 0.5 mm ² , max: 2 x 2.5 mm ²		
Minimum actuation speed		XE2SP2151: 0.01 m/minute		
(for head with end plunger)		XE2NP2151: 6 m/minute		

References, characteristics

Limit switches

XC Standard range Compact design, plastic, with reset, XCPR Complete switches with 1 cable entry

Type of head	Plunger (fixing	by the body)			Rotary (fixing I	by the body)
Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever	Steel roller lever
References of complete switcl	nes with 1 IS	O M20 x 1.5 c	able entry			
$ \begin{array}{c c} & & & \\ $	XCPR2110P20	XCPR2102P20 3.1(A)7.8(P) 21:22 13:14 0 1.5 mm	ACPR2121P20	3 4 5 5 5 5 6 5 (B) 15.7(P) 5 1 1 1 1 1 1 1 1 1 1	XCPR2118P20	XCPR2119P20
$ \begin{array}{c c} \hline & \hline \\ \hline \\$	XCPR2510P20 	XCPR2502P20 → 3.1(A) 5.6(P) 21:22 15:14 0 5.2 mm	CPR2521P20 → 6.5(A) 11.3(P) 21-22 13-14 0 10.5 mm	CPR2527P20 → 6.5(B) 11.3(P) 21:22 0 10.5 mm	$\begin{array}{c} \textbf{XCPR2518P20} \\ \textcircled{0} \\ 25^{\circ} & 46^{\circ} & (P) \\ 21-22 \\ 13-14 \\ 0 \\ 42^{\circ} & 90^{\circ} \end{array}$	$\begin{array}{c} \textbf{XCPR2519P20} \\ \textcircled{0} \\ 25^{\circ} & 46^{\circ} & (P) \\ 21-22 \\ 13-14 \\ 0 \\ 42^{\circ} & 90^{\circ} \end{array}$
2-pole NC + NC snap action (XE2SP2141)	XCPR2910P20 1.8 4.6(P) 1.2 4.6(P) 1.2 5mm	XCPR2902P20 3.1(A) 7.8(P) 1.122 1.122 1.122 1.122 1.12 1.12 mm	XCPR2921P20 6.5(A) 15.7(P) 1122 0 4122 0 4122 0 4122 0 4 5 6.5(A) 15.7(P) 4122 0 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6	XCPR2927P20 6.5(B) 15.7(P) 11-22 0 3 0 3 mm	XCPR2918P20 25° 70°(P) 1122 1122 1122 1122 0 12° 90°	-
Weight (kg)	0.115	0.115	0.125	0.120	0.155	-

References of complete switches with 1 Pg 13.5 cable entry

For complete switches with 1 Pg 13.5 cable entry replace P20 by G13. Example: XCPR2110P20 becomes XCPR2110G13.

References of complete switches with 1 entry for 1/2" NPT conduit

For complete switches with 1 entry for 1/2" NPT conduit replace P20 by **N12**. Example: XCPR2110P20 becomes **XCPR2110N12**.

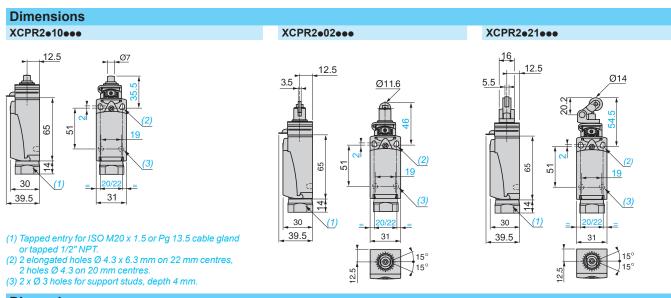
Contact operation						⊖ NC contact with positive opening operation
Characterist	tics					
Switch actuation		On end	By 30° cam			
Type of actuation		l ⊎ r←				
Maximum actuatio	n speed	0.5 m/s		1 m/s		1.5 m/s
Minimum force or	For tripping	15 N	12 N	6 N		0.1 N.m
torque	For positive opening	45 N	36 N	18 N		0.25 N.m
Cable entry		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm 1 entry tapped Pg 13.5 for cable gland, clamping capacity 9 to 12 mm 1 entry tapped for 1/2" NPT (USAS B2-1) conduit			mm	
Other versions	versions Complete switches with cable entries other than those listed above.					

please consult our Customer Care Centre.

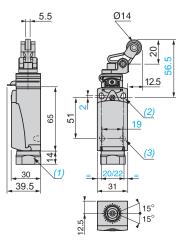
Dimensions

Limit switches

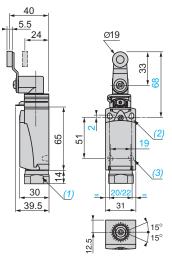
XC Standard range Compact design, plastic, with reset, XCPR Complete switches with 1 cable entry



Dimensions XCPR2e27eee



XCPR2e18eee, XCPR2e19eee



(1) Tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or tapped 1/2" NPT.
(2) 2 elongated holes Ø 4.3 x 6.3 mm on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.
(3) 2 x Ø 3 holes for support studs, depth 4 mm.

XC Standard range Compact design, plastic, with reset, XCTR Complete switches with 2 cable entries

Type of head	Plunger (fixing	by the body)		Rotary (fixing by the body)		
ype of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizonta actuation in 1 direction	Thermoplastic rolle al lever plunger		
References of complete switch	es with 2 ISO M16 x 1.5 c	able entries				
ମ୍ମ୍ରୁ 2-pole NC + NO snap action the constant (XE2SP3151)	XCTR2110P16 ↔ 1.8 4.6(P) 1.3 4.6(P) 1.3 4.6(P) 0.9 5mm	XCTR2102P16 → 3.1(A)7.8(P) 3.1(A)7.8(P) 3.1(A)7.8(P) 1.5 mm	XCTR2121P16 → 6.5(A) 15.7(P) 13.14 0 3 mm	XCTR2118P16 ↔ 25° 70° (P) 212 213 213 212 212 212 212 212		
은 지 2-pole NC + NO break before make, slow break 전 (XE2NP3151)	XCTR2510P16 1.8 3.2(P) 21-22 13-14 0 3 5m	3.1(A) 5.6(P) ²¹⁻²² ¹³⁻¹⁴ 0 5.2 mm	XCTR2521P16 → 6.5(A) 11.3(P) 21-22 13-14 0 10.5 mm	XCTR2518P16 → 25° 46°(P) 13-14 0 42° 90°		
Weight (kg)	0.120	0.125	0.135	0.165		
References of complete switches with 2 Pg 11 cable entries For complete switches with 2 Pg 11 cable entries replace P16 by G11. Example: XCTR2110P16 becomes XCTR2110G11. References of complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit For complete switches with 2 entries tapped for 1/2" NPT conduit						
Example: XCTR2110P16 becomes XCTR2110N	12.					
Contact operation	closed open	(A) = cam displaceme (P) = positive opening				

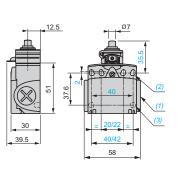
			$ \bigcirc \text{ NC contact with positive opening operation} $			
Characteristics						
Switch actuation		On end	By 30° cam			
Type of actuation						
Maximum actuation speed		0.5 m/s	0.5 m/s		1.5 m/s	
Minimum force or torque	For tripping	15 N	12 N	6 N	0.1 N.m	
	For positive opening	45 N	36 N	18 N	0.25 N.m	
Cable entry (1 entry fitted with blanking plug)		2 entries tapped	2 entries tapped M16 x 1.5 mm for ISO cable gland, clamping capacity 4 to 8 mm 2 entries tapped Pg 11 for cable gland, clamping capacity 7 to 10 mm 2 entries tapped for 1/2" NPT (USAS B2-1) conduit using Pg 11 - 1/2" NPT adaptor DE9RA1012			

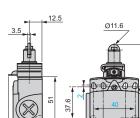


XC Standard range Compact design, plastic, with reset, XCTR Complete switches with 2 cable entries

Dimensions







12.5

20/22

40/42

58

15

115

XCTR2e02eee

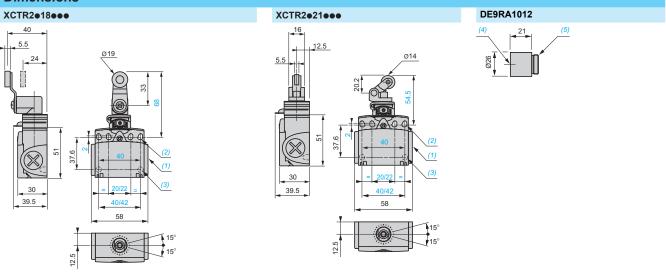
30

39.5

(1) Tapped entry for ISO M16 x 1.5 or Pg 11 cable gland or tapped 1/2" NPT.
 (2) 4 elongated holes Ø 4.3 x 6.3 mm on 22/42 mm centres, 4 holes Ø 4.3 on 20/40 mm centres.

(4) Tapped entry for support studs, depth 4 mm.
(4) Tapped entry for 1/2" NPT conduit.
(5) Pg 11 threaded sleeve.

Dimensions



(1) Tapped entry for ISO M16 x 1.5 or Pg 11 cable gland or 1/2" NPT conduit.
 (2) 4 elongated holes Ø 4.3 x 6.3 mm on 22/42 mm centres, 4 holes Ø 4.3 on 20/40 mm centres.
 (3) 2 x Ø 3 holes for support studs, depth 4 mm.



XC Basic range Compact design, plastic, XCKN and XCNT

XCKN With head for linear movement (plunger) with 1 cable entry Conforming to CENELEC EN 50047 530748 Page 110 With head for rotary movement (lever) or multi-directional 530749 530746 Page 111 ■ XCNT With head for linear movement (plunger) with 2 cable entries Conforming to CENELEC EN 50047 300352)F600177 Page 112 D With head for rotary movement (lever) or multi-directional DF600181

Page 113

General characteristics

Limit switches

XC Basic range Compact design, plastic, XCKN and XCNT

Environment chara	actoristics	
Conformity to standards	Products	IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC
comoning to standards	Troducio	120 00047-0-1, EN 00047-0-1, 02 000, 00 N 022-211 14, ENO
	Machine assemblies	IEC 60204-1, EN 60204-1
Product certifications		UL, CSA, CCC
Protective treatment	Version	Standard: "TC"
Ambient air temperature	For operation	- 25+ 70°C
	For storage	- 40+ 70°C
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10500 Hz) except XCKNee08: 10 gn, XCKNee39 and XCKNee49: 15 gn
Shock resistance	Conforming to IEC 60068-2-27	50 gn (11 ms) except XCKN2e49ee and XCKNee39: 15 gn, XCKN2e08ee: 20 gn and XCKN2e45ee: 35 gn
Electric shock protection		Class II conforming to IEC 61140 and NF C 20030
Degree of protection		IP 65 conforming to IEC 60529; IK 04 conforming to IEC 62262
Cable entry		Depending on model: tapped entry for ISO M20 x 1.5 or Pg 11 cable gland, ISO M 16 x 1.5 cable gland or PF 1/2 (G 1/2).
Materials	Bodies	Plastic
	Heads	Plastic
Contact block char	acteristics	I.
Rated operational character	ristics	∼ AC-15; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 A
		DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1
Rated insulation voltage	2-pole contact	Ui = 500 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14
Rated impulse withstand voltage	2-pole contact	U imp = 6 kV conforming to IEC 60947-1, IEC 60664
Positive operation		NC contacts with positive opening operation conforming to IEC 60947-5-1 Appendix K, EN 60947-5-1
Short-circuit protection		10 A cartridge fuse type gG (gl)
Connection	Screw clamp terminals	Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x 1.5 mm ²





XC Basic range Compact design, plastic, XCKN Complete switches with 1 cable entry

Type of head	Plunger (fixing	by the body)			
Type of operator	Metal end plunger	Plastic roller plunger for lateral cam approach	Plastic roller plunger for traverse cam approach	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertica actuation in 1 direction
Sold and packed in lots of	20	20	20	20	20
References of complete switches with 1	ISO M20 x 1.5 c	able entry			
P 2-pole NC + NO Snap action *	2.5.4.5(P) 2.5.4.5(P) 2.5.4.5(P) 2.5.4.5(P) 1.4 5.5mm	XCKN2102P20 3.3(A) 7.8(P) 15.42 15.42 15.42 0 2.4 mm	XCKN2103P20 4.3(A) 7.8(P) 4.3(A)	XCKN2121P20 9(A)15.9(P) 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 13.42 14.42 15.9(P)	XCKN2127P20 9(B)15.9(P) 21-22 13-14 15-14 0 5.2 mm
P 2-pole NC + NO break before make, slow break 2	XCKN2510P20 → 2.8 4.2(P) 13-14 0 4 5.5mm	XCKN2502P20 → 4.8(A) 7.3(P) ²¹⁻²² 15-14 0 7 mm	XCKN2503P20 → 4.8(A) 7.3(P) 1:42 0 7 mm	XCKN2521P20 → 10(A) 14.9(P) 21-22 13-14 0 14.1 mm	XCKN2527P2 → 10(B) 14.9(P 21-22 13-14 0 14.1 mm
2-pole NC + NC simultaneous, 	XCKN2710P20 2.8 4.2(P) 21-22 0 5mm	4.8 7.3 (P)	XCKN2703P20 4.8 7.3 (P) 11-12 0 mm	XCKN2721P20 → 10 14.9(P) ¹¹⁻¹² 0 mm	XCKN2727P20 → 10 14.9(P) 11:22 0 mm
= אר + NC 	XCKN2910P20 2.2 5.1(P) 11-22 2.12 0 0 0.8 5.9 mm	XCKN2902P20 3.9 (A) 8.9(P) 1.12 2122 1.12 1.12 1.12 0 1.14 mm	XCKN2903P20 3.9 (A) 8.9(P) 11-12 21-22 21-22 0 1.4 mm	XCKN2921P20 8 (A) 18 (P) 11-12 21-22 21-22 0 2.9 mm	XCKN2927P20 8 (B) 18 (P) 11-12 21-22 21-22 0 21-22 0 2.9 mm
Veight (kg)	0.065	0.065	0.065	0.070	0.070
Contact operation	closed copen	(A) (B) = cam displa (P) = positive open		⊖ NC contact with operation	positive openin
Characteristics					
Switch actuation	On end	By 30° cam			
Type of actuation					
laximum actuation speed	0.5 m/s	0.3 m/s		1 m/s	
lechanical durability (in millions of operating cycles)	10				
Inimum force or torque For tripping	15 N	12 N		6 N	
For positive opening Cable entry	30 N 1 entry tapped M2	20 N 0 x 1.5 mm for ISO	cable gland, clamp	10 N ing capacity 7 to 13	mm
References of complete switches with 1 For complete switches with 1 Pg 11 cable entry replace P20 by Example: XCKN2110P20 becomes XCKN2110G11.	-	ry			

Other cable entries

For complete switches with ISO M16 x 1.5 or PF 1/2 (G 1/2) cable entry, please consult our Customer Care Centre.

Other contacts

For complete switches with 2-pole contacts:

- NO + NC make before break, slow break, NO + NO simultaneous, slow break, please consult our Customer Care Centre.

For complete switches with 3-pole contacts: NC + NO + NO snap action, NC + NC + NO snap action, NC + NC + NO break before make, slow break, NC + NO + NO break before make, slow break, please consult our Customer Care Centre.

References, characteristics

Limit switches

XC Basic range Compact design, plastic, XCKN Complete switches with 1 cable entry

Type of head		Rotary (fixing I	oy the body)			Multi-direction	nal
Type of operator		Thermoplastic roller lever	Variable length thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm	Variable length thermoplastic roller lever, Ø 50 mm	Spring rod	"Cat's whisker"
Sold and packed in lot		20	20	20	20	20	20
References of	complete switc	1	1				
E Z 2-pole N 1 2 snap act 1 2 2		XCKN2118P20 25° 50°(P) 13-14 13-14 0 16°	XCKN2145P20 25° 50°(P) 21-22 13-14 1-22 13-14 0 16° 70°	XCKN2139P20 21:22 21:22 21:3:44 0 16° 70°	XCKN2149P20 25° 50°(P) 21-22 13-14 0 16° 70°	XCKN2108P20 25° 21-22 13-14 13-14 15°	21-22 13-14 13-14 1-20 1-21 1-21 1-21 1-20 1-20 1-20 1-20
2-pole N break be slow bre	efore make,	XCKN2518P20 28° 47°(P) 21:22 0 38° 70°	XCKN2545P20 28° 47°(P) 21:22 0 38° 70°	XCKN2539P20 28° 47°(P) 21:22 0 38° 70°	$\begin{array}{c} \textbf{XCKN2549P20} \\ & \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ $	XCKN2508P20 28° 21-22 13-14 0 40°	XCKN2506P20 28° 21-22 13-14 0 40°
2-pole No 35	C + NC simultaneous, ak	XCKN2718P20 → 28° 47°(P) 21:-22 0 90°	$\begin{array}{c} \textbf{XCKN2745P20} \\ & {}^{11-12} \\ & {}^{21-22} \\ & 0 \\ & 90^{\circ} \end{array}$	XCKN2739P20 → 28° 47°(P) 21-22 0 90°		28° 122 0	28° 11:22 0
1 2-pole N snap act 2 2		XCKN2918P20 25° 55° (P) 11:22 21:22 0 12° 70°	XCKN2945P20 25° 55° (P) 11:22 11:22 11:22 0 12° 70°	XCKN2939P20 25° 55° (P) 11-12 21-22 11-22 11-22 11-22 0 12° 70°	XCKN2949P20 25° 55° (P) 11-12 21-22 21-22 11-12 21-22 0 12° 70°	25° 1412 2122 1122 2122 1122 1122 1122 112	25° 11-12 11-12 11-12 11-12 11-12 11-12 11-12 11-12 11-12 11-12 11-12
Weight (kg)		0.085	0.090	0.110	0.115	0.085	0.075
Contact operation		closed		(A) (B) = cam displa (P) = positive openi		→ NC contact wit operation	h positive opening
Characteristic	S						
Switch actuation		By 30° cam	1			By any moving par	t
Type of actuation		÷~0 Г0⊓				→	
Maximum actuation speed 1.5		1.5 m/s				1 m/s (any directio	,
Mechanical durability		10 million operatin	g cycles			5 million operating	cycles
Minimum force or torque	For tripping For positive opening	0.1 N.m 0.15 N.m				0.13 N.m -	
Cable entry			0 x 1.5 mm for ISO	cable gland, clampir	ng capacity 7 to 13 r	nm	
References of	References of complete switches with 1 Pg 11 cable entry						

For complete switches with 1 Pg 11 cable entry replace P20 by G11. Example: XCKN2118P20 becomes XCKN2118G11.

Other cable entries

For complete switches with ISO M16 x 1.5 or PF 1/2 (G 1/2) cable entry, please consult our Customer Care Centre.

Other contacts

For complete switches with 2-pole contacts: NO + NC make before break, slow break,

- NO + NO simultaneous, slow break, please consult our Customer Care Centre.

For complete switches with 3-pole contacts: NC + NO + NO snap action, NC + NC + NO snap action, NC + NC + NO break before make, slow break,

NC + NO + NO break before make, slow break, please consult our Customer Care Centre.





XC Basic range Compact design, plastic, XCNT Complete switches with 2 cable entries

Type of head		Plunger (fixing b	y the body)		
Type of operator		Metal end plunger	Plastic roller plunger for lateral cam approach	Plastic roller plunger for traverse cam approach	Thermoplastic rolle lever plunger, horizontal actuatio in 1 direction
Sold and packed in lots of		10	10	10	10
References of com	plete switches with 2	ISO M16 x 1.5 cal	ole entries		
E 2-pole NC + NO		XCNT2110P16 1.8 4.6(P) 21-22 13-14 21-22 13-14 0 0.9 5mm	XCNT2102P16 → 3.1(A)7.8(P) ²¹⁻²² ¹³⁻¹⁴ ²¹⁻²² ¹³⁻¹⁴	XCNT2103P16 3.1(A)7.8(P) 21-22 13-14 21-22 13-14 0 1.5 mm	XCNT2121P16 \ominus 6.5(A) 15.7(P 21-22 13-14 0 3 mm
meles 2-pole NC + NO 100 5 100 5 100 100 100 100	e, slow break	XCNT2510P16 → 1.8 3.2(P) ²¹⁻²² 13-14 0 3 5mm	XCNT2502P16 → 3.1(A) 5.6(P) ^{21,22} ¹³⁻¹⁴ 0 5.2 mm	$\begin{array}{c} \textbf{XCNT2503P16} \\ & \\ \hline \\ 3.1(A) 5.6(P) \\ & \\ 3.14 \\ 0 5.2 \\ & \\ mm \end{array}$	XCNT2521P16 → 6.5(A) 11.3(P) ²¹⁻²² 13-14 0 10.5 mm
2-pole NC + NC sir 	multaneous,	XCNT2710P16 1.8 3.2(P) 11-12 12-22 0 5mm	XCNT2702P16 → 3.1 5.6(P) ¹¹⁻¹² 0 mm	XCNT2703P16 → 3.1 5.6(P) ¹¹⁻¹² 0 mm	XCNT2721P16 \ominus 6.5 11.3(P $\frac{11\cdot12}{0}$ mm
Weight (kg)		0.085	0.085	0.085	0.090
Contact operation		closed	(A) (B) = cam displacer (P) = positive opening		ntact with positive ope
Characteristics					
Switch actuation		On end	By 30° cam		
Type of actuation		lt r≏n			
Maximum actuation speed		0.5 m/s	0.3 m/s		1 m/s
Mechanical durability (in milli	ions of operating cycles)	10			
Minimum force or torque	For tripping	15 N	12 N		6 N
	For positive opening	30 N	20 N		10 N
Cable entry		2 entries tapped M16	6 x 1.5 mm for ISO cable g	land, clamping capacity	4 to 8 mm
	plete switches with 2 Pg 11 cable entries replace P16	•	es		

Complete switches with 1/2" NPT cable entry

For complete switches with 1/2" NPT cable entry use adaptor DE9 RA1012 (compatible with XCNT •••• G11).



Description	Sold in	Unit	Weight
	lots of	reference	kg
Adaptor for 1/2" NPT conduit (male Pg 11 / female 1/2" NPT)	10	DE9RA1012	0.050

Other contacts

For complete switches with 2-pole contacts: NO + NC make before break, slow break, NO + NO simultaneous, slow break, please consult our Customer Care Centre.

References, characteristics

Limit switches

XC Basic range Compact design, plastic, XCNT Complete switches with 2 cable entries

Type of operator	Thermoplastic roller lever	Variable length					
		Variable length					
and the second s		thermoplastic roller lever	Thermoplastic roller lever, Ø 50 mm	Variable length thermoplastic roller lever, Ø 50 mm	Spring rod	"Cat's whisker"	
Sold and packed in lots of	10	10	10	10	8	8	
References of comple	ete switches with 2 l	SO M16 x 1.5 c	able entries				
8 2-pole NC + NO 5 snap action 4 2	$\begin{array}{c} \mathbf{XCNT2118P16} \\ \bigoplus \\ 25^{\circ} \\ 70^{\circ} \end{array}$	(P) 21-22 21-22 21-24 21-22 21-24 21-22 21-24 21-22 21-24 21-22 21-24 21-24 21-24 21-24 21-24 25° 70° (P)	XCNT2139P16	XCNT2149P16 25° 70° (P) 13-14 21-22 13-14 0 12° 90°	XCNT2108P16 20° 21-22 21-24 21-22 13-14 21-22 13-5°	20° 21-22 21-22 21-22 21-22 13-14 0 15°	
∞ \overline{z} 2-pole NC + NO \overline{z} \overline{z} break before make, \overline{z} \overline{z} slow break	XCNT2518P16 25° 46°(1 2122 13.14 0 42° 90	25° 46°(P)	$\begin{array}{c} \textbf{XCNT2539P16} \\ \hline \begin{array}{c} \hline \\ 25^{\circ} & 46^{\circ}(P) \\ \hline \\ 13-14 \\ 0 & 42^{\circ} & 90^{\circ} \end{array}$	XCNT2549P16 $25^{\circ} 46^{\circ}(P)$ 21-22 13-14 0 $42^{\circ} 90^{\circ}$	XCNT2508P16 20° ²¹⁻²² 13-14 0 45°	XCNT2506P16 20° 21-22 13-14 0 45°	
<pre></pre>	$\begin{array}{c} \text{XCNT2718P16} \\ \bigcirc \\ 25^{\circ} 46^{\circ}(\text{P}) \\ 2^{\frac{11+22}{21+22}} \\ 0 \\ 9 \end{array}$) → 25° 46°(P)	$\begin{array}{c} \textbf{XCNT2739P16} \\ \hline \\ 25^{\circ} \ 46^{\circ}(P) \\ 11-12 \\ 0 \\ 90^{\circ} \end{array}$	XCNT2749P16 $25^{\circ} 46^{\circ}(P)$ 1^{1-12} 0 90°	XCNT2708P16 20° 11-12 21-22 0	XCNT2706P16 20° 21-22 0	
Weight (kg)	0.105	0.120	0.120	0.120	0.100	0.090	
Contact operation	closed		(A) (B) = cam displa (P) = positive openii		NC contact with operation	h positive opening	
Characteristics							
Switch actuation	By 30° cam	By 30° cam			By any moving part		
Type of actuation	<u>⇒~</u> ⊙ г∪						
Maximum actuation speed	1.5 m/s					1 m/s (any direction)	
Mechanical durability		10 million operating cycles				5 million operating cycles	
Minimum force or For trippin torque For positi		0.1 N.m				0.13 N.m	
1 01 20310		0.15 N.m 2 entries tapped M16 x 1.5 mm for ISO cable gland, clamping capacity 4 to 8 r				-	
Cable entry	2 entries tapped	1 W16 X 1.5 mm for IS	O cable gland, clamp	ing capacity 4 to 8 n	IM		

For complete switches with 2 Pg 11 cable entries replace P16 by G11. Example: XCNT2118P16 becomes **XCNT2118G11**.

Complete switches with 1/2" NPT cable entry

For complete switches with 1/2" NPT cable entry use adaptor DE9 RA1012 (compatible with XCNT •••• G11).



Description	Sold in	Unit	Weight
	lots of	reference	kg
Adaptor for 1/2" NPT conduit (male Pg 11 / female 1/2" NPT)	10	DE9RA1012	0.050

DE9RA1012

Other contacts

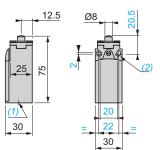
For complete switches with 2-pole contacts: NO + NC make before break, slow break, NO + NO simultaneous, slow break, please consult our Customer Care Centre.



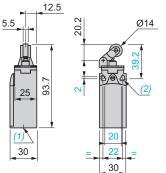
XC Basic range Compact design, plastic, XCKN Complete switches with 1 cable entry

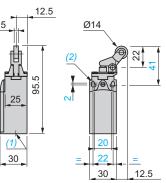
XCKN2•10P20 XCKN2•02P20 XCKN2e03P20 12.5 3.5 Ø11 Ø11 12.5 3.5 12.5 Ø8 85 25 25 85 \sim 75 25 (1) `\ (1) 30 22 30 30 = 30 30 30 XCKN2e21P20 XCKN2e27P20 12.5 12.5 (2) Ø: 2 elongated holes Ø 4.3 x 6.3 on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres. 5.5 Ø14 Ø14 20.2 2 f (2) ŝ ħ7€ **\$**\$ 95. 63. (2 25 25

Dimensions







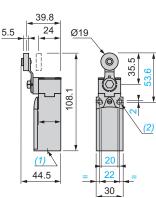


(1) 1 tapped entry for ISOM20 x 1.5 or Pg 11

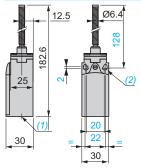
20

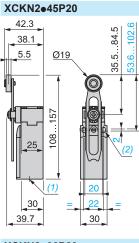
22

XCKN2•18P20

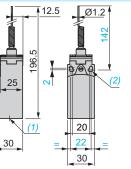


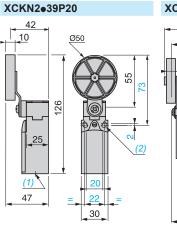
XCKN2•08P20

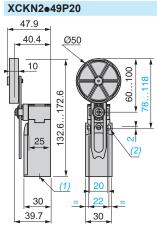




XCKN2•06P20







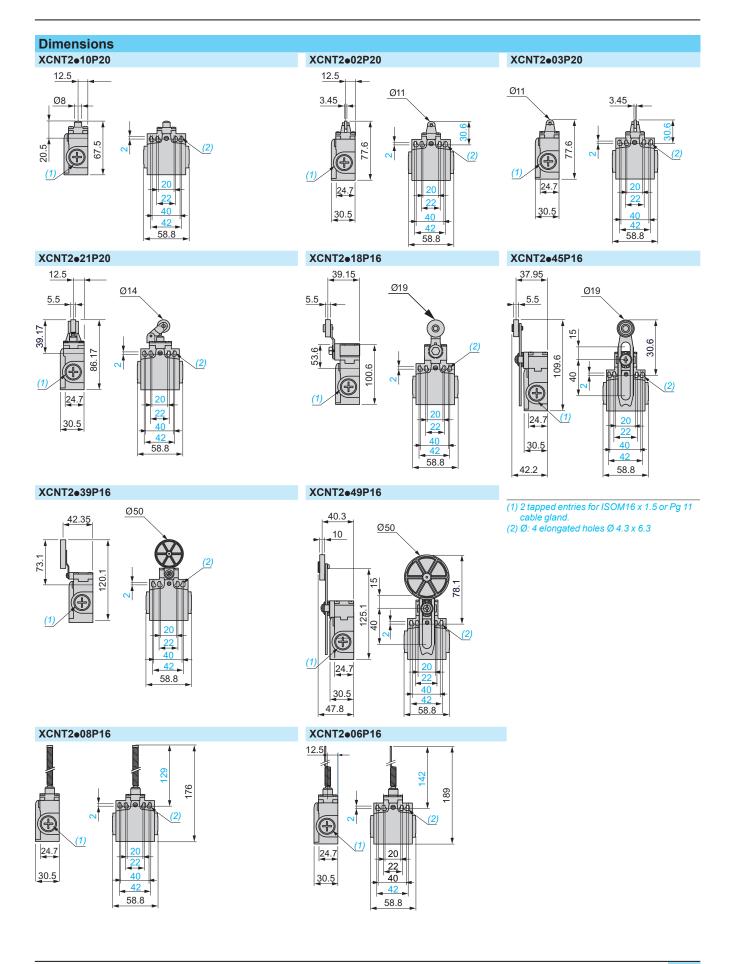
(1) 1 tapped entry for ISOM20 x 1.5 or Pg 11 cable gland. (2) Ø: 2 elongated holes Ø 4.3 x 6.3 on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.



Dimensions (continued)

Limit switches

XC Basic range Compact design, plastic, XCNT Complete switches with 2 cable entries

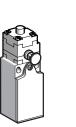


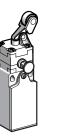


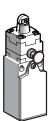
XC Basic range Compact design, plastic, with reset knob, XCNR Complete switches with 1 cable entry

■ XCNR with 1 cable entry

With head for linear movement (plunger)

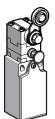






Page 118

With head for rotary movement (lever)



Page 118

General characteristics

Limit switches

XC Basic range Compact design, plastic, with reset knob, XCNR Complete switches with 1 cable entry

Conformity to standards	Products	C€, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC		
somorning to standards	i loudels	CC, IEO 00047-0-1, EN 00047-0-1, OE 000, OSA 022-211-14, EAO		
	Machine assemblies	IEC 60204-1, EN 60204-1		
Product certifications		UL, CSA, CCC		
Protective treatment	Version	Standard: "TC"		
Ambient air temperature	For operation	- 25+ 70°C		
	For storage	- 40+ 70°C		
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10500 Hz)		
Shock resistance	Conforming to IEC 60068-2-27	7 50 gn (11 ms)		
Electric shock protection		Class II conforming to IEC 61140 and NF C 20030		
Degree of protection		IP 65 conforming to IEC 60529; IK 04 conforming to IEC 62262		
Cable entry		Depending on model: tapped entry, for ISO M20 x 1.5 or Pg 11 cable gland, ISO M16 x 1.5 cable gland or PF 1/2 (G 1/2)		
Materials	Bodies	Plastic		
	Heads	Plastic		
Contact block char	acteristics	Î.		
Rated operational character	istics	~AC-15; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 A		
		DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conforming to IEC 60947-5-1 Appendix A, EN 60947-5-1		
Rated insulation voltage	2-pole contact	Ui = 500 V degree of pollution 3 conforming to IEC 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14		
Rated impulse withstand voltage	2-pole contact	U imp = 6 kV conforming to IEC 60947-1, IEC 60664		
Positive operation		NC contacts with positive opening operation conforming to IEC 60947-5-1 Appendix K, EN 60947-5-1		
Short-circuit protection		10 A cartridge fuse type gG (gl)		



XC Basic range Compact design, plastic, with reset knob, XCNR Complete switches with 1 cable entry

		oody)			Rotary (fixing by the body)
ype of operator	Metal end plunger	Plastic roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever plunger, vertical actuation in 1 direction	Thermoplastic roller lever
Sold and packed in lots of	10	10	10	10	10
References of complete switches with 1 IS	SO M20 x 1.5 c	able entry			
2 2-pole NC + NO snap action	XCNR2110P20	4.3(A) 7.8(P) 4.3(A)	XCNR2121P20 9(A)15.9(P) 12.22 13.14 0 5.2 mm	XCNR2127P20	XCNR2118P20
2 57 2-pole NC + NO break before make, slow break	XCNR2510P20 2.8 4.2(P) 2.1-22 13-14 0 4 5.5 mm	$\begin{array}{c} \textbf{XCNR2502P20} \\ & \bigoplus \\ 4.8(A) \ 7.3(P) \\ & 13.14 \\ 0 \ 7 \ mm \end{array}$	XCNR2521P20 → 10(A) 14.9(P) 21-22 13-14 0 14.1 mm	XCNR2527P20 \rightarrow 10(B) 14.9(P) $^{21-22}_{13-14}$ 14.1 mm	XCNR2518P20 28° 47°(P) 21° 22° 13° 14 0 38° 70°
- 2-pole NC + NC simultaneous, slow break	XCNR2710P20 → 2.8 4.2(P) 11-12 21-22 0 5mm	XCNR2702P20	XCNR2721P20 → 10 14.9(P) 1-22 0 mm	XCNR2727P20 10 14.9(P) 11-12 12-22 0 mm	$\begin{array}{c} \textbf{XCNR2718P20} \\ \textcircled{0} \\ 28^{\circ} \ 47^{\circ}(P) \\ 11-12 \\ 0 \\ 90^{\circ} \end{array}$
2-pole NC + NC snap action	XCNR2910P20 2.2 5.1(P) 2.2 5.1(P) 2.2 5.9 mm	XCNR2902P20 3.9 (A) 8.9(P) 11-12 21-22 11-22 11-22 11-2 1	XCNR2921P20	XCNR2927P20	XCNR2918P20 25° 55° (P) 21-12 21-22 21-22 0 12'-22 0 12'-2 70°
Veight (kg)	0.080	0.080	0.085	0.090	0.100
Contact operation	closed	(A) (B) = cam displ (P) = positive open		NC contact wi operation	th positive opening
Characteristics					
witch actuation	On end	By 30° cam			
ype of actuation	l⊎ ∟⊂				
laximum actuation speed	0.5 m/s	0.3 m/s	1 m/s		1.5 m/s
lechanical durability	100,000 operating	g cycles			
finimum force or torque For tripping	15 N	12 N	6 N		0.1 N.m
For positive opening	30 N	20 N	10 N		0.15 N.m
Cable entry	1 entry tapped M2	20 x 1.5 mm for ISO	cable gland, clamp	ing capacity 7 to 13	mm

References of complete switches with 1 Pg 11 cable entry

For complete switches with 1 Pg 11 cable entry replace P20 by G11. Example: XCNR2110P20 becomes XCNR2110G11.

Other cable entries

For complete switches with ISO M16 x 1.5 or PF 1/2 (G 1/2) cable entry, please consult our Customer Care Centre.

Other contacts

For complete switches with 2-pole contacts:

NC + NO make before break, slow break,

NO + NO simultaneous, slow break, please consult our Customer Care Centre.

For complete switches with 3-pole contacts:

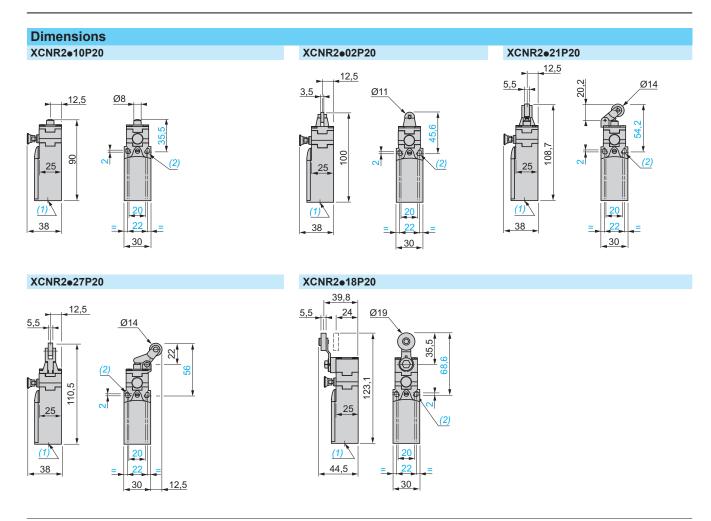
NC + NO + NO snap action, NC + NC + NO snap action, NC + NC + NO break before make, slow break,

NC + NO + NO break before make, slow break, please consult our Customer Care Centre.





XC Basic range Compact design, plastic, with reset knob, XCNR Complete switches with 1 cable entry

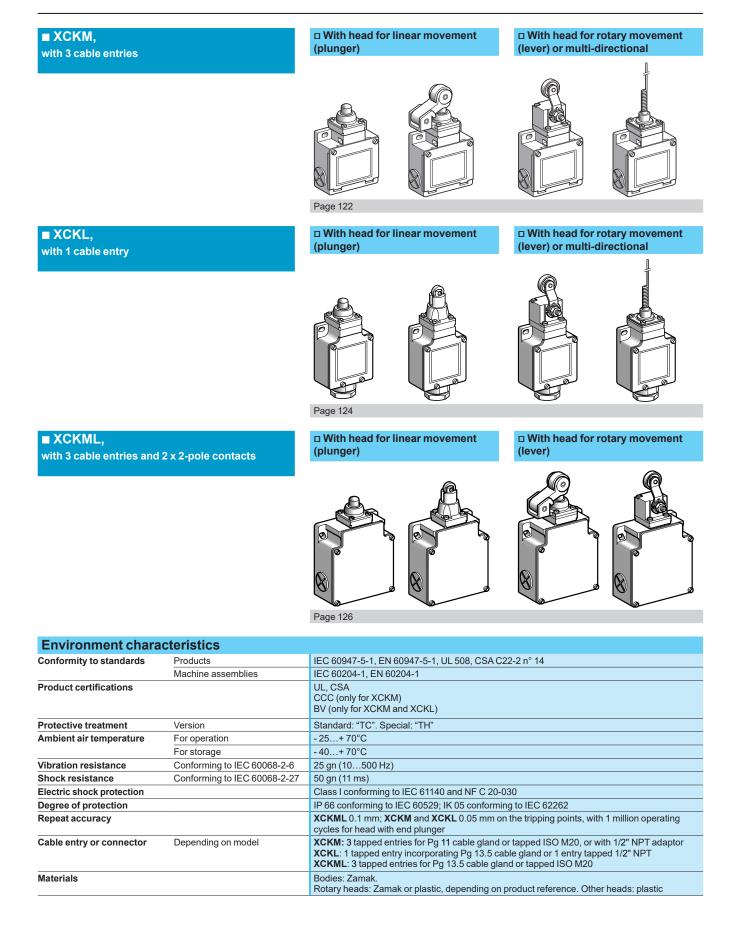


(1) 1 tapped entry for ISO M20 x 1.5 or Pg 11 cable gland. (2) Ø: 2 elongated holes Ø 4.3 x 6.3 on 22 mm centres, 2 holes Ø 4.3 on 20 mm centres.

Presentation, general characteristics

Limit switches

XC Standard range, Classic format Metal, XCKM, XCKL and XCKML



General characteristics (continued)

Limit switches

XC Standard range, Classic format Metal, XCKM, XCKL and XCKML

Contact block chara								
Rated operational characteristics	XE2•P	\sim AC-15; A300 (Ue = 240 V, Ie = 3 A); Ithe = 10 DC-13; Q300 (Ue = 250 V, Ie = 0.27 A), confor	0 A rming to IEC 60947-5-1 Appendix A, EN 60947-5-					
	XE3•P	\sim AC-15; B300 (Ue = 240 V, Ie = 1.5 A); Ithe = DC-13; R300 (Ue = 250 V, Ie = 0.1 A), conform	6 A ning to IEC 60947-5-1 Appendix A, EN 60947-5-1					
Rated insulation voltage	XE2●P	Ui = 500 V degree of pollution 3 conforming to Ui = 300 V conforming to UL 508, CSA C22-2 r						
	XE3•P	Ui = 400 V degree of pollution 3 conforming to Ui = 300 V conforming to UL 508, CSA C22-2 r						
Rated impulse	XE2•P	U imp = 6 kV conforming to IEC 60947-1, IEC	60664					
withstand voltage	XE3•P	U imp = 4 kV conforming to IEC 60947-1, IEC	60664					
Positive operation (dependin	g on model)		orming to IEC 60947-5-1 Appendix K, EN 60947-5					
Resistance across terminals	<u> </u>	$\leq 25 \text{ m}\Omega$ conforming to IEC 60255-7 category	• • • • • •					
Short-circuit	XE2•P	10 A cartridge fuse type gG (gl)	-					
protection	XE3•P	6 A cartridge fuse type gG (gl)						
Connection	XE2SP21e1	Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x	x 1.5 mm ²					
screw clamp terminals)	XE2NP21e1	Clamping capacity, min: $1 \times 0.5 \text{ mm}^2$, max: $2 \times 10^{-1} \text{ mm}^2$						
	XESP2151L and XENP2151L	Clamping capacity, min: 1 x 0.34 mm ² , max: 2 x						
	XE3NP and XE3SP	Clamping capacity, min: 1 x 0.34 mm ² , max: 1 x						
	AESINF and AESSF							
linimum actuation speed		XE2SP21e1, XESP2151L and XE3SP: 0.01 m						
		XE2NP21 •1, XENP2151L and XE3N P: 6 m/m	linute					
Electrical durability		Conforming to IEC 60947-5-1 Appendix C						
		 Utilisation categories AC-15 and DC-13 Maximum operating rate: 3600 operating cy 	/cles/hour					
		 Maximum operating rate: 3000 operating cy Load factor: 0.5 						
		XE2SP2101, XE2SP2141, XESP2151L	XE2NP21•1, XENP2151L					
		AL2072101, AL2072141, AL072101L	AL2NF2101, ALNF2101L					
	AC supply 50/60 Hz \sim	ω 5	<i>(</i> 0 5 					
	m inductive circuit	solo subject to the second sec	Seports 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2					
	The inductive circuit		3 3 12/24/48 V					
			8 1					
		ĕ 0.5 24 V 1	ğ 0.5					
		230/400 V						
			0.2					
		0.1	0.1					
		0.5 1 2 3 4 5 10	0.5 1 2 3 4 5 10					
		Current in A	Current in A					
	DC supply	Power broken in W for 5 million operating	Power broken in W for 5 million operating					
		cycles.	cycles.					
		Voltage V 24 48 120	Voltage V 24 48 120					
		W 10 7 4						
		For XE2SPe151 on \sim or $=$, NC and NO contact	cts simultaneously loaded to the values shown					
		with reverse polarity.						
	AC supply	XE3SP	XE3NPeeee					
	50/60 Hz \sim	8 5 Ithe	s 5 Ithe					
	.m. inductive circuit							
		5 Ullious of operating cycles	5 the 2 12/24/48 V 230 V 110 V 110 V 110 V					
			Ξ <u> </u>					
		230/400 V 24 V	0.2					
			0.1					
		0.1	0.1 1					
		0.1 0.5 1 2 3 4 5 10 0.5 1 Current in A	0.5 1 2 3 4 5 10 Current in A					
	DC supply	0.5 1 2 3 4 5 10 Current in A	0.5 1 2 3 4 5 10 Current in A Power broken in W for 5 million operating					
	DC supply 	0.5 1 2 3 4 5 10 Current in A	0.5 1 2 3 4 5 10 Current in A					
	DC supply	0.5 1 2 3 4 5 10 Current in A Power broken in W for 5 million operating cycles.	0.5 1 2 3 4 5 10 Current in A Power broken in W for 5 million operating cycles.					

References, characteristics

Limit switches

XC Standard range, Classic format Metal, XCKM Complete units with 3 cable entries

Type of operator References of complete 2-pole NC + NO snap action (XE2SP2151) 2-pole NC + NO break before make, slow break (XE2NP2151) 2-pole NC + NC snap action (XE2SP2141) 2-pole NC + NC simultaneous, slow break (XE2NP2141)	2 5 5 5 5 5 5 5 5 5 5	XCKM110H29 → ^{21,22} ^{1,34} 0,9 XCKM510H29 →	Steel roller plunger 20 x 1.5 cable er XCKM102H29 3.1(A) 7.8(P) 3.1(A) 7.8(P) 4122 0 1.5 XCKM502H29 XCKM502H29 3.1(A) 7.8(P)	XCKM121H29 4.6(A) 11.1(P) 4.344 21.32 21.324 0 2.2 mm	Thermoplastic roller lever (1)	"Cat's whisker" (2)
References of comple 2-pole NC + NO snap action (XE2SP2151) 2-pole NC + NO break before make, slow break (XE2NP2151) 2-pole NC + NC snap action (XE2SP2141) 2-pole NC + NC simultaneous, slow break	2{ 	its with 3 ISO M2 XCKM110H29 ↔ 1.8 4.5(P) 1.34 0 0.9 5.5mm XCKM510H29 ↔	20 x 1.5 cable er XCKM102H29 → 3.1(A) 7.8(P) 3.127 31324 1.5 mm	lever plunger, horizontal actuation in 1 direction tries (3) XCKM121H29 ↔ 4.6(A) 11.1(P) 13.14 0.2.2 mm	roller lever (1) XCKM115H29 → 26° 58°(P) 1344	
2-pole NC + NO snap action (XE2SP2151) 2-pole NC + NO break before make, slow break (XE2NP2151) 2-pole NC + NC snap action (XE2SP2141) 2-pole NC + NC simultaneous, slow break	2{ 	XCKM110H29 → ^{21,22} ^{1,34} 0,9 XCKM510H29 →	XCKM102H29 → 3.1(A) 7.8(P) 3.122 3.134 3.134 1.5 mm	XCKM121H29 4.6(A) 11.1(P) 4.344 21.32 21.324 0 2.2 mm	26° 58°(P) 13-14 21-22 13-14	XCKM106H29
2-pole NC + NO snap action (XE2SP2151) 2-pole NC + NO break before make, slow break (XE2NP2151) 2-pole NC + NC snap action (XE2SP2141) 2-pole NC + NC simultaneous, slow break	2{ 	XCKM110H29 → ^{21,22} ^{1,34} 0,9 XCKM510H29 →	XCKM102H29 → 3.1(A) 7.8(P) 3.122 3.134 3.134 1.5 mm	XCKM121H29 4.6(A) 11.1(P) 4.344 21.32 21.324 0 2.2 mm	26° 58°(P) 13-14 21-22 13-14	30° 13-14 13-14 13-14
(XE2SP2151) 2-pole NC + NO break before make, slow break (XE2NP2151) 2-pole NC + NC snap action (XE2SP2141) 2-pole NC + NC simultaneous, slow break	2 5	21:22 13:40 0.9 3.5.5mm 0.9 3.5.5mm 0.9 3.5.5mm	21-22 13-14 21-22 13-14 0 1.5	21-22 13-14 21-22 13-14 0 2.2 mm	21-22 13-14 21-22 13-14	30° 13-14 21-22 13-14
break before make, slow break (XE2NP2151) 2-pole NC + NC (XE2SP2141) 2-pole NC + NC simultaneous, slow break	\7	ХСКМ510Н29 ⊖	XCKM502H29 ↔	1	11°	^U ▶ 4°
Dreak before make, A slow break (XE2NP2151) 2-pole NC + NC C (XE2SP2141) C 2-pole NC + NC C simultaneous, Slow break	\7	-		XCKM521H29 🔿	XCKM515H29 →	XCKM506H29
2-pole NC + NC simultaneous, slow break		1.8 3.2(P) ²¹⁻²² ¹³⁻¹⁴ 0 3 5.5mm	3.1(A) 5.6(P) ²¹⁻²² ¹³⁻¹⁴ 0 5.2 mm	4.6(A) 8(P) 13-14 0 7.6 mm	26° 42°(P) 13-14 0 36° 70°	30° 13-14 0 40°
simultaneous, 5 slow break	77	ZCKM9H29 + ZCKD10 ↔ 1.8 4.5(P) 21-22	ZCKM9H29 + ZCKD02 ↔ 3.1(A) 7.8(P)	ZCKM9H29 + ZCKD21 → 4.6 (A) 11.1 (P)	2CKM9H29 + 2CKD15 ↔ 26° 58°(P) 11-12	ZCKM9H29 + ZCKD06
simultaneous, 5 slow break		21-22 0 5.5mm 0.9	21-22 0 mm 1.5	21-22 0 mm 2.2	2 ¹⁻²² 0 70°	21-22 0 14°
	5 5 7 7 7 7 7 7 7 7	ZCKM7H29 + ZCKD10 ↔ 3.2(P)	ZCKM7H29 + ZCKD02 ↔ 5.6(P)	ZCKM7H29 + ZCKD21 ↔ 8(P)	$\frac{\text{ZCKM7H29} + \text{ZCKD15}}{\frac{42^{\circ}(P)}{2}}$	2CKM7H29 + 2CKD06
		11-12 21-22 1.8 5.5mm	11-12 21-22 3.1(A) 9mm	11-12 21-22 4.6(A) mm	21-22 26° 70°	30°
3-pole	4 7 1 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	ZCKMD39H29 + ZCKD10 ⊖	ZCKMD39H29 + ZCKD02 ⊖	ZCKMD39H29 + ZCKD21 ⊖	ZCKMD39H29 + ZCKD15 ⊖	ZCKMD39H29 + ZCKD06
(AE39P2141) 01 0	vi – i	1.8 4.5(P) mm 21-22 31-32 31-34 21-22 31-32 3	3.1(A) 7.8(P) mm 21-22 31-32 31-34 21-32 31-32 31-32 1.5	4.6(A) 11.1(P) mm 21.22 31-32 13-14 21.22 31-32 13-14 2.2	26° 58°(P) 21-22 31-32 13-14 21-22 31-32 31-32 13-14 0 11° 70°	30° 31-32 13-14 21-22 13-14 21-22 13-14 14°
3-pole 5- NC + NC + NO 5- break before make, 5-	-7-3'	ZCKMD37H29 + ZCKD10 ⊖	ZCKMD37H29 + ZCKD02 ⊖	ZCKMD37H29 + ZCKD21 ⊖	ZCKMD37H29 + ZCKD15 ⊖	ZCKMD37H29 + ZCKD06
slow break 원 원 (XE3NP2141)	14	1.8 3.2 (P) mm ²¹⁻²² ³¹⁻³² ¹³⁻¹⁴ 0 3 5.5	3.1(A) 3.2(P) mm 31-32 13-14 0 5.2 5.5	4.6 (A) 8 (P) mm 21-22 31-32 13-14 0 7.6	26° 42°(P) 31-32 13-14 0 36° 70°	30° 21-22 31-32 13-14 0 40°
Weight (kg)		0.250	0.255	0.300	0.280	0.250
Contact operation	_	closed open	(A) = cam displacemen (P) = positive opening p		⊖ NC contact with pos	sitive opening operation
References of comple	ete un					
or complete units with 3 Pg 11 ca				ample: XCKM110H29 b		

Characteristic	CS							
Switch actuation	ı	On end	By 30° cam		By any moving part			
Type of actuation						→		
Maximum actuat	tion speed	0.5 m/s		1.5 m/s		1 m/s (any direction)		
Mechanical dura (in millions of op		20			15	10		
Minimum force	For tripping	15 N	12 N	8 N	0.1 N.m	0.13 N.m		
or torque	For positive opening	45 N	36 N	24 N	0.25 N.m	-		
Cable entry		3 entries tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm						

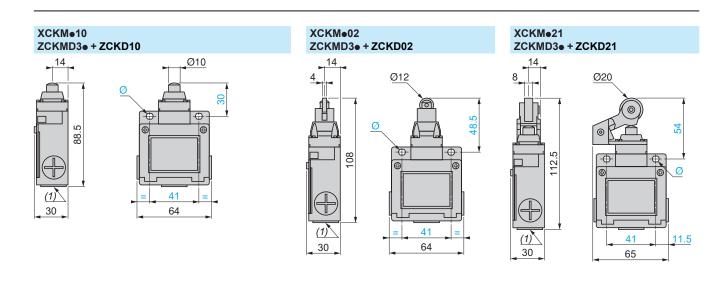
(1) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.
 (2) Value taken with actuation by moving part at 100 mm from the fixing.
 (3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.
 (4) Limited to 15 million operating cycles for switches with contacts XE3•P.

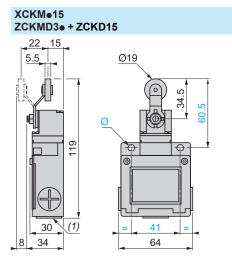


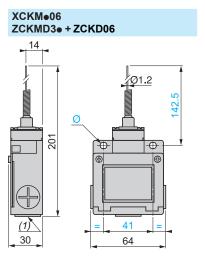
Dimensions

Limit switches

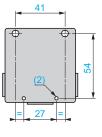
XC Standard range, Classic format Metal, XCKM Complete units with 3 cable entries







Rear view XCKM..., ZCKM., ZCKMD3.



(1) 3 tapped entries for ISO M20 x 1.5 or Pg 11 cable gland or with 1/2" NPT conduit adaptor DE9RA1012. (2) 2 x Ø 4 H 11, depth 10. Ø: 2 elongated holes Ø 5.2 x 6.2

Adaptor for 1/2" NPT conduit DE9RA1012



(1) Tapped entry for 1/2" NPT conduit.
(2) Pg 11 threaded sleeve.



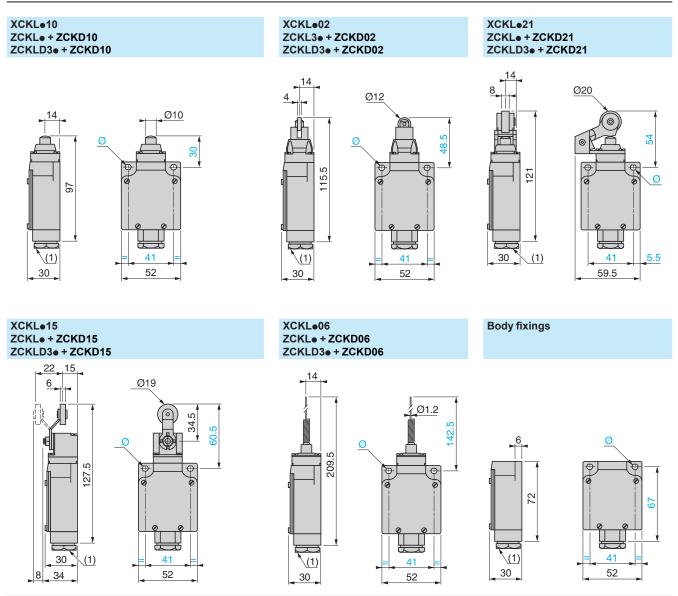
References, characteristics

Limit switches

XC Standard range, Classic format Metal, XCKL Complete units incorporating Pg 13.5 cable gland

Type of head		Plunger (fixing by	the body)		Rotary (fixing by the body)	Multi-directional (fixing by the body)
ype of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever <i>(1)</i>	"Cat's whisker" (2)
References	(3)					
-pole NC + NO	5 13	XCKL110⊖	XCKL102	XCKL121 🔿	XCKL115	XCKL106
map action XE2SP2151)	2 3	1.8 4.5(P) 1.344 21:22 13:44 21:22 13:44 0.9 5.5mm	3.1(A) 7.8(P) 3.12 3.14 21:22 13:14 0 mm	4.6 (A) 11.1(P) 13-14 13-14 13-14 4.6 (A) 11.1(P) 4.6 (A) 11.1(P)	26° 58°(P) 13-14 21-22 13-14 21-22 13-14 11° 70°	30° 13.14 21.22 13.14 0 14°
-pole NC + NO	5 13 S	XCKL510⊖		XCKL521 →	XCKL515 🔿	XCKL506
preak before mak slow break XE2NP2151)	ze, τ − − − − − − − − − − − − − − − − − − −	1.8 3.2(P) ²¹⁻²² ¹³⁻¹⁴ 0 3 5.5mm	3.1(A) 5.6(P) ²¹⁻²² ¹³⁻¹⁴ 0 5.2 mm	4.6(A) 8(P) ²¹⁻²² ¹³⁻¹⁴ 0 7.6 mm	26° 42°(P) ²¹⁻²² ¹³⁻¹⁴ 0 36° 70°	30° 21-22 13-14 0 40°
-pole IC + NC + NO nap action XE3SP2141)	32 22 14 13 13	ZCKLD39 + ZCKD10 ⊖	ZCKLD39+ ZCKD02 ⊖	ZCKLD39 + ZCKD21 ⊖	ZCKLD39 + ZCKD15 ⊖	ZCKLD39 + ZCKD06
AE33F2141)		1.8 4.5(P) mm 1.3 4.5(P) mm 1.3 14 1.3 14	3.1(A) 7.8(P) mm 21-22 31-32 13-14 21-22 31-32 13-14 1.5	4.6(A) 11.1(P) mm 21.22 31.32 13.14 21.22 31.32 13.14 2.2	26° 58°(P) 31-32 13-14 21-22 31-32 13-14 21-22 31-32 13-14 0 70°	30° 21-22 31-32 13-14 21-22 31-32 13-14
-pole NC + NC imultaneous, low break XE2NP2141)	22 1 2	3.2(P) 3.2(P)	2CKL7 + 2CKD02 → 5.6(P) 11-12 11-12	2CKL7 + 2CKD21 ↔ 8(P) 11-12 12-22	2CKL7+ 2CKD15 ↔ ^{42°(P)}	2CKL7 + 2CKD06
		1.8 5.5mm	3.1(A) 9mm	4.6(A) mm	23° 70°	30°
-pole IC + NC + NO reak before mak low break	16 , $\begin{bmatrix} 22 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\ -1 \\$	ZCKLD37 + ZCKD10 ↔ 1.8 3.2(P) mm	ZCKLD37 + ZCKD02 ↔ 3.1(A) 3.2(P) mm	ZCKLD37 + ZCKD21 ↔ 4.6 (A) 8(P) mm	ZCKLD37 + ZCKD15 ↔ 26° 42°(P)	ZCKLD37 + ZCKD06 30°
(XE3NP2141)		21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14	21-22 31-32 13-14
Veight (kg)		0 3 5.5 0.255	0 5.2 5.5 0.260	0 7.6 0.305	0 36° 70° 0.285	0 40°
contact operation	n	closed	(A) = cam displacemen	t	\bigcirc NC contact with pos	
		🖂 open	(P) = positive opening p	point		
Characteris	STICS	On and	Du 20%			Duamum
witch actuation ype of actuation		On end	By 30° cam		1	By any moving part
ypo or dotadion						
laximum actuati	on speed	0.5 m/s		1.5 m/s		1 m/s (any direction
lechanical dural in millions of ope		20			15	10
Ainimum force		15 N	12 N	8 N	0.1 N.m	0.13 N.m
or torque	For positive opening	45 N	36 N	24 N	0.25 N.m	-
Cable entry	ughout 360° in 5° steps,	, , ,	i	ing capacity 6 to 13.5 m	n.	
(2) Value taken wit(3) Switches with g	th actuation by moving p gold contacts or eyelet ty illion operating cycles fo	art at 100 mm from the fipe connections: please	ixing. consult our Customer Ca			

XC Standard range, Classic format Metal, XCKL Complete units incorporating Pg 13.5 cable gland



(1) Incorporated Pg 13.5 cable gland Ø: 2 elongated holes Ø 5.2 x 6.2

References, characteristics

Limit switches

XC Standard range, Classic format Metal, 2 x 2-pole contacts, XCKML Complete switches with 3 cable entries

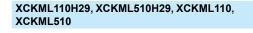
Type of head	Plunger (fixing by the bo		Rotary (fixing by the body)	
Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever plunger, horizontal actuation in 1 direction	Thermoplastic roller lever (1)
References of comple	te switches with 3 IS	O M20 x 1.5 cable ent	ries (2)	
x 2-pole NC + NO	XCKML110H29⊖	XCKML102H29⊖	XCKML121H29 ↔	XCKML115H29⊖
$ \begin{array}{c} \begin{array}{c} \text{Supportion} (XESP2151L) \\ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	2 2 2 2 2 2 2 2 2 2 5 (P) 4 B 6 mm 1.2	4(A) 9(P) 4(A) 9(P) 4(A) 9(P) A A B B mm	5(A) 12.6(P) 12.42 12.42 12.42 12.42 12.42 12.42 12.42 13.14 0 3 mm	21-22 21-22 25° 64°(P) 13-14 0 14° 70° 4 B B
2 x 2-pole NC + NO break before make, slow break (XENP2151L) $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	XCKML510H29 2 3.4(P) 2 12-22 13-14 0 3.3 6.6mm	XCKML502H29 \bigoplus ²¹⁻²² ²⁴⁻²² ²⁴⁻²² ²⁴⁻²² ¹³⁻¹⁴ \bigoplus A B mm	XCKML521H29	XCKML515H29 \bigcirc 21-22 13-14 0 42° 70°
References of comple	ete switches with 3 en	tries tapped for n° 13	cable gland (2)	
2 x 2-pole NC + NO snap action (XESP2151L) $\begin{array}{c c} & & \\ \hline \hline & & \\ \hline & & \\ \hline & & \\ \hline \hline & & \\ \hline & & \\ \hline \hline \\ \hline & & \\ \hline \hline \\ \hline \hline & & \\ \hline \hline \hline \\ \hline \hline \\ \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \hline \hline \\ \hline \hline$	XCKML110 2 5 2 5 6 6 6 6 6 6 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	XCKML102 (A) 9(P) (A) 4(A) 9(P) (A) 4(A) 4(A) 9(P) (A) 4(A) 4(A) 4(A) 4(A) 4(A) 4(A) 4(A) 4	XCKML121 5(A) 12.6(P) 5(A) 12.6(P) A A B B mm	XCKML115
2 x 2-pole NC + NO preak before make, slow break XENP2151L) $\begin{array}{c c} & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $	XCKML510 21-22 21-22 21-24 21-24 21-24 21-24 21-24 3-14 0 3.3 6.6mm	XCKML502 \bigcirc ^{21,22} ^{21,22} ^{13,14} 0 6 mm	XCKML521 \textcircled{O} $\begin{array}{c} 6(A) & 9.3(P) \\ 21.22 \\ 71.324 \\ 0 & 10 mm mm $	$\begin{array}{c} 14^{\circ} \\ \textbf{XCKML515} \textcircled{>} \\ 3 \\ 13 \\ 13 \\ 13 \\ 13 \\ 15 \\ 14 \\ 0 \\ 42^{\circ} \\ 70^{\circ} \\ \end{array}$
Weight (kg)	0.400	0.405	0.450	0.430
Contact operation	closed	(A) = cam displacement	→ NC contact with positive ope	ening operation
	🖂 open	(P) = positive opening point		
Characteristics				
Switch actuation	On end	By 30° cam		
Type of actuation		-		
Maximum actuation speed	0.5 m/s		1.5 m/s	
Mechanical durability	3 million operating cycles			
Minimum force For tripping	15 N	12 N	8 N	0.2 N.m
For positive opening	60 N	50 N	50 N	0.5 N.m
Cable entry	3 entries tapped ISO M20 x 1.5 NF C 68-300 (DIN Pg 13.5), cla	5, clamping capacity 7 to 13 mm, amping capacity 9 to 12 mm.	or 3 entries tapped for n° 13 cab	le gland conforming to

(2) Switches available with other 2-pole slow break contact blocks: NO + NC make before break, NC + NC simultaneous (with positive opening operation), NO + NO simultaneous. Please consult our Customer Care Centre.

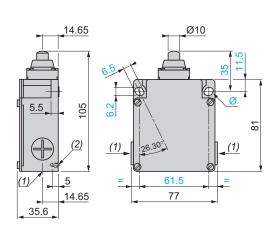
Note: replacement parts

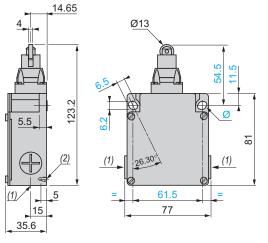
The heads of limit switches XCKML are the same as those for XCKM and XCKL (see heads ZCKD10, ZCKD02, ZCKD21 and ZCKD15 on page 128).

XC Standard range, Classic format Metal, 2 x 2-pole contacts, XCKML Complete switches with 3 cable entries



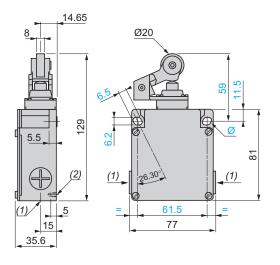


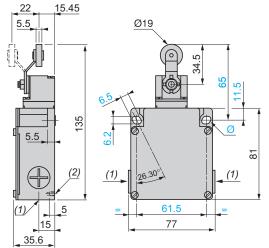




XCKML115H29, XCKML515H29, XCKML115, XCKML515

XCKML121H29, XCKML521H29, XCKML121, XCKML521





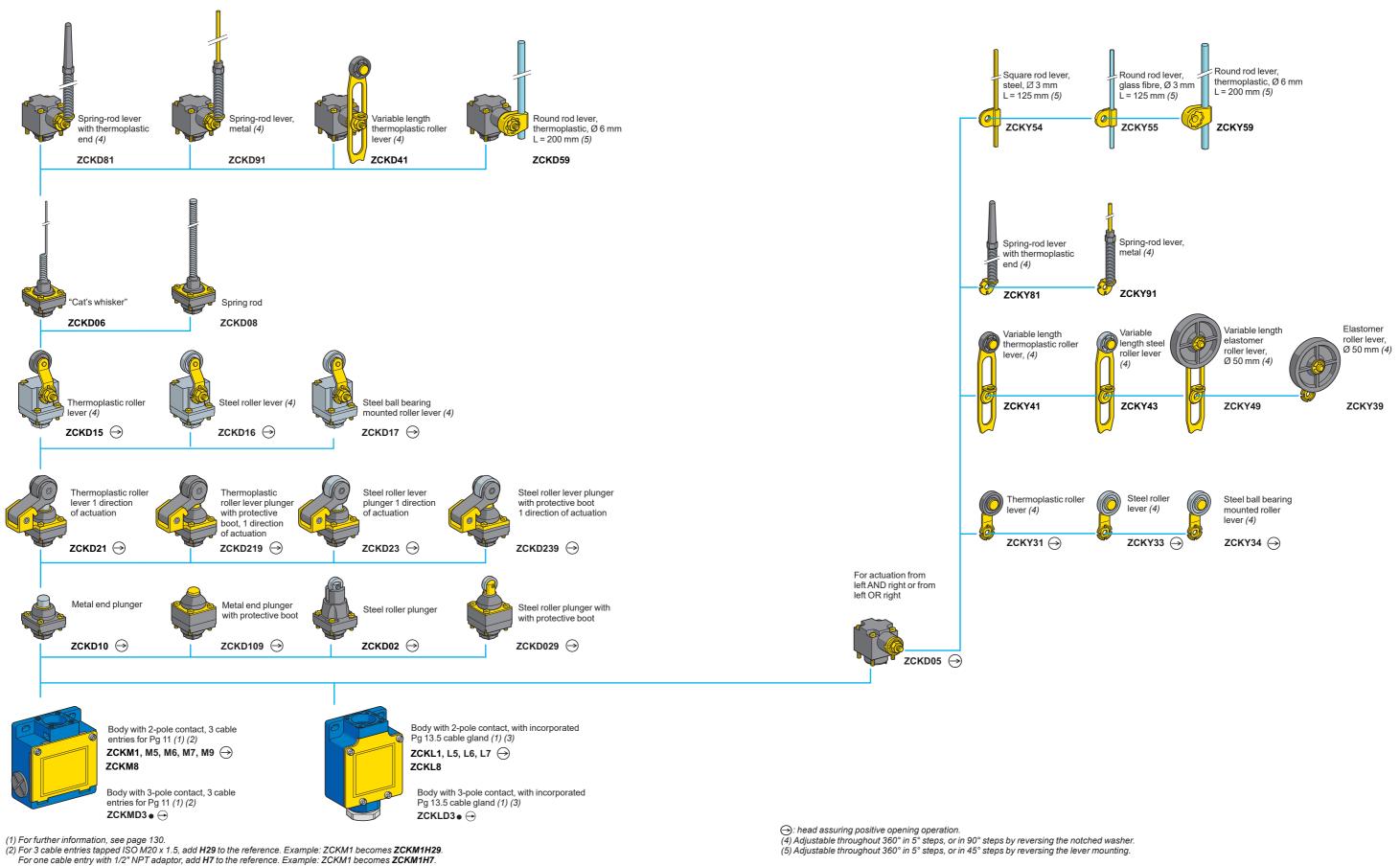
(2) 2 centring holes Ø 3.9 ± 0.2 , for cover fixing holes alignment.

Ø 2 elongated holes 6.2 x 6.5, inclined at 26° 30' to the vertical axis, for M5 screws.

Presentation

Limit switches

XC Standard range, Classic format Metal, XCKM and XCKL Variable composition



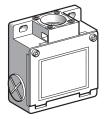
(3) For one cable entry tapped 1/2" NPT, add H7 to the reference. Example: ZCKL1 becomes ZCKL1H7.

(E) Telemecanique

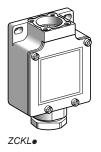
128



XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies



ZCKM•



With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
For limit switches XCK	М				
IC + NO	21	\ominus	Pg 11	ZCKM1	0.21
nap action	×7	\bigcirc	ISO M20 x 1.5	ZCKM1H29	0.21
XE2SP2151)	22		1/2" NPT (2)	ZCKM1H7	0.21
IC + NO	21 13	\ominus	Pg 11	ZCKM5	0.21
oreak before make, slow break	∖7	-	ISO M20 x 1.5	ZCKM5H29	0.21
XE2NP2151)	22		1/2" NPT <i>(2)</i>	ZCKM5H7	0.21
IO + NC	21	\ominus	Pg 11	ZCKM6	0.21
nake before break, Iow break	7-5'	•	ISO M20 x 1.5	ZCKM6H29	0.21
XE2NP2161)	14 22		1/2" NPT <i>(2)</i>	ZCKM6H7	0.21
IC + NC	5 1	\ominus	Pg 11	ZCKM7	0.21
imultaneous, Iow break	77	J. J	ISO M20 x 1.5	ZCKM7H29	0.21
XE2NP2141)	5 23		1/2" NPT <i>(2)</i>	ZCKM7H7	0.21
IO + NO	23 13	-	Pg 11	ZCKM8	0.21
imultaneous, Iow break	λ		ISO M20 x 1.5	ZCKM8H29	0.21
XE2NP2131)	54 4		1/2" NPT <i>(2)</i>	ZCKM8H7	0.21
IC + NC	51 11	\ominus	Pg 11	ZCKM9	0.21
nap action XE2SP2141)	<u>++</u> 5 2	-	ISO M20 x 1.5	ZCKM9H29	0.21
For limit switches XCK	L				
IC + NO	21 13	\ominus	Pg 13.5	ZCKL1 (3)	0.21
map action XE2SP2151)	5 4	C C	1/2" NPT	ZCKL1H7	0.21
IC + NO	21	\ominus	Pg 13.5	ZCKL5 (3)	0.21
reak before make, low break	∖7	\bigcirc	1/2" NPT	ZCKL5H7	0.21
XE2NP2151)	22				
IO + NC	13	\ominus	Pg 13.5	ZCKL6 (3)	0.21
nake before break, Iow break	7-5'	-	1/2" NPT	ZCKL6H7	0.21
XE2NP2161)	14 22				
IC + NC	5 17	\ominus	Pg 13.5	ZCKL7 (3)	0.21
imultaneous, Iow break KE2NP2141)		-	1/2" NPT	ZCKL7H7	0.21
IO + NO	23	_	Pg 13.5	ZCKL8 (3)	0.21
imultaneous,	∽ ~ ≻≯		1/2" NPT	ZCKL8H7	0.21
low break XE2NP2131)	57 47				

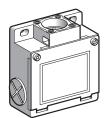
(1) \bigoplus : NC contact with positive opening operation.

(2) 3 tapped entries, one with metal adaptor for 1/2" NPT (USASB2-1) conduit.

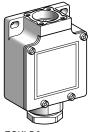
(3) Pg 13.5 cable gland included with switch.

Bodies with 2-pole contact

XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies



ZCKMD3•



ZCKLD3•

With contact block	Scheme	Positive	Cable entry	Reference	Weight	
with contact block	Scheme	operation (1)	Cable entry	Reference	kg	
For limit switches XCI	KM					
NC + NO + NO	33 21	\ominus	Pg 11	ZCKMD31	0.210	
snap action	7	\bigcirc	ISO M20 x 1.5	ZCKMD31H29	0.210	
(XE3SP2151)	34		1/2" NPT <i>(2)</i>	ZCKMD31H7	0.210	
NC + NC + NO	33	\ominus	Pg 11	ZCKMD39	0.210	
snap action	<i>77</i> \	\bigcirc	ISO M20 x 1.5	ZCKMD39H29	0.210	
(XE3SP2141)	(4)33		1/2" NPT (2)	ZCKMD39H7	0.210	
NC + NC + NO	31	\ominus	Pg 11	ZCKMD37	0.210	
break before make,	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0	ISO M20 x 1.5	ZCKMD37H29	0.210	
slow break (XE3NP2141)	4 33		1/2" NPT (2)	ZCKMD37H7	0.210	
NC + NO + NO	33	\ominus	Pg 11	ZCKMD35	0.210	
oreak before make, slow break XE3NP2151)	7	\bigcirc	ISO M20 x 1.5	ZCKMD35H29	0.210	
	34 34 14		1/2" NPT (2)	ZCKMD35H7	0.210	
For limit switches XCI	KL					
NC + NO + NO	33 33	\ominus	Pg 13.5	ZCKLD31 (3)	0.210	
snap action (XE3SP2151)		Ŭ	1/2" NPT	ZCKLD31H7	0.210	
NC + NC + NO	221	\ominus	Pg 13.5	ZCKLD39 (3)	0.210	
snap action (XE3SP2141)		0	1/2" NPT	ZCKLD39H7	0.210	
NC + NC + NO	31	\ominus	Pg 13.5	ZCKLD37 (3)	0.210	
break before make, slow break (XE3NP2141)		0	1/2" NPT	ZCKLD37H7	0.210	
NC + NO + NO	33	\ominus	Pg 13.5	ZCKLD35 (3)	0.210	
break before make, slow break (XE3NP2151)		\bigcirc	1/2" NPT	ZCKLD35H7	0.210	

(1) \bigoplus : NC contact with positive opening operation.

(2) 3 tapped entries, one with metal adaptor for 1/2" NPT (USASB2-1) conduit.

(3) Pg 13.5 cable gland included with switch.

References (continued)

Limit switches

XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies



XE2SP21•1



XE2NP21•1



Contact blocks					
Type of contact	Scheme	For bodies	Positive operation (1)	Reference	Weight kg
2-pole contact					
NC + NO snap action	22 13	ZCKM1 ZCKL1	\ominus	XE2SP2151	0.020
NC + NO break before make, slow break	22	ZCKM5 ZCKL5	\ominus	XE2NP2151	0.020
NO + NC make before break, slow break	27 13 13 13	ZCKM6 ZCKL6	Θ	XE2NP2161	0.020
NC + NC simultaneous, slow break	22 11	ZCKM7 ZCKL7	Θ	XE2NP2141	0.020
NO + NO simultaneous, slow break	24 13 24 23	ZCKM8 ZCKL8	-	XE2NP2131	0.020
NC + NC snap action	22	ZCKM9	Θ	XE2SP2141	0.020
3-pole contact					
NC + NO + NO snap action	22 34 14 13 13 13	ZCKMD31 ZCKLD31	\ominus	XE3SP2151	0.035
NC + NC + NO snap action	32 22	ZCKMD39 ZCKLD39	\ominus	XE3SP2141	0.035
NC + NC + NO break before make, slow break	32 31 22 22 21 14 1/ 13	ZCKMD37 ZCKLD37	\ominus	XE3NP2141	0.035
NC + NO + NO break before make, slow break	22 34 14 1 13 33 13 33 14 13 33	ZCKMD35 ZCKLD35	\ominus	XE3NP2151	0.035

 $(1) \bigoplus$: NC contact with positive opening operation or sub-assembly assuring positive opening operation.

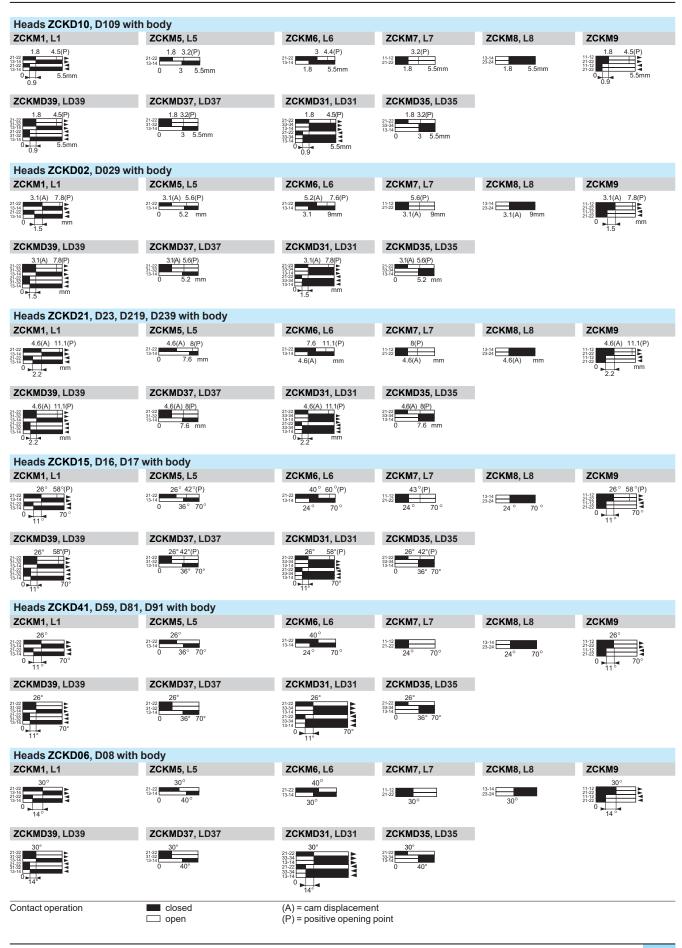
Accessory for lin	nit switches XCKM		
Description	Sold in lots of	Unit reference	Weight kg
Tap-off terminal for cabling continuity	1	XCKZ09	0.010
Other versions	Gold flashed contacts.		

Please consult our Customer Care Centre.



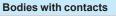


XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies

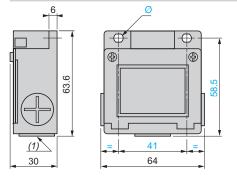




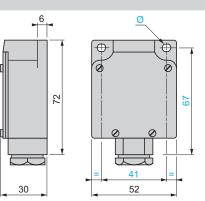
XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies



ZCKM1, M5, M6, M7, M8, M9, MD3•, MD3H•29, MD3•H7 ZCKM1H29, M5H29, M6H29, M7H29, M8H29, M9H29 ZCKM1H7, M5H7, M6H7, M7H7, M8H7



ZCKL1, L5, L6, L7, L8, LD3• (with incorporated Pg 13.5 cable gland) ZCKL1H7, L5H7, L6H7, L7H7, L8H7, LD3•H7 (with 1/2" NPT cable entry)



Adaptor for 1/2" NPT conduit DE9RA1012

(3)



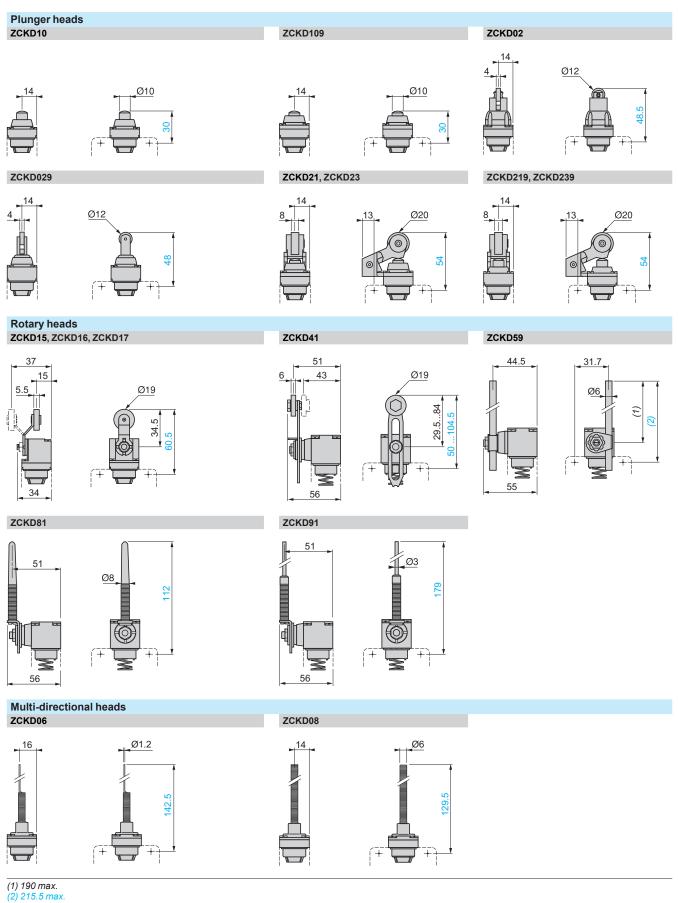
(1) 3 tapped entries for ISO M20 x 1.5 or Pg 11 cable gland.

Ø: 2 elongated holes Ø 5.2 x 6.2 (2) Tapped entry for 1/2" NPT conduit. (3) Pg 11 threaded sleeve.

Dimensions (continued)

Limit switches

XC Standard range, Classic format Metal, XCKM and XCKL Adaptable sub-assemblies



Note: operating lever spindle threaded M6.

Presentation, general characteristics

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS

Complete switch

D XCKS, with head for linear (plunger) and rotary (lever) movement

with 2 contacts (NO + NC) and 1 cable entry
 The XCKS limit switches range, with 2 integrated contacts, offers "all-in-one", ready to use products.



□ ZCKD: complete head with linear or rotary actuator □ ZCKS: bodies with 2, 3 or 4 contacts



The variable composition range expands the offer up to 4 contacts and choice among 18 different actuators.









0 CL
XCK-S
C Dar Anno Anno Anno Anno Anno Anno Anno Ann

Environment chara	octeristics	
Conformity to standards	Products	C€, EN/IEC 60947-5-1, UL 508, CSA C22-2 n°14, CCC, EAC
	Machine assemblies	EN/IEC 60204-1
Product certifications		UL, CSA, CCC, EAC
Protective treatment	Version	Standard "TC", special "TH"
Ambient air temperature	For operation	- 25+ 70 °C
	For storage	- 40+ 70 °C
Vibration resistance	Conforming to EN/IEC 60068-2-6	25 gn (10500 Hz)
Shock resistance	Conforming to EN/IEC 60068-2-27	XCKS1ee: 40 gn (11 ms) XCKS5ee: 50 gn (11 ms)
Electric shock protection	Conforming to EN/IEC 61140	Class II
Degree of protection	Conforming to EN/IEC 60529	XCKS1ee , XCKS5ee : IP 66 and IP 67 ZCKS : IP 65
	Conforming to EN 62262	XCKS1ee, XCKS5ee: IK 05 ZCKS: IK 03
Cable entry	Depending on model	Tapped entry for cable gland: Pg 13.5 ISO M20 x 1.5 1/2" NPT
Materials		Bodies and heads: plastic

General characteristics (continued)

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS

Contact block	charac	teristic	S											
Type of contacts		Conforming EN/IEC 609			Type Zb	, electri	ically s	eparat	te double breał	contacts				
Positive operation (d	epending o	n model)			NC conta	acts with	h positiv	e ope	ning operation o	conforming to E	N/IEC 609	947-5-1	Appendix K	
Rated operational characteristics		XCKS1●●, XE2●P●, X		•					/, le = 3 A) ; lthe V, le = 0.27 A),		EN/IEC 6)947-5-	1 Appendix A	
		XE3●P●							/, le = 1.5 A) ; lt V, le = 0.1 A), ce		N/IEC 609	947-5-1	Appendix A	
Rated insulation volt	•	XCKS1●●, XE2●P●, X		•	Ui = 500	V degr	ree of p	ollutio	on 3 conforming	g to EN/IEC 60)947-5-1			
		XE3•P•			Ui = 300	V confo	orming	to UL :	508 and CSA C	22-2 n° 14				
Rated impulse withstand XCKS1ee, XCKS5ee voltage XE2ePe, XESPe				U imp =	6 kV co	onformir	ng to E	N/IEC 60947-7	1, IEC 60664					
		XE3•P•			U imp =	4 kV co	onformir	ng to E	N/IEC 60947-1	1, IEC 60664				
Short-circuit protecti		XCKS1●●, XE2●P●, X		••	10 A car	tridge fi	use typ	e gG ((gl)					
		XE3•P•			6 A cartr	idge fus	se type	gG (g	gl)					
Resistance across te	rminals				≤25 mΩ	confor	ming to	EN/IE	EC 60255-7 cat	egory 3				
Connection (screw clamp terminals	s)	XCKS1●●, XE2SP21●	1	•					0.34 mm ² /AW					
		XE2NP21e1			· · ·		-		0.5 mm ² /AWG					
		XESP			·	• •			0.75 mm ² /AW					
		XE3•P•			Clampin or 2 x 0.				0.34 mm ² /AW	G 22, max: 1 >	x 1 mm² / /	AWG 18		
Minimum actuation s	peed				Snap ac	tion cor	ntacts (хска	S1•, XE•SP• a	and XESP•): ().01 m/mii	nute		
					Slow bre	eak con	tacts (X	KCKS	5●, XE2NP● a	nd XE3NP•):	6 m/minut	e		
Electrical durability	-			$3/\sim$ 230 V	15 millio	n opera	ating cy	cles						
	>	(CKS5•• +	LC1D38	$3/\sim$ 230 V	20 millio	<u> </u>								
	Z	ZCKS		 Conforming to IEC 60947-5-1 Appendix C Utilisation categories AC-15 and DC-13 Maximum operating rate: 3600 operating c 										
					Load	factor:	0.5		•					
	XE2SP21	1, XE2SP	2141		XE2NP2	21•1				XESP3	021			
50/60 Hz ∼ m inductive circuit	⁶ 0,5	10 V 10 V 1/400 V 1 2	24 48 3 4 5 Cu		Willions of operating cycles	1	230 V	110	1 ithe 1/24/48 V 4 5 10 Current in A	Millions of operating cycles	230 \	2	12/24 V 12/24 V 110 V 3 4 5 10 Current in.	
DC supply	Power brok	en in W for	5 million	operating	Power br	oken in	Wfor	5 millio	on operating	Power bi	oken in W	/ for 5 m	illion operatir	ng
	cycles.	1 24	40	120	cycles.	V	24	40	120	cycles.				-
	Voltage V	24 V 10	48 7	120	Voltage 	V W	24 13	48 9	120 7	Voltage		24 4 10 7		
	For XE2S F	Pe151 on \sim	- or, N	IC and NO c	ontacts sim	ultaneo	ously lo	aded	to the values s	hown with rev	erse pola	rity.		
	XE3SP ••	••			XE3NPe									
AC supply 50/60 Hz ∼ m inductive circuit	Millions of operating cycles	10 V	24		Millions of operating cycles		230 V		Ithe					
	0,1	1 2		5 10 Current in A	0,2 0,1 0,5				Current in A					
	Power brok cycles.	en in W for	5 million	operating	Power br	oken in	vv for	o millio	on operating					
	Voltage V	<mark>/ 24</mark> V 3	48 2	120	Voltage	V W	24 4	48 3	120 2					

References, characteristics

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Complete switches with 1 cable entry

Type of head	Plunger (fixing	g by the body)	Rotary (fixing	by the body)			
Form conforming to EN 50041 (1)	В	С	A	A	A	A	D
Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic or steel roller lever (2)	Elastomer roller lever, Ø 50 mm <i>(2)</i>	Variable length thermoplastic or steel roller lever (2)	Variable length elastomer roller lever, Ø 50 mm (2)	Round thermoplastic rod lever, Ø 6 mm (3) (4)
Positive operation	⊖	⊖	⊖	-	⊖	-	-
References of com	plete switch	es with 1 IS	O M20 x 1.5 c	able entry			
♀ ぢ 2-pole NC + NO snap action ₹ ゔ	XCKS101H29	XCKS102H29	XCKS131H29 (thermoplastic) XCKS133H29 (steel)	XCKS139H29	XCKS141H29 (thermoplastic) XCKS143H29 (steel) 23° 47°(P)	XCKS149H29	XCKS159H29
	13-14 21-22 13-14 0 6,2 mm	13-14 21-22 13-14 0 1,7	13-14 21-22 13-14 0 12° 75°	13-14 21-22 13-14 0 12° 75°	13-14 21-22 13-14 0 12 ^o 75 ^o	13-14 21-22 13-14 0 12° 75°	13-14 12° 13-14 0 12° 75°
Provide the second s	XCKS501H29	XCKS502H29	XCKS531H29 (thermoplastic) XCKS533H29 (steel)	XCKS539H29	XCKS541H29 (thermoplastic) XCKS543H29 (steel)	XCKS549H29	XCKS559H29
	21-22 13-14 0 3,2 6,2 mm	4,3(A) 6,6(P) 13-14 0 5,5 mm	23° 40°(P) 21-22 13-14 0 32° 75°	23° 13-14 0 32° 75°	23° 40°(P) 13-14 0 32° 75°	23° 13-14 0 32° 75°	23° 13-14 0 32° 75°
Weight (kg)	0.125	0.135	0.160	0.175	0.165	0.180	0.170
Contact operation	closed open		(A) = cam displace (P) = positive oper		→ NC contact wit	h positive opening	operation
References of com							
For an entry tapped for a Pg 1 and XCKS543H29). Example	3.5 cable gland, de : XCKS101H29 be	elete H29 from the comes XCKS101 .	end of the referenc	e. (Except XCKS1	33H29, XCKS143H	H29, XCKS533H29	

References of complete switches with 1/2" NPT cable entry

For an entry tapped for a 1/2" NPT cable gland, replace H29 at the end of the reference by H7. (Except XCKS133H29, XCKS143H29, XCKS501H29, XCKS533H29, XCKS533H29, XCKS543H29, XCKS549H29 and XCKS559H29). Example: XCKS101H29 becomes XCKS101H7.

Charac	teristics								
Switch actu	ation	On end	By 30° cam					By any moving part	
Type of act	uation			or					
Maximum actuation speed 0.5 m/s		1.5 m/s 1 m/s							
Mechanical durability (in millions of operating cycles)		25	15	20					
Minimum	For tripping	15 N	12 N	0.10 N.m					
force or torque	For positive opening	30 N	20 N	0.15 N.m	-	0.15 N.m	-	-	
Cable entry 1 entry tapped M20 x 1.5 mm for IS0) cable gland, clam	ping capacity 7 to	13 mm				

(1) Form conforming to EN 50041, see page 25.
(2) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.
(3) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.
(4) Value taken with actuation by moving part at 100 mm from the fixing.

References, characteristics

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches with 1 cable entry



Note: ZCKD heads can only be used with ZCKS bodies.

References of variable	le compositio	n switches (Z	CKS bodies a	nd ZCKD hea	ds) with 1 ISO	M20 x 1.5 cat	ole entry (3)
Form conforming to EN 50041 <i>(1)</i>	В	С	А	A	A	A	D
Type of operator	Metal end plunger	Steel roller plunger	Thermoplastic roller lever <i>(2)</i>	Elastomer roller lever, Ø 50 mm <i>(2)</i>	Variable length thermoplastic roller lever <i>(2)</i>	Variable length elastomer roller lever, Ø 50 mm <i>(2)</i>	Round thermoplastic rod lever, Ø 6 mm (4) (5)
Positive operation	\odot	\ominus	\ominus	-	\ominus	-	-
$\begin{bmatrix} -1 \\ -7 \\ -7 \\ -7 \\ -7 \\ -7 \\ -7 \\ -7 \\$	ZCKS9H29 + ZCKD01	ZCKS9H29 + ZCKD02	ZCKS9H29 + ZCKD31	ZCKS9H29 + ZCKD39	ZCKS9H29 + ZCKD41	ZCKS9H29 + ZCKD49	ZCKS9H29 + ZCKD59
	1,8 4,5(P) 11-12 111-12 11-12	3,1(A) 7,8(P) 21-22 21-22 11-12 21-22 11-12 21-22 0 1,5 mm	23° 58°(P) 21-22 21-22 11-12 21-22 11-12 21-22 0 11° 80°	23° 21-22 11-12 21-22 11-12 21-22 11-12 21-22 11-12 21-22 0 11° 80°	23° 58°(P) 21-22 21-22 21-22 21-22 11-12 21-22 0 11° 80°	23° 21-22 21 21-22 21 21-22 21 21-22 21 21-22 21 21-22 21 21-22 21 21 21-22 21 21 21 21 21 21 21 21 21 21 21 21 2	23° 21-22 21-22 11-12 21-22 20 11° 80°
E 2-pole NC + NC simultaneous, / −−−/ slow break	ZCKS7H29 + ZCKD01	ZCKS7H29 + ZCKD02	ZCKS7H29 + ZCKD31	ZCKS7H29+ ZCKD39	ZCKS7H29 + ZCKD41	ZCKS7H29 + ZCKD49	ZCKS7H29 + ZCKD59
	3,2(P) 21-22 0 1,8 5,5 mm	5,6(P) 21-22 0 3,1(A)	42°(P) 21-22 0 23° 80°	11-12 21-22 0 23° 80°	42°(P) 21-22 0 23° 80°	11-12 21-22 0 23° 80°	11-12 21-22 0 23° 80°
$m_{4} \sim 4 \sim 100$ NC + NC + NO	ZCKSD39H29 + ZCKD01	ZCKSD39H29 + ZCKD02	ZCKSD39H29 + ZCKD31	ZCKSD39H29 + ZCKD39	ZCKSD39H29 + ZCKD41	ZCKSD39H29 + ZCKD49	ZCKSD39H29 + ZCKD59
ରୁ ି ୁୁ ୁୁ Snap action ରୁ ି ୁୁ ୁୁ (XE3SP2141)	1,8 4,5(P) 1,3 4,5 1,3 4,4 1,3 4,4 1,3 4,4 1,3 4,4 1,3 4,4 1,3 4,4 1,3 4,4 1,4 4,5 1,4 4,5	3,1(A) 7,8(P) 31:32 31:32 31:32 13:14 0 1,5 mm	21-22 21-32 21-32 21-32 21-32 21-32 21-32 13-14 0 11° 80°	21-22 21-32	23° 58°(P) 23:32 31:32 31:32 31:32 31:32 13:14 0 11° 80°	23° 21-22 21-32 13-14 21-32 13-14 13-14 11° 80°	21-22 31-32 31-32 31-32 13-14 11° 80°
∾կ∾կ∹∣nċ+nc+no	ZCKSD37H29 + ZCKD01	ZCKSD37H29 + ZCKD02	ZCKSD37H29 + ZCKD31	ZCKSD37H29 + ZCKD39	ZCKSD37H29 + ZCKD41	ZCKSD37H29 + ZCKD49	ZCKSD37H29 + ZCKD59
Break before Break Break Break Break (XE3NP2141)	1,8 3,2(P) 31-32 13-14 0 3 5,5 mm	3,1(A) 5,6(P) 31.32 13-14 0 5,2 mm	23° 42°(P) 31.32 13.12 0 33° 80°	23° 21-22 31-32 13-14 0 33° 80°	23° 42°(P) 31-32 13-14 0 33° 80°	23° 21-22 31-32 13-14 0 33° 80°	23° 21-22 13-132 13-14 0 33° 80°
Weight (kg)	0.095	0.105	0.145	0.150	0.155	0.155	0.150
Contact operation	closed open		(A) = cam displace (P) = positive oper		⊖ NC contact wit	h positive opening	operation

References of variable composition switches (ZCKS bodies and ZCKD heads) with 1 Pg 13.5 cable entry For ZCKS bodies with 1 Pg 13.5 cable entry, delete H29 from the end of the reference. Example: ZCKS1H29 becomes ZCKS1.

Charac	teristics								
Switch act	uation	On end	By 30° cam					By any moving part	
Type of act	uation			or or					
Maximum actuation speed 0.5 m/s 1.5 m/s			1.5 m/s	.5 m/s 1 m/s					
Mechanica (in millions of cycles)	I durability (6) of operating	25	15	20					
Minimum	For tripping	15 N	12 N	0.15 N.m					
force or torque	For positive opening	45 N	36 N	0.3 N.m	-	0.3 N.m	-	-	
Cable entry 1 entry tapped M20 x 1.5 mm for			20 x 1.5 mm for ISC	SO cable gland, clamping capacity 7 to 13 mm					

(1) Form conforming to EN 50041, see page 25.

Sensors

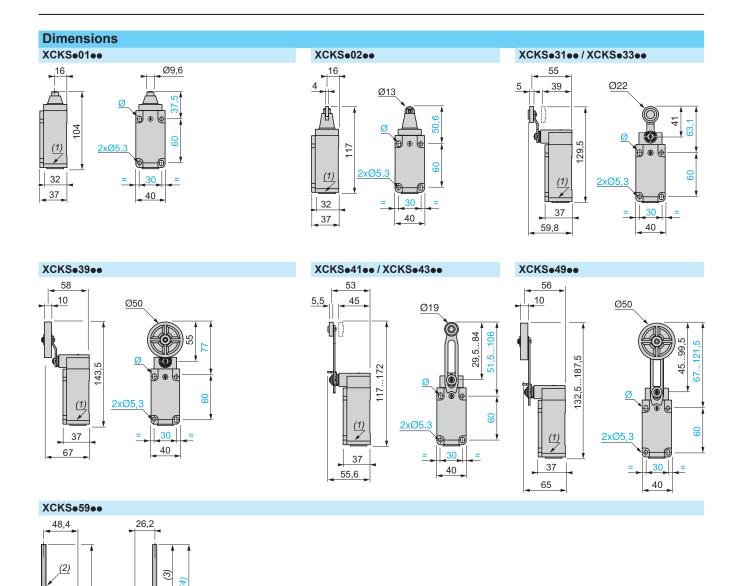
⁽²⁾ Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.
(3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.
(4) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.
(5) Value taken with actuation by moving part at 100 mm from the fixing.
(6) Limited to 15 million operating cycles for switches with contacts XE3•P.

Telemecanique

Dimensions

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Complete switches with 1 cable entry





<u>2xØ</u>5

Ø

(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 or 1/2" NPT cable gland.
(2) Ø 6 rode, lenght 200 mm.
(3) 190 max.

280

98.

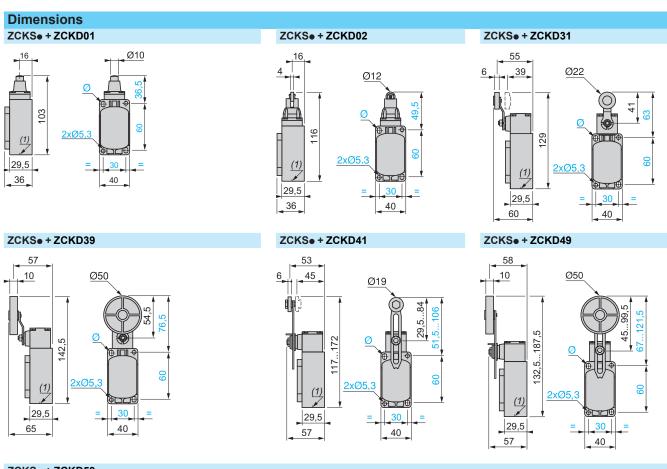
(1

(4) 212 max. Ø : 2 elongated holes 5.3 x 7.3 mm.

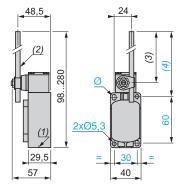
Dimensions

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches with 1 cable entry



ZCKSe + ZCKD59



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 or 1/2" NPT cable gland. (2) Ø 6 rode, lenght 200 mm.

(3) 190 max.

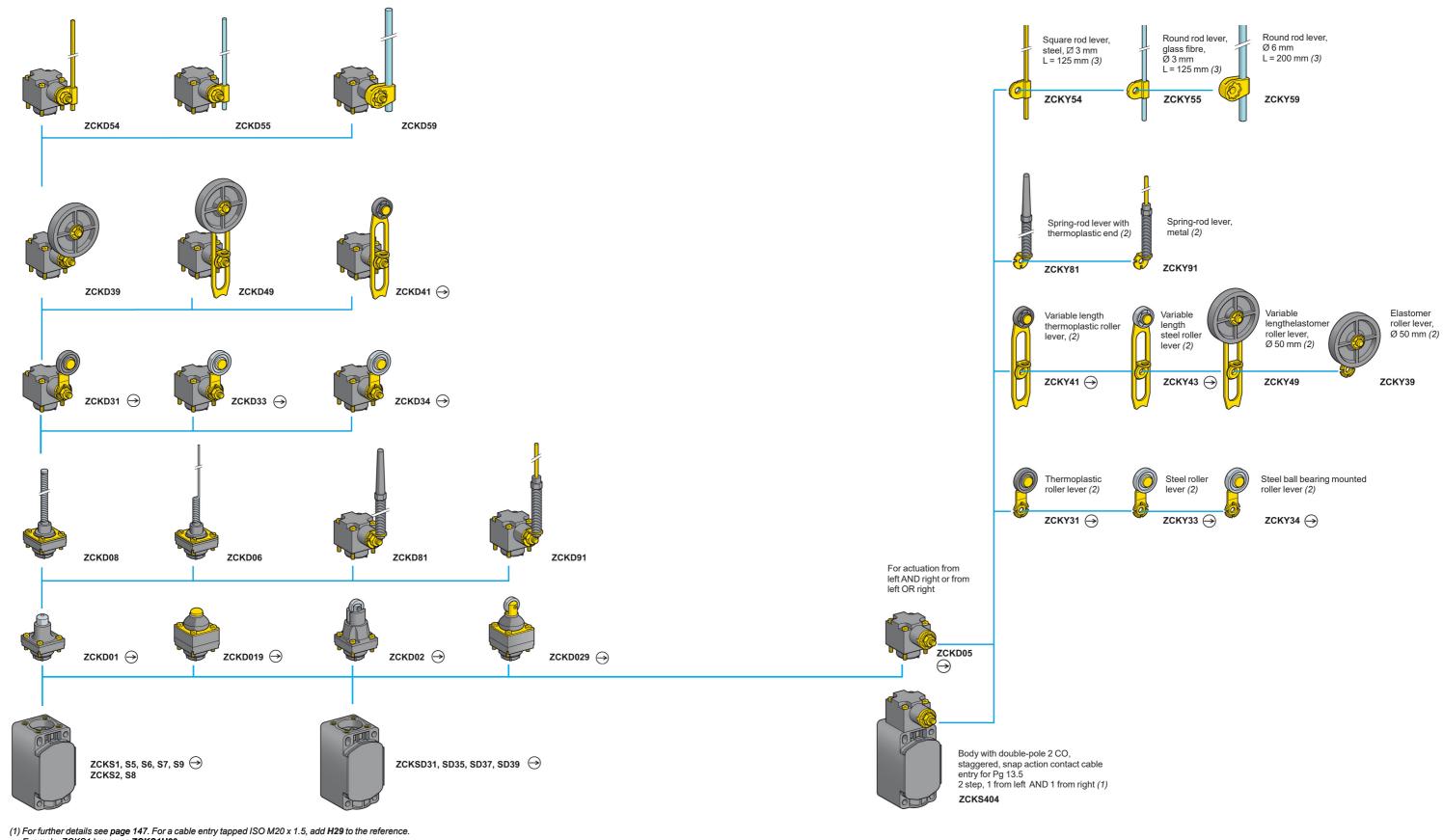
(4) 212 max. Ø : 2 elongated holes 5.3 x 7.3 mm.



Presentation

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition



Example: ZCKS1 becomes ZCKS1H29.

(2) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.
 (3) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.

Note: ZCKD heads can only be used with ZCKS bodies.

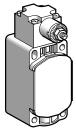
References

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches



Bodies with 2-pol	e contact					
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
1 step	NC + NO snap action	×−−−4	\ominus	Pg 13.5	ZCKS1	0.080
	(XE2SP2151)	52		ISO M20 x 1.5	ZCKS1H29	0.080
	2 CO simultaneous,	53 3 3	-	Pg 13.5	ZCKS2	0.080
	snap action (XESP3021)	12 13 14 12 12 14		ISO M20 x 1.5	ZCKS2H29	0.080
	NC + NO break before make,	√ 13 13	\ominus	Pg 13.5	ZCKS5	0.080
	slow break (XE2NP2151)	52 [7		ISO M20 x 1.5	ZCKS5H29	0.080
	NO + NC make before break,	5 2 4 4 5	\ominus	Pg 13.5	ZCKS6	0.080
	slow break (XE2NP2161)	4		ISO M20 x 1.5	ZCKS6H29	0.080
	NC + NC simultaneous,	۲ <u></u> ۲	Θ	Pg 13.5	ZCKS7	0.080
	slow break (XE2NP2141)	52 23		ISO M20 x 1.5	ZCKS7H29	0.080
	NO + NO simultaneous,	3 3	-	Pg 13.5	ZCKS8	0.080
	slow break (XE2NP2131)	57 [7		ISO M20 x 1.5	ZCKS8H29	0.080
	NC + NC snap action	F	\ominus	Pg 13.5	ZCKS9	0.080
	(XE2SP2141)	52 23		ISO M20 x 1.5	ZCKS9H29	0.080



ZCKS404

Bodies with double-pole contact and spring return rotary head

Without operatin	ng lever					
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
2 step 1 from left and	2 CO staggered snap action	<u>5</u> 33 3 3	-	Pg 13.5	ZCKS404	0.150
1 from right		$\begin{vmatrix} 25 \\ 24 \end{vmatrix} = \begin{vmatrix} 12 \\ 24 \end{vmatrix}$		ISO M20 x 1.5	ZCKS404H29	0.150

Bodies with 3-pol	e contact and 1 o	able entry				
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
-	NC + NO + NO snap action	[3] [3] [3] [3] [3] [3] [3] [3] [3] [3]	\ominus	Pg 13.5	ZCKSD31	0.080
	(XE3SP2151)	14 34 35		ISO M20 x 1.5	ZCKSD31H29	0.080
	NC + NC + NO snap action	[3] [3] [3] [3]	\ominus	Pg 13.5	ZCKSD39	0.080
	(XE3SP2141)	4 33 33		ISO M20 x 1.5	ZCKSD39H29	0.080
	NC + NC + NO break before make,	13 J3	\ominus	Pg 13.5	ZCKSD37	0.080
	slow break (XE3NP2141)	32 32		ISO M20 x 1.5	ZCKSD37H29	0.080
	NC + NO + NO break before make,	7-7-7	\ominus	Pg 13.5	ZCKSD35	0.080
	slow break (XE3NP2151)	14 34 14 34		ISO M20 x 1.5	ZCKSD35H29	0.080

(1) : NC contact with positive opening operation or head assuring positive opening operation.

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches



XE2SP21•1



XE2NP21•1



XESP3021



XE3•P21••



Contact blocks for ZCKSee bodies Type of contact Scheme For body Positive Reference Weight operation (1) kg 2-pole contact NC + NO ZCKS1 XE2SP2151 0.020 \ominus 13 21 snap action 4 22 NC + NO 0.020 ZCKS5 \ominus XE2NP2151 9 5 break before make, slow break 4 22 2 CO ZCKS2 XESP3021 0.045 _ 13 ÷ 23 2 simultaneous snap action 4 12 5 22 NO + NC XE2NP2161 0.020 ZCKS6 33 \ominus 5 make before break, slow break 52 4 XE2NP2141 0.020 NC + NC ZCKS7 5 7 \ominus simultaneous, slow break 22 9 XE2NP2131 NO + NO ZCKS8 0.020 _ 13 23 simultaneous, slow break 4 24 NC + NC ZCKS9 XE2SP2141 0.020 \ominus 5 17 snap action 9 22 3-pole contact NC + NO + NO ZCKSD31 XE3SP2151 0.035 \ominus 5 33 13 snap action 22 34 NC + NC + NO ZCKSD39 XE3SP2141 0.035 33 5 13 \ominus snap action 32 4 22 NC + NC + NO ZCKSD37 XE3NP2141 0.035 \ominus 13 5 33 break before make, slow break 33 22 4 NC + NO + NO ZCKSD35 XE3NP2151 0.035 \ominus 13 33 3 break before make, slow break 22 4 34

Accessories for ZCKSee and XCKSee								
Description	Minimum order quantity	Reference	Weight kg					
Adaptator for 1/2" NPT conduit (male Pg 13.5 / female 1/2" NPT)	10	DE9RA1212	0.035					
Adaptator for 1/2" NPT conduit (male M20 x 1.5 / female 1/2" NPT)	5	DE9RA2012	0.050					

(1) \ominus : NC contact with positive opening operation or sub-assembly assuring positive opening operation.

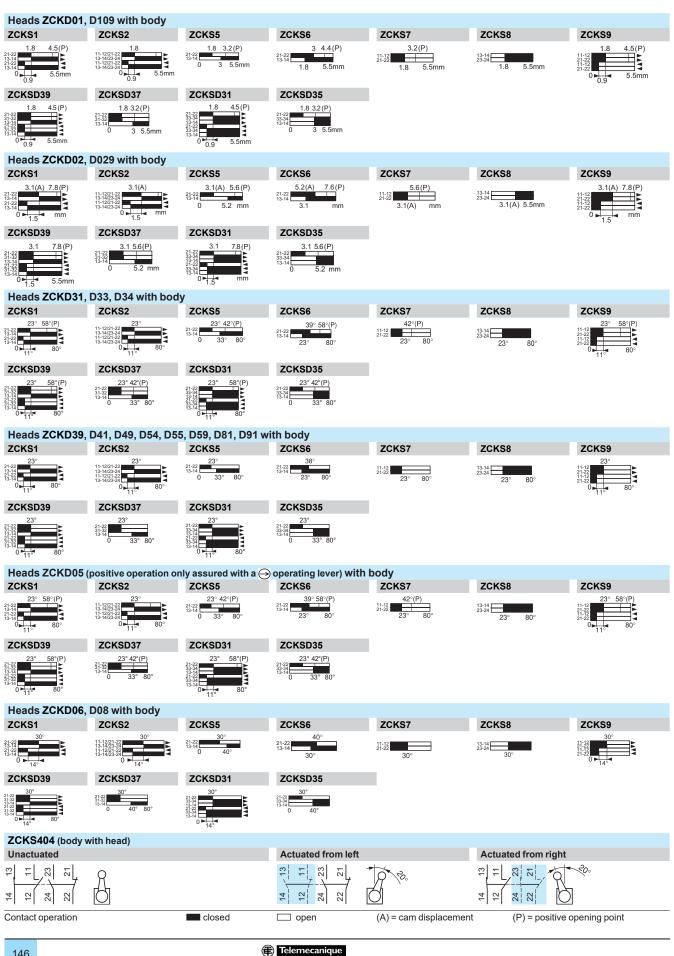
Other versions Gold flashed contacts.

Please consult our Customer Care Centre.

Operation

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches



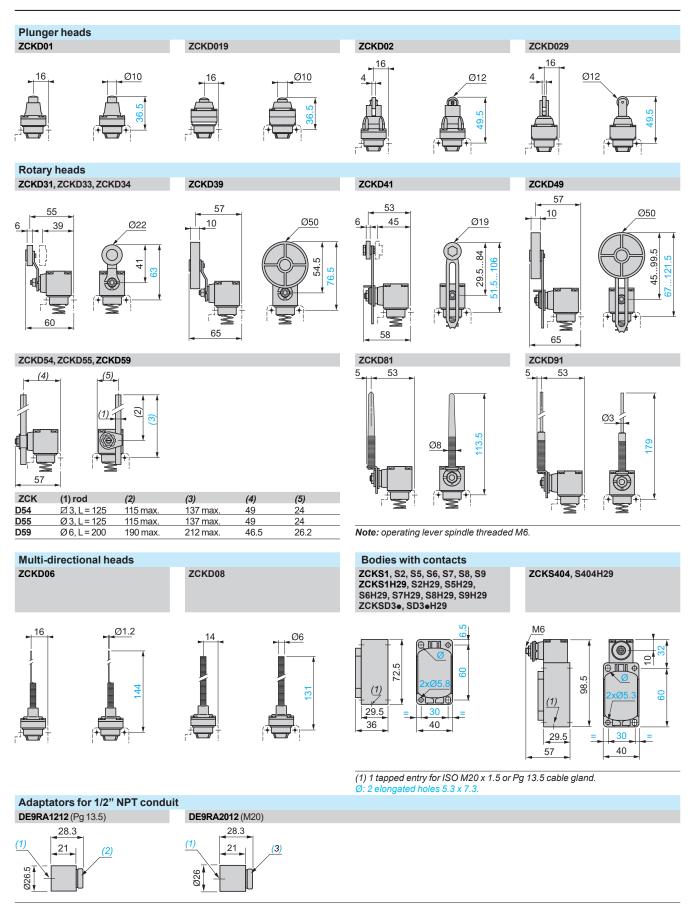
Sensors

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Dimensions

Limit switches

XC Standard range, format EN 50041 Plastic, double insulated, XCKS Variable composition switches



(1) Tapped entry for 1/2" NPT conduit.
(2) Pg 13.5 threaded sleeve.
(3) M20 x 1.5 threaded sleeve.



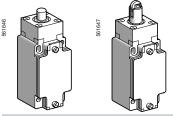
Presentation, general characteristics

Limit switches

XC Standard range Industrial format EN 50041 Metal, XCKJ Conforming to CENELEC EN 50041

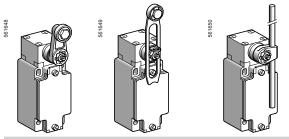


With head for linear movement (plunger)



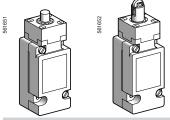
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□ With head for rotary movement (lever)



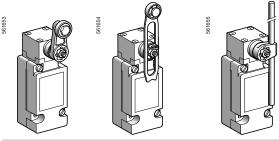
Page 150

□ With head for linear movement (plunger)



Page 152

With head for rotary movement (lever)



Page 152

Environment chara	Icteristics	
Conformity to standards	Products	C€, IEC 60947-5-1, EN 60947-5-1, UL 508, CSA C22-2 n° 14, EAC
	Machine assemblies	IEC 60204-1, EN 60204-1
Product certifications		UL, CSA, CCC, BV
Protective treatment	Version	Standard: "TC", special: "TH"
Ambient air temperature	For operation	- 25+ 70°C, special sub-assemblies for use at - 40°C or + 120°C
	For storage	- 40+ 70°C
Vibration resistance	Conforming to IEC 60068-2-6	25 gn (10500 Hz)
Shock resistance	Conforming to IEC 60068-2-27	50 gn (11 ms)
Electric shock protection		Class I conforming to IEC 61140 and NF C 20-030
Degree of protection		IP 66 conforming to IEC 60529; IK 07 conforming to IEC 62262
Repeat accuracy		0.01 mm on the tripping points, with 1 million operating cycles for head with end plunger
Cable entry or	Depending on model	Tapped entry for Pg 13.5 cable gland, tapped ISO M20 x 1.5 or tapped 1/2" NPT, or M12
connector		connector
Materials		Bodies and heads in Zamak

■ XCKJ plug-in body with 1 cable entry

> Elemecanique Sensors

General characteristics (continued)

Limit switches

XC Standard range Industrial format EN 50041 Metal, XCKJ Conforming to CENELEC EN 50041

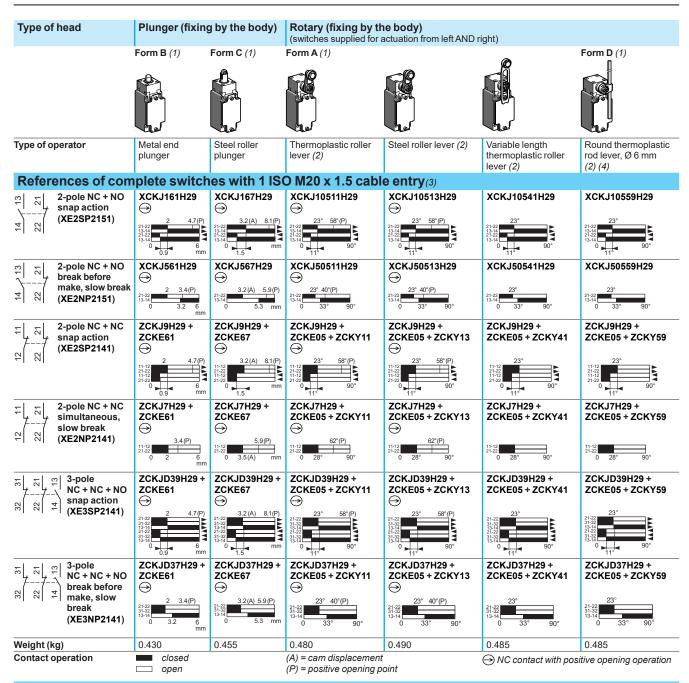
Contact block	charact	orietice											
					a 40 4	E. A 200 /		V/ 1	(2.4), the $= 40.4$				
Rated operational characteristics	_	E2●P			DC-1	3; Q300	(Ue = 250	V, le =	3 A); Ithe = 10 A 0.27 A), conform	<u> </u>	947-5-1 Ap	pendix A	, EN 60947-5-1
	х	Œ3●P				3; R300			= 1.5 A); Ithe = 6 = 0.1 A), confor		60947-5-1	Append	ix A,
Rated insulation volt	tage X	E2●P							conforming to I 8, CSA C22-2 n				
	x	Œ3●P							conforming to I 8, CSA C22-2 n				
Rated impulse withs	tand X	E2•P			U imp =	6 kV co	nformina	to IFC	60947-1, IEC 6	0664			
voltage		E3•P					<u> </u>		60947-1, IEC 6				
Positive operation (d	lependina on	model)			NC cont	acts with	positive o	pening	operation confo	mina to IEC 6	60947-5-1/	Appendix	K, EN 60947-5-1
Resistance across te		/			_				55-7 category 3	-			,
Short-circuit protect		E2•P			_		ise type g		<u> </u>				
·		Œ3●P			_		se type gC						
Connection	Х	E2SP21e1			Clampir	na capao	city. min:1	x 0.34	mm², max: 2 x	1.5 mm ²			
(screw clamp terminal	. –	E2NP2101							mm^2 , max: 2 x 2				
, i	· · ·	CKJ plug-ir		SP20e1	_	<u> </u>			5 mm², max: 2 x 2				
XE3NP and XE3SP					Clampir	ng capao	city, min: ²	1 x 0.3	4 mm², max: 1 x	1 mm ² or 2 x	¢ 0.75 mm	2	
Minimum actuation speed							d XE3SP						
							d XE3NP						
Electrical durability			■ Utilis ■ Maxi	ation ca	tegories A erating ra	AC-15	1 Appendix C and DC-13 00 operating cyo	cles/hour					
	XE2SP21	1. XE2SP2	141		XE2NP					XCKJ pl	ug-in, XES	SP20e1	
AC supply 50/60 Hz \sim	5			Ithe	⁵ 4 ∓		<u> </u>		H Ithe	5 4 🎞			Ithe
.m inductive circuit	0.1 0.5	0 V 400 V 1 2	24 V 48 V 3 4 5 Cur	10 rent in A	3 2 1 0.5 0.5 0.5		230 V	12/24 10 V 3 4 5 Cl	10 urrent in A	Willious of oberrating cycles	230 V	48 V	2/24 V 110 V 4 5 10 Current in A
DC supply	Power broke	en in W for 5	5 million op	perating		roken in	W for 5 m	hillion o	perating		ken in W1	or 5 milli	on operating
	cycles. Voltage V	24	18	120	cycles.	v	24 48	2 11	20	cycles.	V 2	1 19	120
	m W	10	48 7	4	Voltage	w	24 48 13 9	3 12 7		Voltage		4 48 0 7	120 4
		_							e values chow			0 /	4
	XE3SPeee		л, NC а				usiy loade	eu lo tr	ne values showr	with revers	e polarity.		
	XE35Peee	•			XE3NP	••••							
AC supply 50/60 Hz ~ m inductive circuit			1th 24V 48V 3 4 5 Cur		54 3 2 0.5 0.1 0.5		230 1	12/24, 10 V 3 4 5	he 48 V 10 urrent in A				
DC supply	Power broke cycles.	en in W for 5	5 million op	perating	Power bi cycles.	Power broken in W for 5 million operating cycles.				-			
	Voltage V	24 3	48 2	120	Voltage	V W	24 48 4 3	3 12 2	20	-			
	···- VV	5	4	1			- 3	2					



References, characteristics

Limit switches

XC Standard range Industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete fixed body switches with 1 cable entry



References of complete switches with 1 Pg 13.5 cable entry (2)

For complete switches with entry for Pg 13.5 cable gland, delete H29 from the end of the reference. Example: XCKJ161H29 becomes XCKJ161.

References of complete switches with 1 entry for 1/2" NPT conduit (2)

For complete switches with entry for 1/2" NPT (USAS B2-1) conduit, replace H29 at the end of the reference by H7. Example: XCKJ161H29 becomes XCKJ161H7.

(1) Form conforming to EN 50041, see page 25.

- (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
- (3) Switches with gold contacts or eyelet type connections: please consult our Customer Care Centre.

(4) Value taken with actuation by moving part at 100 mm from the fixing.

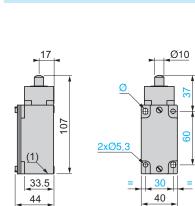


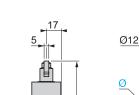
XC Standard range Industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete fixed body switches with 1 cable entry

Charac	Characteristics								
Switch actu	uation	On end	By 30° cam	By any moving part					
Type of actuation									
Maximum a	Maximum actuation speed 0.5 m/s		1 m/s	1.5 m/s					
	echanical durability (1) 30 25 30 millions of operating cles) 30 25 30		30						
Minimum	For tripping	20 N	16 N	0.25 N.m					
force or torque	For positive opening	50 N	40 N	0.50 N.m –					
Cable entry	(3)	1 entry tapped M2	20 x 1.5 mm for ISC	D cable gland, clamping capacity 9 to 12 mm					

(1) Limited to 15 million operating cycles for switches with contacts XE3•P.

Dimensions XCKJe61H29 ZCKJe + ZCKE61





120

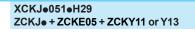
(1)

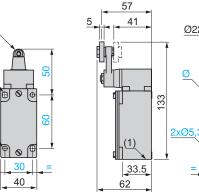
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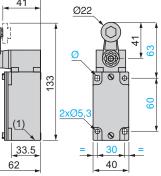
44

XCKJe67H29

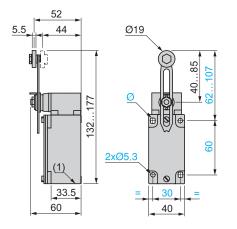
ZCKJe + ZCKE67







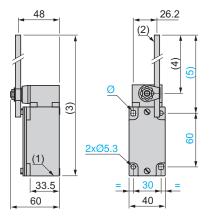
XCKJ•0541H29 ZCKJe + ZCKE05 + ZCKY41



XCKJe0559H29 ZCKJe + ZCKE05 + ZCKY59

<u>2xØ5.3</u>

Ð,



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or tapped 1/2" NPT.

(2) Ø 6 rod, length 200 mm.

(3) 282 max. (4) 190 max.

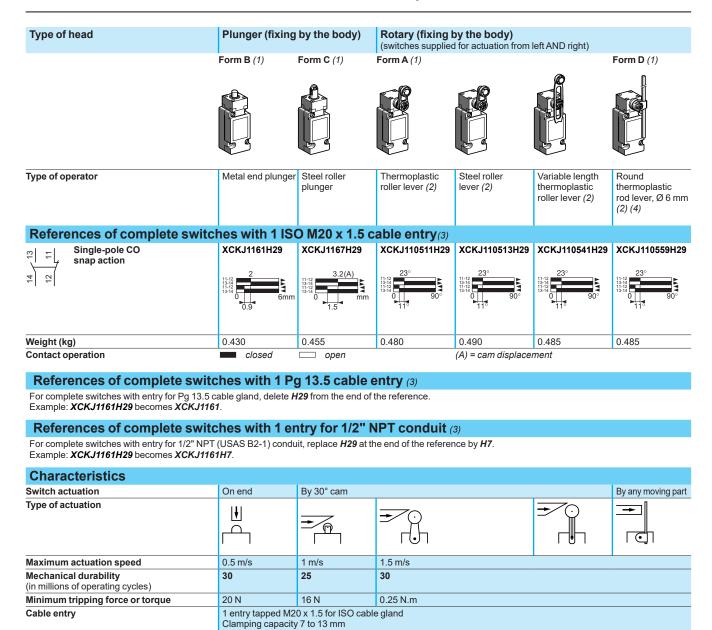
(5) 212 max. Ø: 2 elongated holes Ø 5.3 x 7.3.



References, characteristics

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, plug-in body With 1 cable entry



(1) Form conforming to EN 50041, see page 25.

(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.

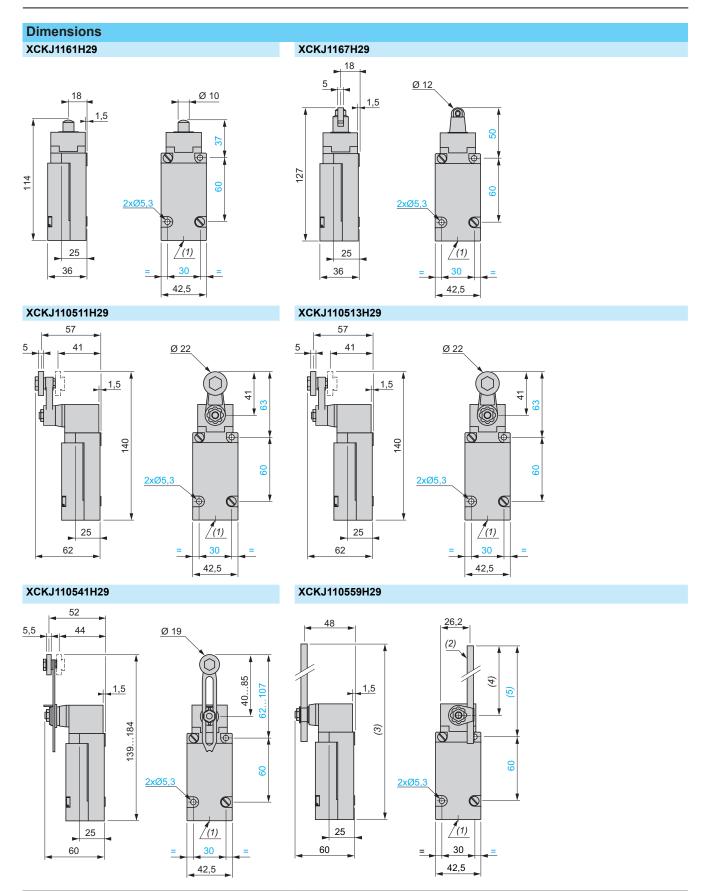
(3) Switches with gold contacts: please consult our Customer Care Centre.

(4) Value taken with actuation by moving part at 100 mm from the fixing.

Dimensions

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, plug-in body With 1 cable entry



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or for 1/2" NPT conduit.

- (2) Ø 6 rod, length 200 mm.
- (3) 289 max.
- (3) 209 max. (4) 190 max.

(5) 212 max



References, characteristics

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, fixed body M12 connector

Type of head		Plunger (fixing	by the body)	Rotary (fixing l					
		Form B (1)	Form C (1)	Form A (1)	for actuation from	IEITAND right)	Form D (1)		
Type of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever (2)	Steel roller lever (2)	Variable length thermoplastic roller lever (2)	Round thermoplastic rod lever, Ø 6 mm <i>(2) (3)</i>		
References (4))								
ল্ল ন্ন 2-pole NC + NO ল্ল ন্ন snap action (XE2SP2151) ∖/		XCKJ161D ⊖	XCKJ167D ⊖	XCKJ10511D ⊖	XCKJ10513D ⊖	XCKJ10541D	XCKJ10559D		
22		2 4.7(P) 13-14 0 6mm 0.9	3.2(A) 8.1(P) 3.44 3.42 13.44 0 mm 1.5	23° 58°(P) 13-14 21-22 13-14 90°	23° 58°(P) 13-14 21-22 13-14 90° 11°	23° 13-14 21-22 13-14 13-14 90°	21-22 13-14 13-14 13-14 13-14 13-14 90°		
Weight (kg)		0.430	0.455	0.480	0.490	0.485	0.485		
Contact operation		closed closed		(A) = cam displacement (P) = positive opening point					
Characteristic	cs								
Switch actuation		On end	By 30° cam				By any moving part		
Type of actuation				<u>⇒~</u> 0 г01			→ IC]		
Maximum actuation		0.5 m/s	1 m/s	1.5 m/s					
Mechanical durabilit (in millions of operation		30	25	30					
Minimum force or	For tripping	20 N	16 N	0.25 N.m					
torque	For positive opening	50 N	40 N	0.50 N.m		-	-		
Connection M12 connector, Ui = 60 V, Ie = 4 A (see suitable pre-wired female connectors below).									

(1) For comparing to Explore 20.
 (2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
 (3) Value taken with actuation by moving part at 100 mm from the fixing.
 (4) Switches with gold contacts: please consult our Customer Care Centre.

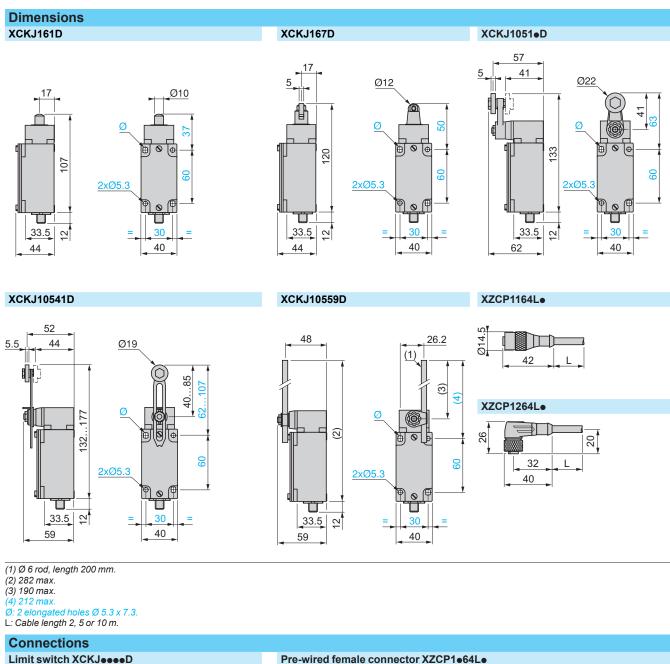
References of suitable pre-wired female connectors

References of suite		ileu lemaie connectors				
Type of connector		M12 straight, 5-pin, 4 A/24 V max.	M12 elbowed, 5-pin, 4 A/24 V max.			
With cable, Ø 5.8 mm (4 x 0.34 mm ² + 1 x 0.5 mm ²)	L=2 m	XZCP1164L2	XZCP1264L2			
	L=5 m	XZCP1164L5	XZCP1264L5			
	L = 10 m	XZCP1164L10	XZCP1264L10			
Weight (kg)	L = 2 m	0.115				
	L = 5 m	0.270				
	L = 10 m	0.520				

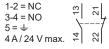
Dimensions, connections

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, fixed body M12 connector











1 = brown

- 2 = white 3 = blue
- 4 = black
- 5 = 🛓 yellow/green

References, characteristics

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, fixed body 7/8"-16UN connector

Type of head		Plunger (fixing	by the body)	Rotary (fixing I (switches supplied	by the body) I for actuation from	left AND right)	
		Form B (1)	Form C (1)	Form A (1)			Form D (1)
Type of operator		Metal end plunger	Steel roller plunger	Thermoplastic roller lever (2)	Steel roller lever (2)	Variable length thermoplastic roller lever (2)	Round thermoplastic rod lever, Ø 6 mn (2) (3)
References (4	<i>t</i>)						
ຕ <mark>∵. 2-pole N</mark>		XCKJ161A ⊖	XCKJ167A ⊖	XCKJ10511A ⊖	XCKJ10513A ⊖	XCKJ10541A	XCKJ10559A
<mark> 2 </mark>		2 4.7(P) 21-22 21-22 21-22 13-14 0 6 mm 0.9	3.2(A) 8.1(P) 13-14 0 1.5 mm	23° 58°(P) 21-22 21-22 21-22 13-14 0 90° 11°	23° 58°(P) 13-14 13-14 11° 11°	21-22 13-14 12-22 13-14 13-14 11° 90°	21-22 13-24 13-14 13-14 0 11° 90°
Weight (kg)		0.430	0.455	0.480	0.490	0.485	0.485
Contact operation		closed open		(A) = cam displace (P) = positive open		→ NC contact with operation	h positive opening
Characteristi	cs						
Switch actuation		On end	By 30° cam				By any moving par
Type of actuation		l ⊎ r≏n					
				4 5			
Maximum actuation	speed	0.5 m/s	1 m/s	1.5 m/s			
Maximum actuation Mechanical durabili (in millions of operatin	ty	0.5 m/s 30	1 m/s 25	30			
Mechanical durabili	ty					-	-

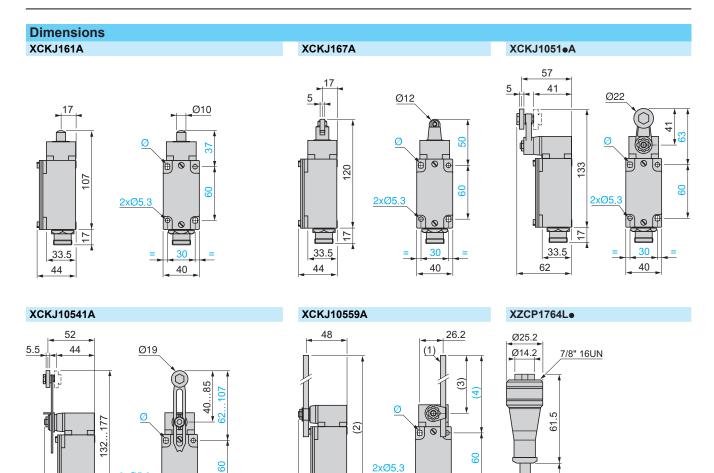
(1) For community to Evolution to the page 20.
(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
(3) Value taken with actuation by moving part at 100 mm from the fixing.
(4) Switches with gold contacts: please consult our Customer Care Centre.

References of suitable pre-wired female connectors							
Type of connector		7/8"-16UN straight, 5-pin, 4 A/250 V max.					
With cable, Ø 5.9 mm (5 x 0.34 mm ²)	L = 2 m	XZCP1764L2					
	L = 5 m	XZCP1764L5					
	L = 10 m	XZCP1764L10					
Weight (kg)	L=2 m	0.185					
	L = 5 m	0.460					
	L = 10 m	0.900					

Dimensions, connections

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Complete switches, fixed body 7/8"-16UN connector



17

40

Pre-wired female connector XZCP1764Le

H

59

33.5

(1) Ø 6 rod, length 200 mm.

H -

59

33.5

17

2xØ5.3

30

40

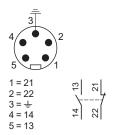
(2) 282 max.

(3) 190 max.

(4) 212 max. Ø: 2 elongated holes Ø 5.3 x 7.3. L: Cable length 2, 5 or 10 m.

Connections

Limit switch XCKJ





1 = black

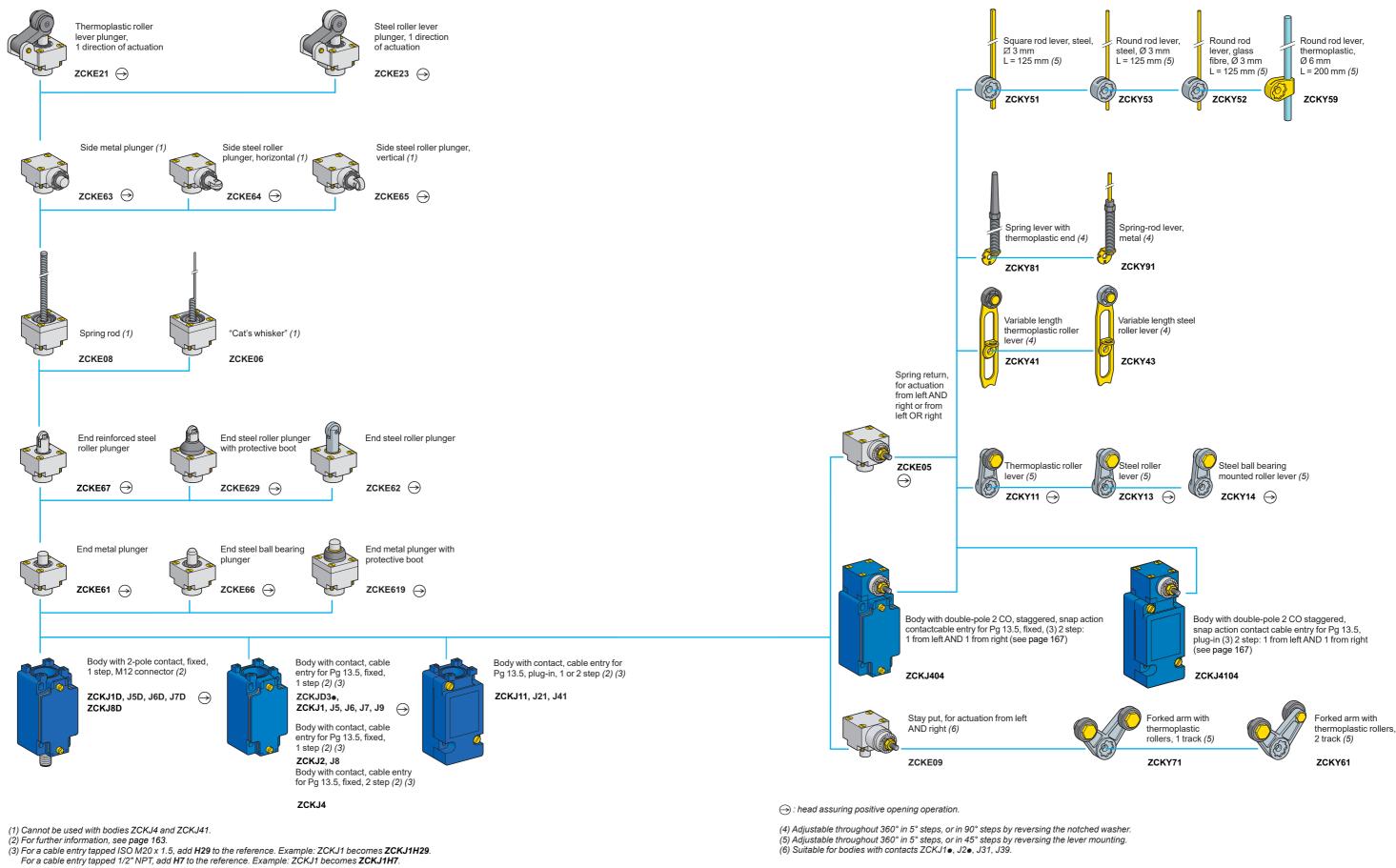
- 2 = blue 3 = yellow/green \pm
- 4 = brown
- 5 = white

(E) Telemecanique Sensors

Presentation

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Variable composition: standard bodies



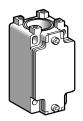




Telemecanique

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies: standard bodies



ZCKJ•

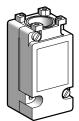
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
l step	1 NC + 1 NO	21	Θ	Pg 13.5	ZCKJ1	0.310
	snap action	←	0	ISO M20 x 1.5	ZCKJ1H29	0.310
	(XE2SP2151)	32 [14		1/2" NPT	ZCKJ1H7	0.310
	2 C O	21 13 23 23	_	Pg 13.5	ZCKJ2	0.310
	simultaneous,	\rightarrow \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow	+	ISO M20 x 1.5	ZCKJ2H29	0.310
	snap action (XESP2021)	12 12 14 12 12 14		1/2" NPT	ZCKJ2H7	0.310
	1 NC + 1 NO	21	\ominus	Pg 13.5	ZCKJ5	0.310
	break before make,	<u>↓</u>	<u> </u>	ISO M20 x 1.5	ZCKJ5H29	0.310
	slow break (XE2NP2151)	52 [7		1/2" NPT	ZCKJ5H7	0.310
	1 NO + 1 NC	, ⁵⁷ ²⁷ ,	\ominus	Pg 13.5	ZCKJ6	0.310
	make before break,			ISO M20 x 1.5	ZCKJ6H29	0.310
	slow break (XE2NP2161)	4 33		1/2" NPT	ZCKJ6H7	0.310
	2 NC	<u>7</u>	\ominus	Pg 13.5	ZCKJ7	0.310
	simultaneous,			ISO M20 x 1.5	ZCKJ7H29	0.310
	slow break (XE2NP2141)	52 33		1/2" NPT	ZCKJ7H7	0.310
	2 NO) 3 3	-	Pg 13.5	ZCKJ8	0.310
	simultaneous,			ISO M20 x 1.5	ZCKJ8H29	0.310
	slow break (XE2NP2131)	5 4		1/2" NPT	ZCKJ8H7	0.310
	2 NC	21	\ominus	Pg 13.5	ZCKJ9	0.310
	snap action	~L ∾L 77	0	ISO M20 x 1.5	ZCKJ9H29	0.310
	(XE2SP2141)	22		1/2" NPT	ZCKJ9H7	0.310
2 step	2 CO	21 13 23 23	-	Pg 13.5	ZCKJ4	0.310
	staggered			ISO M20 x 1.5	ZCKJ4H29	0.310
	snap action (XESP2031)	5 5 5 5		1/2" NPT	ZCKJ4H7	0.310

Fixed bodies with 3-pole contact						
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
 1 NC + 2 NO snap action (XE3SP2151) 	21	\ominus	Pg 13.5	ZCKJD31	0.310	
	7	-	ISO M20 x 1.5	ZCKJD31H29	0.310	
	(AL35F2131)	²² 14		1/2" NPT	ZCKJD31H7	0.310
	2 NC + 1 NO	13 31	\ominus	Pg 13.5	ZCKJD39	0.310
snap action	7 7	0	ISO M20 x 1.5	ZCKJD39H29	0.310	
	(XE3SP2141)	32 14 22 32		1/2" NPT	ZCKJD39H7	0.310
	2 NC + 1 NO	14 22 31 14 22 23	\ominus	Pg 13.5	ZCKJD37	0.310
	break before make,			ISO M20 x 1.5	ZCKJD37H29	0.310
slow break (XE3NP2141)				1/2" NPT	ZCKJD37H7	0.310
	1 NC + 2 NO	21	\ominus	Pg 13.5	ZCKJD35	0.310
break before make, slow break (XE3NP2151)	,	7	0	ISO M20 x 1.5	ZCKJD35H29	0.310
	22 34 14 14		1/2" NPT	ZCKJD35H7	0.310	

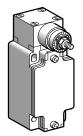
(1) \bigoplus : NC contact with positive opening operation.

Limit switches

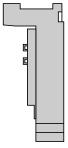
XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies: standard bodies



ZCKJ•1



ZCKJ404



ZCKJ0•

Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
step Single-pole 1 CO	1 [-	Pg 13.5	ZCKJ11	0.300	
	snap action			ISO M20 x 1.5	ZCKJ11H29	0.300
Double-pole 2 CO simultaneous, snap action	4 2		1/2" NPT	ZCKJ11H7	0.300	
		pouble-pole 2 CO $\overset{\infty}{\leftarrow}$ $\overset{-}{\leftarrow}$ $\overset{\infty}{\leftarrow}$ $\overset{\infty}{\leftarrow}$	_	Pg 13.5	ZCKJ21	0.300
	,	\rightarrow 7- \rightarrow	7	ISO M20 x 1.5	ZCKJ21H29	0.300
	shap action	22 24 12 4	1/2" NPT	ZCKJ21H7	0.300	
2 step Double-pole 2 CO staggered, snap action	- 53 11 3	-	Pg 13.5	ZCKJ41	0.300	
		gered, $\sqrt{-\frac{1}{2}}$	7	ISO M20 x 1.5	ZCKJ41H29	0.300
	shap action			1/2" NPT	ZCKJ41H7	0.300

Bodies with contact, with rotary head (without operating lever)

Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
Fixed body						
2 step	Double-pole 2 CO	21 13 23 11	-	Pg 13.5	ZCKJ404	0.455
1 from left AND 1 from right (see page 167)	staggered, 167) snap action			ISO M20 x 1.5	ZCKJ404H29	0.455
r nonright (see page 107)	Shap dollon	14 24 22 22		1/2" NPT	ZCKJ404H7	0.455
Plug-in body						
2 step	Double-pole 2 CO	23 11 13	-	Pg 13.5	ZCKJ4104	0.465
1 from left AND staggered, 1 from right (see page 167) snap action	00 ,			ISO M20 x 1.5	ZCKJ4104H29	0.465
	shap action	14 24 22		1/2" NPT	ZCKJ4104H7	0.465

Plug-in housing only				
Description	For use with	Contacts	Reference	Weight kg
Single-pole 1 CO with positive opening operation	ZCKJ11	Silver	ZCKJ01	0.150
Double-pole 2 CO with positive opening operation	ZCKJ21	Silver	ZCKJ02	0.160
Double-pole 2 CO staggered	ZCKJ41	Silver	ZCKJ04	0.160

(1) \bigcirc : NC contact with positive opening operation.



Limit switches

Scheme

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body. Adaptable sub-assemblies: bodies with indicator light module

Positive

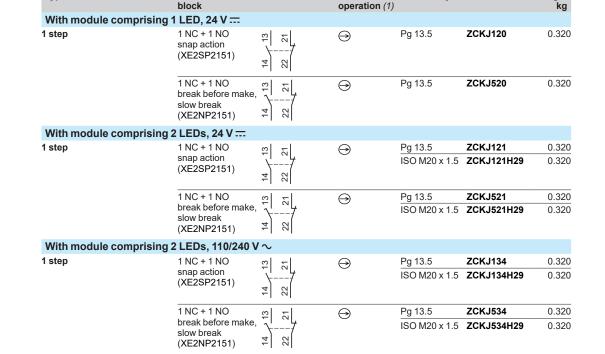
Cable entry

Reference

Weight



ZCKJ



ZCKJ1...

Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
With module co	mprising 2 LEDs, 24 V					
1 step	CO snap action	14 13	-	Pg 13.5 ISO M20 x 1.5	ZCKJ1121 ZCKJ1121H29	0.340 0.340
With module co	mprising 2 LEDs, 110/240	$V \sim$				
1 step	CO snap action	12 13	-	Pg 13.5 ISO M20 x 1.5	ZCKJ1134 ZCKJ1134H29	0.340 0.340

(1) \bigcirc : NC contact with positive opening operation.

Fixed bodies with 2-pole contact

Туре

With contact

Indicator light module characteristics				
Type of indicator	1 LED or 2 LEDs	2 LEDs		
Rated insulation voltage	50 V, conforming to IEC 60947-1	250 V \sim , conforming to IEC 60947-1		
Current consumption	7 mA per LED	9 mA per LED		
Rated operational voltage	24 V	110/240 V \sim		
Voltage limits	2030 V (including ripple)	95264 V \sim		
Service life	100 000 hours	100 000 hours		
Reverse polarity protection	Yes	-		

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body. Adaptable sub-assemblies: bodies with M12 connector



ZCKJ•D

Fixed bodies with	2-pole contact				
Туре	With contact block	Scheme	Positive operation (1)	Reference	Weight kg
1 step	1 NC + 1 NO snap action (XE2SP2151)	22 - 21 22 - 21	\ominus	ZCKJ1D	0.320
	1 NC + 1 NO break before make, slow break (XE2NP2151)	14 13 22 21	Ð	ZCKJ5D	0.320
	1 NO + 1 NC make before break, slow break (XE2NP2161)	22 14 13 13 13	\ominus	ZCKJ6D	0.320
	2 NC simultaneous, slow break (XE2NP2141)	22 22	\ominus	ZCKJ7D	0.320
	2 NO simultaneous, slow break (XE2NP2131)	24 24 23	-	ZCKJ8D	0.320

Female pre-wired connectors			
Description	Cable length	Reference	Weight kg
Female pre-wired connectors, M12, straight Ø 5,0 mm cable Conductor c.s.a: 5 x 0.34 mm ² Nominal current : 4 A Nominal voltage: ~ 30 V, 36 V	1 m	XZCP1164L2	0.115
	5 m	XZCP1164L5	0.270
	10 m	XZCP1164L10	0.520

XZCP1164L•

(1) NC contact with positive opening operation.

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies: contact blocks



XE2SP21•1





XESP20•1



XE3•P21•1

Contact blocks					
Type of contact	Scheme	For bodies	Positive operation (1)	Reference	Weight kg
2-pole contact					
1 NC + 1 NO snap action	22	ZCKJ1 ZCKJ1D	\ominus	XE2SP2151	0.020
1 NC + 1 NO break before make, slow break	22	ZCKJ5 ZCKJ5D	Θ	XE2NP2151	0.020
2 CO simultaneous snap action	14 13 12 11 22 23 21 23	ZCKJ2	_	XESP2021	0.045
2 CO staggered, snap action	14 13 24 23 22 21 23 21 23	ZCKJ4	_	XESP2031	0.045
1 NO + 1 NC make before break, slow break	22 21	ZCKJ6 ZCKJ6D	\ominus	XE2NP2161	0.020
2 NC simultaneous, slow break	22 21	ZCKJ7 ZCKJ7D	\ominus	XE2NP2141	0.020
2 NO simultaneous, slow break	24 13 24 23	ZCKJ8 ZCKJ8D	_	XE2NP2131	0.020
2 NC snap action	22	ZCKJ9	\ominus	XE2SP2141	0.020
3-pole contact					
1 NC + 2 NO snap action	22 34	ZCKJD31	\ominus	XE3SP2151	0.035
2 NC + 1 NO snap action	32 32 14 14 13	ZCKJD39	\ominus	XE3SP2141	0.035
2 NC + 1 NO break before make, slow break	14 14 13 13 13 13	ZCKJD37	\ominus	XE3NP2141	0.035
1 NC + 2 NO break before make, slow break	22 34 14 1 13 13	ZCKJD35	Θ	XE3NP2151	0.035

(1) \bigoplus : NC contact with positive opening operation.



Limit switches

Covers + indicator light module

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies: add-ons

00	
[] ZCKZ0●●	



For use with	Number and type of	findicators Voltage	Reference	Weight kg
Fixed body	1 LED	24 V	ZCKZ020	0.060
	2 LEDs	24 V	ZCKZ021	0.060
	2 LEDs	110/240 V \sim	ZCKZ034	0.060
Plug-in body	2 LEDs	24 V	ZCKJ0121	0.200
	2 LEDs	110/240 V \sim	ZCKJ0134	0.200

ZCKJ01••



ZCKJ90•



For use with	Number and type o	of indicators Voltage	Reference	Weight kg
ixed body	1 LED	24 V	ZCKJ902	0.030
	2 LEDs	24 V	ZCKJ906	0.030
	2 LEDs	110/240 V \sim	ZCKJ904	0.030

For use with	istor for machine diagnostics Resistor value	Reference	Weight kg
Fixed body (ZCKJ1 only)	15 kΩ, 1/4 W	ZCKJ82A	0.030
Other versions	Covers + indicator light module for oth Please consult our Customer Care Ce		



Operation

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies

	I, ZCKE619, ZCKE		701/10	701/15	701/10	70// 10
2 4.7(P)	ZCKJ2•	2 3.4(P)	3.2 4.6(P)	ZCKJ7 • 3.4(P)		ZCKJ9 2 4.7(P)
6mm	11-1221-22 13-1422-24 11-1221-22 13-14/23-24 0 6mr 0.9	21-22 13-14 0 3.2 6mm	21-22 13-14 2 6mm	11-12 21-22 2 6mm	13-14 23-24 2 6mm	11:12 21:22 21:22 21:22 21:22 0 0 0 0.9 6mm
2 4.7(P)	ZCKJD37 2 3.4 (P)	2 4.7(P)	ZCKJD35 2 3.4 (P) 3.34 0 3.2 6mm			
0.9 6mm	0 3.2 6mm	21-22 13-14 23-32 13-14 0	¹³⁻¹⁴ 3.2 6mm			
ead ZCKE63 KJ1•	ZCKJ2•	ZCKJ5•	ZCKJ6	ZCKJ7	ZCKJ8	ZCKJ9
1.5 4(P) 5.5mm	1.5 13-14/23-24 11-12/21-22 13-14/23-24 11-12/21-22 13-14/23-24 0 0.9 5.5mn	1.5 2.9(P) 13-14 0 2.7 5.5mm	2.7 4.1(P) 13-14 0 1.5 5.5mm	2.9(P) 11-12 11-22 0 1.5 5.5mm	¹³⁻¹⁴ 23-24 0 1.5 5.5 mm	1.5 4(P) 1.5 4(P) 1.12
KJD39 1.5 4(P)	ZCKJD37 15 2.9(P)	ZCKJD31 1.5 4(P)	ZCKJD35 15 2.9(P)			
5.5mm	²¹⁻²² ³¹⁻³² ¹³⁻¹⁴ 0 2.7 5.5mm	21-22 19-24 19-35 19-34	21.22 33.24 13.44 0 2.7 5.5mm			
ads ZCKE64 KJ1∙	4, ZCKE65 with bo ZCKJ2●		ZCKJ6	ZCKJ7	ZCKJ8	ZCKJ9
2.6(A) 6.4(P) mm	2.6(A) 13-1422-24 13-1422-24 13-2423-24 13-2423-24 0 1.5 mm	2.6(A) 4.7(P) 13-14 0 4.6 mm	3.7 5.8(P) ²¹⁻²² ¹³⁻¹⁴ 0 2.6(A) mm	4.7(P) 21-22 0 2.6(A) mm	13-14 23-24 0 2.6 (A) mm	2.6(A) 6.4(P) 21-22 21-22 21-22 0 1.5 mm
KJD39 2.6(A) 6.4(P)	ZCKJD37	ZCKJD31 2.6(A) 6.4(P)	2CKJD35 2.6(A) 4.7(P)			
1.5	21-22 313-14 0 4.6 mm	21-22 949-14 21-22 13-14 0 1.5	21-22 33-34 13-14 0 4.6 mm			
ads ZCKE67 KJ1●	7, ZCKE629 with b ZCKJ2•		ZCKJ6	ZCKJ7	ZCKJ8	ZCKJ9
3.2(A) 8.1(P)	3.2(A) 11-12/21-22 13-14/23-24 13-15	3.2(A) 5.9(P) ²¹⁻²² ¹³⁻¹⁴ 0 5.3 mm	5.3(A) 8(P) ²¹⁻²² ¹³⁻¹⁴ 3.2 (A) mm	5.9(P) 11-12 21-22 3.2(A) mm	13-14 23-24 3.2(A) mm	3.2(A) 8.1(P) 21-22 21-22 21-22 21-22 0 1.5 mm
KJD39 3.2 8.1(P)	ZCKJD37 3.2 5.9(P)	ZCKJD31 3.2(A) 8.1(P)	ZCKJD35 3.2 (A) 5.9 (P)			
mm 1.5	31-32 13-14 0 5.3 mm	1334 21-22 13-14 13-14 0 ► 1.5 mm	13-14 0 5.3 mm			
ads ZCKE21 KJ1•	I, ZCKE23 with bo ZCKJ2•	dy ZCKJ5•	ZCKJ6	ZCKJ7	ZCKJ8	ZCKJ9
5(A) 11.5(P)	5(A) 11-12/21-22 13-14/23-24 11-12/21-22 13-14/23-24 0 2.2 mn	5(A) 8.5(P) 21-22 13-14 0 8 mm	8. (A) 11.5(P) 13-14 0 5(A) mm	8.5(P) 21-22 5(A) mm	13-14 23-24 0 5(A) mm	5(A) 11.5(P) 21-22 21-22 21-22 0 2.2 mm
KJD39 5(A) 11.5(P)	ZCKJD37 5(A) 8.5(P)	ZCKJD31	ZCKJD35 5(A) 8.5(P)			
2.2 mm	21-22 31-32 13-14 0 8 mm	21-22 31-32 13-14 21-24 13-14 0 2.2 mm	21-22 13-14 0 8 mm			
ads ZCKE06 KJ1∙	5, ZCKE08 with bo ZCKJ2•	dy ZCKJ5•	ZCKJ6	ZCKJ7	ZCKJ8	ZCKJ9
20°	11-1221-22 13-14/23-24 13-14/23-24 13-14/23-24 10°	20° 21-22 13-14 0 45° ►	45° 13-14 0 20°	11-12 21-22 0 20°	13-14 23-24 0 20°	20° 21:22 21:22 21:22 21:22 21:22 11:22 11:22
KJD39	ZCKJD37	ZCKJD31	ZCKJD35			
105	21-22 31-22 13-14 0 45°		21-22 13-14 0 45*			
KJ4∙ actuated			1 st step		2 nd step	
12 24 23 24 23 24 23			14 13 12 11 24 23 22 23 21 23		14 13 12 11 24 23 22 21	
tact operation		■ closed □ open	(A) = cam displacem (P) = positive openin			

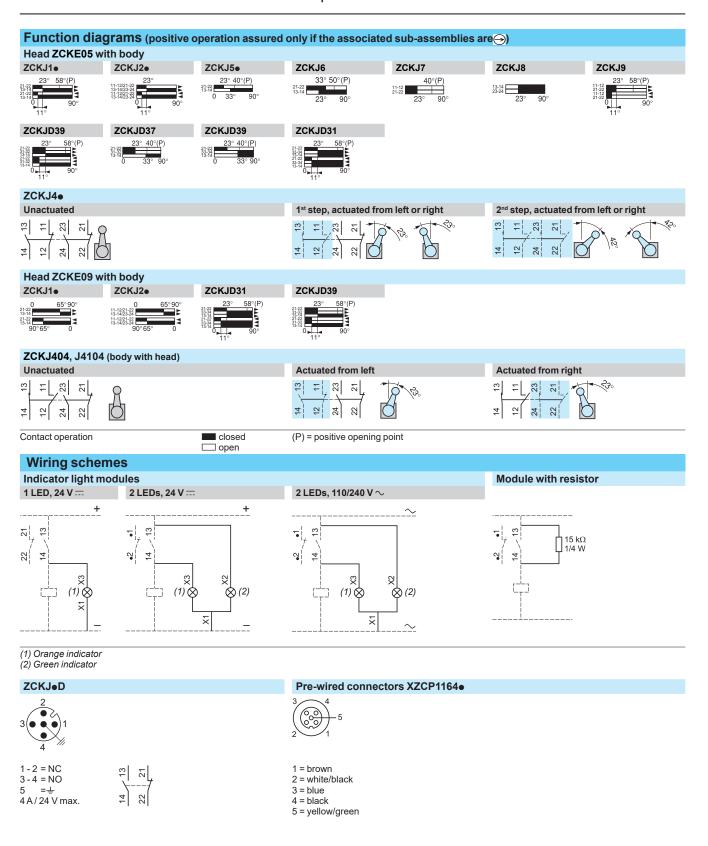
Telemecanique

Sensors

Operation, schemes

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies



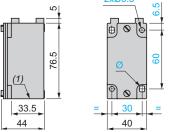
Dimensions

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies

Bodies





ZCKJ11, J21, J41, J1100 ZCKJ11H29, J21H29, J41H29, J1100H29 ZCKJ11H7, J21H7, J41H7, J1100H7

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42.5

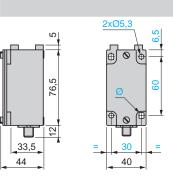
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83.5

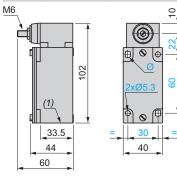
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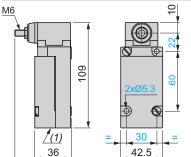
36





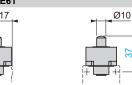
Bodies with rotary head mounted ZCKJ404, ZCKJ404H29, ZCKJ404H7

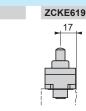




ZCKJ4104, ZCKJ4104H29, ZCKJ4104H7

Plunger heads ZCKE61





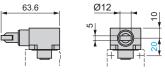








ZCKE64





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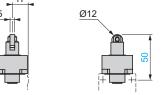




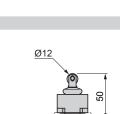




2CKE62, 2CKE67

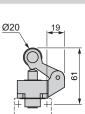






17

ZCKE21, ZCKE23



(1) 1 tapped entry for ISO M20 x 1.5 or Pg 13.5 cable gland or tapped 1/2" NPT. Ø: 2 elongated holes Ø 5.3 x 7.3.

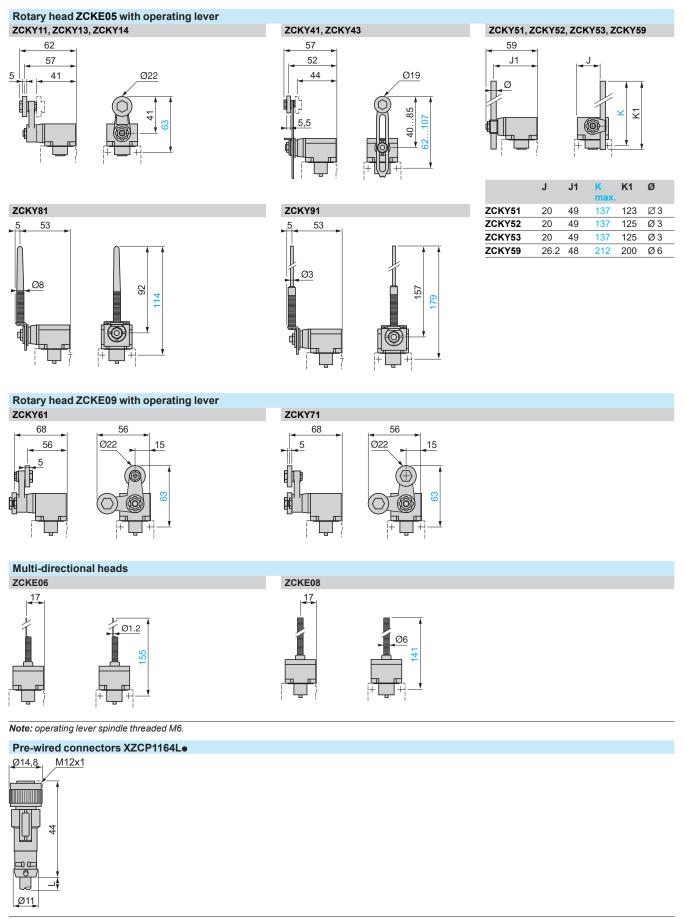


Telemecanique Sensors

Dimensions (continued)

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies



L = 2, 5 or 10 m.



Туре

Fixed bodies

Limit switches

Scheme

Bodies with contacts for plunger or rotary head With contact

block

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body

Adaptable sub-assemblies for low temperature applications (- 40°C)

Positive

operation

(1)

Cable entry

1/2" NPT

Pg 13.5

1/2" NPT

ISO M20 x 1.5

ZCKJ4046H7

ZCKJ41046

ZCKJ41046H29

ZCKJ41046H7

0.455

0.465

0.465

0.465

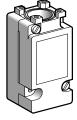
Weight

kg

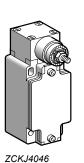
Reference



ZCKJ1



ZCKJ11



2-pole NC + NO ZCKJ1 0.310 1 step \ominus Pg 13.5 33 3 snap action ISO M20 x 1.5 ZCKJ1H29 0.310 (XE2SP2151) 1/2" NPT ZCKJ1H7 0.310 22 4 Double-pole 2 CO Pg 13.5 ZCKJ2 0 3 1 0 13 ÷ 23 5 simultaneous. ISO M20 x 1.5 ZCKJ2H29 0.310 snap action ZCKJ2H7 1/2" NPT 0.310 5 22 4 2 (XESP2021) 2-pole NC + NO ZCKJ5 0.310 Pg 13.5 \ominus 13 3 break before make. ISO M20 x 1.5 ZCKJ5H29 0.310 slow break ZCKJ5H7 4 1/2" NPT 0.310 22 (XE2NP2151) 2-pole NO + NC Pg 13.5 ZCKJ6 0.310 \ominus <u></u> 5 make before break ISO M20 x 1.5 ZCKJ6H29 0.310 slow break ZCKJ6H7 4 1/2" NPT 0.310 2 (XE2NP2161) 2-pole NC + NC Pg 13.5 ZCKJ7 0 3 1 0 \ominus 7 21 simultaneous. ISO M20 x 1.5 ZCKJ7H29 0.310 slow break 1/2" NPT ZCKJ7H7 0.310 \sim 22 (XE2NP2141) 2-pole NO + NO ZCKJ8 0.310 Pg 13.5 13 _ 23 simultaneous. ISO M20 x 1.5 ZCKJ8H29 0.310 slow break 1/2" NPT ZCKJ8H7 0.310 4 24 (XE2NP2131) 2-pole NC + NC ZCKJ9 0.310 Pg 13.5 \ominus ÷ 3 snap action ISO M20 x 1.5 ZCKJ9H29 0.310 (XE2SP2141) 1/2" NPT ZCKJ9H7 0.310 2 22 2 step Double-pole 2 CO ZCKJ4 0.310 Pg 13.5 c 7 33 5 staggered, ISO M20 x 1.5 ZCKJ4H29 0.310 snap action ZCKJ4H7 4 2 22 1/2" NPT 0.310 4 (XESP2031) **Plug-in bodies** ZCKJ11 0.300 1 step Single-pole CO Pg 13.5 13 7 snap action ISO M20 x 1.5 ZCKJ11H29 0.300 1/2" NPT ZCKJ11H7 2 0.300 4 Double-pole 2 CO Pg 13.5 ZCKJ21 0.300 ო ÷ 33 3 simultaneous ISO M20 x 1.5 ZCKJ21H29 0.300 snap action 1/2" NPT ZCKJ21H7 0.300 2 4 24 2 2 step Double-pole 2 CO ZCKJ41 0.300 Pg 13.5 13 7 8 3 staggered. ISO M20 x 1.5 ZCKJ41H29 0.300 snap action 1/2" NPT ZCKJ41H7 0 300 12 4 24 22 **Bodies with contacts** With spring return rotary head (without operating lever) Туре With contact Scheme Positive Cable entry Reference Weight block operation kg (1)**Fixed body** ZCKJ4046 0.455 2 step Double-pole 2 CO Pg 13.5 23 21 1 1 from the left AND 1 from the right staggered, ISO M20 x 1.5 ZCKJ4046H29 0.455

(1) \bigcirc : head assuring positive opening operation.

Plug-in body

1 from the left AND

1 from the right

2 step

snap action

staggered,

snap action

Double-pole 2 CO

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies for low temperature applications (- 40°C)

ZCKE616





ZCKE676

ZCKE636



ZCKE646

ZCKE626





ZCKE216

ZCKE236



ZCKE056



ZCKE096



ZCKE066

ZCKE096	

ZCKE086

Plunger	heads					
Type of oper	rator	Compatible bodies	Maximum actuation speed	Positive operation (1)	Reference	Weight kg
For actuati	ion on end					
End plunger metal		ZCKJ●, ZCKJ●●	0.5 m/s	\ominus	ZCKE616	0.140
Side plunger metal		ZCKJ•, ZCKJ••, except ZCKJ4 and J41	0.5 m/s	\ominus	ZCKE636	0.200
For actuati	ion by 30° can	n				
Roller plunge steel	ər	ZCKJ●, ZCKJ●●	1 m/s	\ominus	ZCKE626	0.155
End reinforce plunger steel	ed roller	ZCKJ●, ZCKJ●●	1 m/s	Θ	ZCKE676	0.155
Side roller plunger steel	Horizontal	ZCKJ•, ZCKJ••, except ZCKJ4 and J41	0.6 m/s	Θ	ZCKE646	0.205
	Vertical	ZCKJ•, ZCKJ••, except ZCKJ4 and J41	0.6 m/s	\ominus	ZCKE656	0.205
Roller lever plunger (1 direction of actuation)	Thermoplastic	ZCKJ●, ZCKJ●●	1.5 m/s	\ominus	ZCKE216	0.185
·	Steel	ZCKJ●, ZCKJ●●	1.5 m/s	\ominus	ZCKE236	0.195

Rotary heads (witho	ut operating l	ever)			
Туре	Compatible bodies	Maximum actuation speed	Positive operation (1)	Reference	Weight kg
Spring return, for actuation from left AND right or from left OR right (see page 25)	ZCKJ●, ZCKJ●●	1.5 m/s by 30° cam	\ominus	ZCKE056	0.165
Stay put, for actuation from left AND right (see page 25)	ZCKJ1, J11 ZCKJ2, J21	0.5 m/s	-	ZCKE096	0.190

Multi-directional heads

Type of operator	Compatible bodies	Maximum actuation speed	Positive operation (1)	Reference	Weight kg
For actuation by an	y moving part				
"Cat's whisker"	ZCKJ●, ZCKJ●●, except ZCKJ4 and ZCKJ41	1 m/s in any direction	-	ZCKE066	0.115
Spring rod	ZCKJ●, ZCKJ●●, except ZCKJ4 and ZCKJ41	0.5 m/s in any direction	-	ZCKE086	0.125

 $(1) \bigoplus$: head assuring positive opening operation.



ZCKY4•

ZCKY51

ZCKY81

ZCKY71

XE2SP21•1

Limit switches

Operating levers for rotary heads

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies for low temperature applications (- 40°C)

		Description			Positive operation (1)	Reference	Weight kg
		For actuation by 30° ca	m				
		Roller lever (2)	Thermoplastic		\ominus	ZCKY11	0.025
			Steel		\ominus	ZCKY13	0.035
			Steel, ball bearing	mounted	\ominus	ZCKY14	0.030
		Variable length roller lever (3)	Thermoplastic		-	ZCKY41	0.030
			Steel		-	ZCKY43	0.040
		For actuation by any m	oving part				
		Square rod (2)	Ø 3 mm steel, L = 125 mm		-	ZCKY51	0.025
Î	Î	Round rod (2)	Ø 3 mm steel, L = 125 mm		-	ZCKY53	0.025
	Ħ		Ø 3 mm glass fibre L = 125 mm	·,	-	ZCKY52	0.020
			\emptyset 6 mm thermopla L = 200 mm	stic,	-	ZCKY59	0.030
	(76)	Spring lever (3)	E - 200 mm		_	ZCKY81	0.020
(63)		Spring-metal rod lever (3)				ZCKY91	0.020
Y	U				-		0.023
ZCKY5•	ZCKY59	For actuation by specif		peration v	vith head ZC	KE096)	
201(100	201(100	Forked arm with rollers (2)	1 track		-	ZCKY71	0.035
		thermoplastic	2 track		-	ZCKY61	0.035
		2-pole and double-	pole contact	blocks	•		
		Type of contact	Scheme	For body	Positive operation (1)	Reference	Weight kg
1		NC + NO snap action	2 2 3	ZCKJ1	\ominus	XE2SP2151	0.020
			35 [4				
O		NC + NO break before make, slow break	22 14	ZCKJ5	\ominus	XE2NP2151	0.020
ZCKY91)	break before make,	7 3 3	ZCKJ5 ZCKJ2		XE2NP2151 XESP2021	
O)	break before make, slow break 2 CO simultaneous,	14 14 14 14 14 13 14 13 14 13 14 13 14 13 14 13 14 13 14 14 13 14 14 13 14 14 14 14 14 14 14 14 14 14	ZCKJ2			0.04
C		break before make, slow break 2 CO simultaneous, snap action 2 CO staggered,	14 13 14 13 1 12 1 12 1 2 1 12 1 12 2 2 2 2 2 1	ZCKJ2	-	XESP2021	0.045
ску91		break before make, slow break 2 CO simultaneous, snap action 2 CO staggered, snap action NC + NO make before break,	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ZCKJ2 ZCKJ4	-	XESP2021 XESP2031	0.020
ску91	XES P20•1	break before make, slow break 2 CO simultaneous, snap action 2 CO staggered, snap action NC + NO make before break, slow break NC + NC simultaneous,	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	ZCKJ2 ZCKJ4 ZCKJ6	- - -	XESP2021 XESP2031 XE2NP2161	0.045

(1) : NC contact with positive opening operation or sub-assembly assuring positive opening

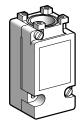
(1) (2) No contact man positive operation.
(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
(3) Adjustable throughout 360° in 5° steps.

Limit switches

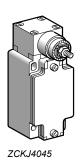
XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies for high temperature applications (+ 120°C)



ZCKJ•



ZCKJ•15



Bodies with contacts	i oi plunger	,				
Туре	With contact block	Scheme	Positive operation (1)	Cable entry	Reference	Weight kg
Fixed bodies						
1 step	2-pole NC + NO	21	Θ	Pg 13.5	ZCKJ1	0.31
	snap action (XE2SP2151)	X7		ISO M20 x 1.5		0.31
	(XE2012101)	52 14		1/2" NPT	ZCKJ1H7	0.31
	Double-pole 2 CO	21 13	_	Pg 13.5	ZCKJ25	0.31
	simultaneous,		†	ISO M20 x 1.5	ZCKJ25H29	0.31
	snap action (XESP20215)	22 24 12 14		1/2" NPT	ZCKJ25H7	0.31
	2-pole NC + NO	∞l – l	\ominus	Pg 13.5	ZCKJ5	0.31
	break before make,	77	Ŭ	ISO M20 x 1.5		0.31
	slow break (XE2NP2151)	52 [4		1/2" NPT	ZCKJ5H7	0.31
	2-pole NO + NC	13 [3	$\overline{\Theta}$	Pg 13.5	ZCKJ6	0.31
	make before break,	7-5	Ŭ	ISO M20 x 1.5	ZCKJ6H29	0.31
	slow break (XE2NP2161)	[4] 53		1/2" NPT	ZCKJ6H7	0.31
	2-pole NC + NC	_1 _1	\ominus	Pg 13.5	ZCKJ7	0.31
	simultaneous,	∓ ⊼ 77	9	ISO M20 x 1.5		0.31
	slow break (XE2NP2141)	53 33		1/2" NPT	ZCKJ7H7	0.31
	2-pole NO + NO	 		Pg 13.5	ZCKJ8	0.31
	simultaneous,	33 3		ISO M20 x 1.5		0.31
	slow break	4 Z		1/2" NPT	ZCKJ8H7	0.31
	(XE2NP2131)					
	2-pole NC + NC	5 11	\ominus	Pg 13.5	ZCKJ9	0.31
	snap action (XE2SP2141)	77		ISO M20 x 1.5		0.31
	· · · · ·	<u> </u>		1/2" NPT	ZCKJ9H7	0.310
2 step	Double-pole 2 CO	21 23 23	-	Pg 13.5	ZCKJ45	0.31
	staggered, snap action	$\frac{1}{7}$	1	ISO M20 x 1.5		0.31
	(XESP20315)	12 14 22 24 22		1/2" NPT	ZCKJ45H7	0.31
Plug-in bodies						
1 step	Single-pole CO	t [-	Pg 13.5	ZCKJ115	0.30
	snap action	<u>\</u> 7		ISO M20 x 1.5		0.30
		12 14		1/2" NPT	ZCKJ115H7	0.30
	Double-pole 2 CO	21 23 23	_	Pg 13.5	ZCKJ215	0.30
	simultaneous, snap action	$\overline{1}$	†	ISO M20 x 1.5		0.30
		14 24 24 22		1/2" NPT	ZCKJ215H7	0.300
2 step	Double-pole 2 CO	21 13	-	Pg 13.5	ZCKJ415	0.30
	staggered, snap action		†		ZCKJ415H29	0.30
		12 14 22 24		1/2" NPT	ZCKJ415H7	0.300
Bodies with contacts		-			ing lever)	
Туре	With contact block	Scheme	operation	Cable entry	Reference	Weight kg
Fixed body			(1)			
2 step	Double-pole 2 CO	2 23 11	-	Pg 13.5	ZCKJ4045	0.45
1 from the left AND	staggered,		1	ISO M20 x 1.5	ZCKJ4045H29	0.45
1 from the right	snap action	12 12 22 24		1/2" NPT	ZCKJ4045H7	0.45
Plug-in body						
2 step	Double-pole 2 CO	21 23 21	-	Pg 13.5	ZCKJ41045	0.46
1 from the left AND 1 from the right	staggered, snap action	2 2 2 2	1	ISO M20 x 1.5 1/2" NPT	ZCKJ41045H29 ZCKJ41045H7	0.46

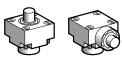
 $(1) \bigoplus$: head assuring positive opening operation.



Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body

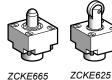
Adaptable sub-assemblies for high temperature applications (+ 120°C)



ZCKE635

ZCKE645

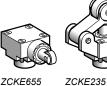
ZCKE615



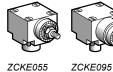
ZCKE665



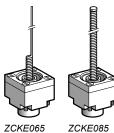
ZCKE675



ZCKE655



ZCKE055



ZCKE065

Type of operator		Compatible bodies	Maximum	Positive	Reference	Weight
i jpo ol oporatol			actuation speed	operation (1)		kg
For actuation on end						
End plunger	Metal	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	0.5 m/s	\ominus	ZCKE615	0.140
Side plunger	Metal	ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9	0.5 m/s	\ominus	ZCKE635	0.200
For actuation by 30° can	n					
End ball bearing plunger	Steel	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	0.1 m/s	⊖	ZCKE665	0.150
End roller plunger	Steel	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	1 m/s	\ominus	ZCKE625	0.155
End reinforced roller plunge	e r Steel	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	1 m/s	\ominus	ZCKE675	0.155
Side roller plunger	Steel Horizontal	ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9	0.6 m/s	\ominus	ZCKE645	0.205
	Steel Vertical	ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9	0.6 m/s	\ominus	ZCKE655	0.205
Roller lever plunger (1 direction of actuation)	Steel	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	1.5 m/s	\ominus	ZCKE235	0.195
	Thermoplastic	ZCKJ1, J2, J4, ZCKJ115, J215, J415, ZCKJ5, J6, J7, J8, J9	1.5 m/s	\ominus	ZCKE215	0.185
Rotary heads (withou	ut operating lever)					
Туре		Compatible bodies	Maximum actuation speed	Positive operation (1)	Reference	Weight kg
Spring return, for actuation from left AND right or from left OR right (see page 25)		ZCKJ1, J2, J4, ZCKJ115, J215, ZCKJ415, ZCKJ5, J6, J7, J8, J9	1.5 m/s by 30° cam	\ominus	ZCKE055	0.165
Stay put, actuation from left AND right (see page 25)		ZCKJ1, J2, ZCKJ115, J215	0.5 m/s	-	ZCKE095	0.190
Multi-directional he	ads					
Type of operator		Compatible bodies	Maximum actuation speed	Positive operation (1)		Weight kg
For actuation by any mo	oving part					
"Cat's whisker"		ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9	1 m/s in any direction	-	ZCKE065	0.115
Spring rod		ZCKJ1, J2, ZCKJ115, J215, ZCKJ5, J6, J7, J8, J9	0.5 m/s in any direction	-	ZCKE085	0.125

(1) \bigcirc : head assuring positive opening operation.

Limit switches

XC Standard range, industrial format EN 50041 Metal, conforming to CENELEC EN 50041, XCKJ Fixed or plug-in body Adaptable sub-assemblies for high temperature applications (+ 120°C)

Operating leve	ers for rotar	y neads			
Description			Positive operation (1)	Reference	Weigh k
For actuation by 3	30° cam				
Roller lever (2)	Thermoplastic		\ominus	ZCKY115	0.02
	Steel		\ominus	ZCKY13	0.03
	Steel, ball bearing	g mounted	\ominus	ZCKY14	0.03
Variable length roller lever (3)	Thermoplastic		-	ZCKY415	0.0
1,7	Steel		_	ZCKY43	0.04
For actuation by a	any moving pa	rt			
Square rod (2)	Ø 3 mm steel, L =	125 mm	-	ZCKY51	0.0
Round rod (2)	Ø 3 mm steel, L =	125 mm	-	ZCKY53	0.0
	Ø 3 mm glass fibr	e, L = 125 mm	-	ZCKY52	0.0
For actuation by	specific cam (o	only for operation	on with head	d ZCKE095)	
Forked arm with rollers (2)	1 track		-	ZCKY715	0.0
	2 track		-	ZCKY615	0.0
2-pole and do	uble-pole co	ontact blog	cks		
	Scheme	For bodies	Positive operation (1)	Reference	Weigh k
NC + NO snap action	22 13	ZCKJ1	\ominus	XE2SP2151	0.0
NC + NO break before make, slow break	22 1 22 13	ZCKJ5	€	XE2NP2151	0.02
2 CO simultaneous, snap action	14 12 13 22 24 23 22 23 23	ZCKJ25 †	-	XESP20215	0.0
staggered,	14 13 22 23 22 23 22 23	ZCKJ45	-	XESP20315	0.04
NC + NO make before break, slow break	[4] [4] [4] [4] [4] [5] [5] [5] [5] [5] [5] [5] [5] [5] [5	ZCKJ6	\ominus	XE2NP2161	0.0
NC + NC simultaneous, slow break	22 11	ZCKJ7	\ominus	XE2NP2141	0.0
NO + NO simultaneous, slow break	24 13	ZCKJ8	-	XE2NP2131	0.0
NC + NC	5 17	ZCKJ9	\ominus	XE2SP2141	0.02

(1) : NC contact with positive opening operation or sub-assembly assuring positive opening

(2) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever or its mounting.
(3) Adjustable throughout 360° in 5° steps.



ZCKY43





ZCKY51





ZCKY715

ZCKY615





XE2SP21•1

XESP20e15 XE2NP21•1

Index

Limit switches

XC Standard range Product reference index

D		XCKJ161A	156	XCKN2703P20	110	XCKS149H29	138	XCMD2506L1	2
DE9RA1012	100	XCKJ161D	154	XCKN2706P20	111	XCKS159H29	138	XCMD2510AM4	5
	112	XCKJ161H29	150	XCKN2708P20	111	XCKS501H29	138	XCMD2510L1	2
	113	XCKJ167A	156	XCKN2710P20	110	XCKS502H29	138	XCMD2511L1	2
DE9RA1212	145	XCKJ167D	154	XCKN2718P20	111	XCKS531H29	138	XCMD2515AM4	5
DE9RA2012	145	XCKJ167H29	150	XCKN2721P20	110	XCKS533H29	138	XCMD2515L1	2
		XCKJ50511H29	150	XCKN2727P20	110	XCKS539H29	138	XCMD2516L1	2
X		XCKJ50513H29	150	XCKN2739P20	111	XCKS541H29	138	XCMD2517L1	2
(ALZ09	100	XCKJ50541H29	150	XCKN2745P20	111	XCKS543H29	138	XCMD2524L1	2
(CKD2101G11	100	XCKJ50559H29	150	XCKN2749P20	111	XCKS549H29	138	XCMD2545L1	2
(CKD2101M12	100	XCKJ561H29	150	XCKN2902P20	110	XCKS559H29	138	XCMD25F0L1	2
(CKD2101P16	100	XCKJ567H29	150	XCKN2903P20	110	XCKT2101G11	100	XCMD25F2L1	2
(CKD2102M12	92	XCKL102	124	XCKN2906P20	111	XCKT2101P16	100	XCMD25G1L1	2
(CKD2102P16	88	XCKL106	124	XCKN2908P20	111	XCKT2102P16	94	XCMH2102L1	7
(CKD2106M12	93	XCKL110	124	XCKN2910P20	110	XCKT2106P16	94	XCMH2102L2	7
(CKD2106P16	89	XCKL115	124	XCKN2918P20	111	XCKT2110P16	94	XCMH2102L3	7
(CKD2110M12	92	XCKL121	124	XCKN2921P20	110	XCKT2111P16	94	XCMH2102L5	7
(CKD2110P16	88	XCKL502	124	XCKN2927P20	110	XCKT2118P16	95	XCMH2102L6	7
(CKD2111M12	92	XCKL506	124	XCKN2939P20	111	XCKT2121P16	94	XCMH2102L7	7
(CKD2111P16	88	XCKL510	124	XCKN2945P20	111	XCKT2139P16	95	XCMH2102L8	7
(CKD2118M12	93	XCKL515	124	XCKN2949P20	111	XCKT2145P16	95	XCMH2102L9	7
(CKD2118P16	89	XCKL521	124	XCKP2101G11	100	XCKT21H0P16	95	XCMH2102LA1	7
(CKD2121M12	92	XCKM102H29	122	XCKP2101M12	100	XCKT21H2P16	95	XCMH2103L1	7
(CKD2121P16	88	XCKM106H29	122	XCKP2101P16	100	XCKT2501G11	100	XCMH2103L2	7
XCKD2127M12	92	XCKM110H29	122	XCKP2102M12	86	XCKT2501P16	100	XCMH2103L3	7
KCKD2127P16	88	XCKM115H29	122	XCKP2102P16	82	XCKZ09	132	XCMH2103L5	7
KCKD2128M12	92	XCKM121H29	122	XCKP2106P16	83	XCMD2101C12	49	XCMH2103L8	7
KCKD2128P16	88	XCKM502H29	122	XCKP2110M12	86	XCMD2101L1	49	XCMH2106L1	7
XCKD2139M12	93	XCKM506H29	122	XCKP2110P16	82	XCMD2101M12	49	XCMH2106L2	7
XCKD2139P16	89	XCKM510H29	122	XCKP2111M12	86	XCMD2102AM4	54	XCMH2107L1	7
(CKD2145M12	93	XCKM515H29	122	XCKP2111P16	82	XCMD2102C12	36	XCMH2107L2	7
KCKD2145P16	89	XCKM521H29	122	XCKP2118M12	87	XCMD2102L1	28	XCMH2107L3	7
(CKD2149M12	93	XCKML102	126	XCKP2118P16	83	XCMD2102M12	36	XCMH2110L1	7
(CKD2149P16	89	XCKML102H29	126	XCKP2121M12	86	XCMD2106C12	37	XCMH2110L2	7
KCKD21H0M12	93	XCKML110	126	XCKP2121P16	82	XCMD2106L1	29	XCMH2110L3	7
(CKD21H0P16	89	XCKML110H29	126	XCKP2127M12	86	XCMD2106M12	37	XCMH2110LA1	7
KCKD21H2M12	93	XCKML115	126	XCKP2127P16	82	XCMD2110AM4	54	XCMH2115L1	7
CKD21H2P16	89	XCKML115H29	126	XCKP2128M12	86	XCMD2110C12	36	XCMH2115L1L0	7
(CKD2501G11	100	XCKML121	126	XCKP2128P16	82	XCMD2110L1	28	XCMH2115L2	7
KCKD2501P16	100	XCKML121H29	126	XCKP2139M12	87	XCMD2110M12	36	XCMH2115L2L0	7
KCKD2502P16	88	XCKML502	126	XCKP2139P16	83	XCMD2111C12	36	XCMH2115L3	7
KCKD2506P16	89	XCKML502H29	126	XCKP2145M12	87	XCMD2111L1	28	XCMH2115L3L0	7
(CKD2510P16	88	XCKML510	126	XCKP2145P16	83	XCMD2111M12	36	XCMH2115L8	7
(CKD2511P16	88	XCKML510H29	126	XCKP2149M12	87	XCMD2115AM4	54	XCMH2115LA1	7
KCKD2518P16	89	XCKML515	126	XCKP2149P16	83	XCMD2115C12	37	XCMH211AL05	7
KCKD2521P16	88	XCKML515H29	126	XCKP21H0M12	87	XCMD2115L1	29	XCMH211AL1	7
KCKD2527P16	88	XCKML521	126	XCKP21H0P16	83	XCMD2115M12	37	XCMH2121L1	7
KCKD2528P16	88	XCKML521H29	126	XCKP21H2M12	87	XCMD2116C12	37	XCMH2121L1R0	7
KCKD2539P16	89	XCKN2102P20	110	XCKP21H2P16	83	XCMD2116L1	29	XCMH2121L2	7
KCKD2545P16	89	XCKN2103P20	110	XCKP2501G11	100	XCMD2116M12	37	XCMH2121L5	7
KCKD2549P16	89	XCKN2106P20	111	XCKP2501P16	100	XCMD2117C12	37	XCMH2145L1	7
KCKD25H0P16	89	XCKN2108P20	111	XCKP2502P16	82	XCMD2117L1	29	XCMH2145L2	7
CKD25H2P16	89	XCKN2110P20	110	XCKP2506P16	83	XCMD2117M12	37	XCMH2159L1	7
(CKJ10511A	156	XCKN2118P20	111	XCKP2510P16	82	XCMD2124C12	36	XCMH2159L2	7
(CKJ10511D	154	XCKN2121P20	110	XCKP2511P16	82	XCMD2124L1	28	XCMH21F0L1	7
(CKJ10511H29	150	XCKN2127P20	110	XCKP2518P16	83	XCMD2124M12	36	XCMH21F0L2	7
(CKJ10513A	156	XCKN2139P20	111	XCKP2521P16	82	XCMD2145C12	37	XCMH21F2L1	7
(CKJ10513D	154	XCKN2145P20	111	XCKP2527P16	82	XCMD2145L1	29	XCMH21F2L2	7
(CKJ10513H29	150	XCKN2149P20	111	XCKP2528P16	82	XCMD2145M12	37	XCMH2902L1	7
(CKJ10541A	156	XCKN2502P20	110	XCKP2539P16	83	XCMD21F0C12	36	XCMH2902L5	7
CKJ10541D	154	XCKN2503P20	110	XCKP2545P16	83	XCMD21F0L1	28	XCMH2903L1	7
CKJ10541H29	150	XCKN2506P20	111	XCKP2549P16	83	XCMD21F0M12	36	XCMH2910L1	7
CKJ10559A	156	XCKN2508P20	111	XCKP25H0P16	83	XCMD21F2C12	36	XCMH2910L2	7
(CKJ10559D	154	XCKN2510P20	110	XCKP25H2P16	83	XCMD21F2L1	28	XCMH2910L3	7
(CKJ10559H29	150	XCKN2518P20	111	XCKS101H29	138	XCMD21F2M12	36	XCMN2102L1	7
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