

## FEATURES

- High flow due to angled seat design
- Anti-waterhammer design (fluid entry under the disc)
- Actuator rotatable through 360°
- Maintaining position or closing (see options) of the valve in case of power failure
- Fluid isolation between electrical actuator and valve body
- LED valves status display
- The valves satisfy Pressure Equipment Directive 97/23/EC, article 3.3
- The motorised valves comply with the essential requirements of EMC Directive 2004/108/EC (EN-IEC 61000-6-2 et EN-IEC 61000-6-4) and Low Voltage Directive 2006/95/EC (EN-IEC 60730)
- Vacuum operation up to 10<sup>-2</sup> mbar
- The valves satisfy all relevant EC Directives and with the provisions of the Directive RoHS 2

## GENERAL

Differential pressure	See «SPECIFICATIONS» [1 bar =100 kPa]
Maximum allowable pressure	10 bar
Ambient temperature range	-10°C to +50°C
Maximum viscosity	600 cSt (mm <sup>2</sup> /s)
Actuating time	< 1,3 s (opening) / < 1,3 s (closing)

fluids (*)	temperature range (TS)	seal materials (*)
air and gas groups 1 & 2	-10°C to +90°C	NBR (nitrile)
water, oil, liquids groups 1 & 2	-10°C to +90°C	NBR (nitrile)

## CONSTRUCTION

### MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

Valve body	AISI 316L
Stuffing box housing	PBT, GF 30% (glass fibre reinforced)
Stem valve	Stainless steel, AISI 303
Stuffing box packing	NBR
Wiper seal	NBR
Disc seal	NBR

## OTHER MATERIALS

Top cover operator	Translucent polyamide (PA)
AC to DC housing (AC)	PA66, GB 30% (ball fibre reinforced)

## ELECTRICAL CHARACTERISTICS

Connector	Spade plug (cable Ø 6-10 mm)
Connector specification	ISO 4400 / EN 175301-803, form A
Motor consumption	12 W in operation, 0 W hold Max. peak current: 0,7 A
Visualisation valve (switching)	LED
Electrical safety (adapter AC to DC)	IEC 335 (EN-IEC 60730), class 2
Electrical enclosure protection	IP65 (EN 60529)
Standard voltages	DC (=) : 24V ±10 %, max. ripple 5% AC (~) : 110V to 250V / 50-60 Hz 24V to 48V ±10 % / 50-60 Hz

## RECOMMENDATION FOR MAXIMUM DUTY CYCLE

Ambient temperature +20°C	9 cycles/min <sup>(2)</sup>
Ambient temperature +50°C (max.)	4 cycles/min <sup>(2)</sup>

## ACCESSORIES

AC to DC adapter: 110V to 250V/50-60 Hz
code: <b>P290CA430078001</b>
24V to 48V ±10 % / 50-60 Hz
code: <b>P290CA438907001</b>

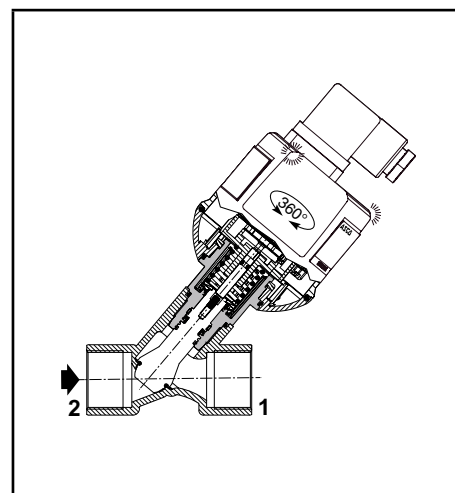
## OPTIONS

Fail close (valve returns to closed position on loss of power)
Valve body/stem 316L and FPM (fluoroelastomer) disc seal (*) <sup>(1)</sup>
M12 connector adapter <sup>(1)</sup>

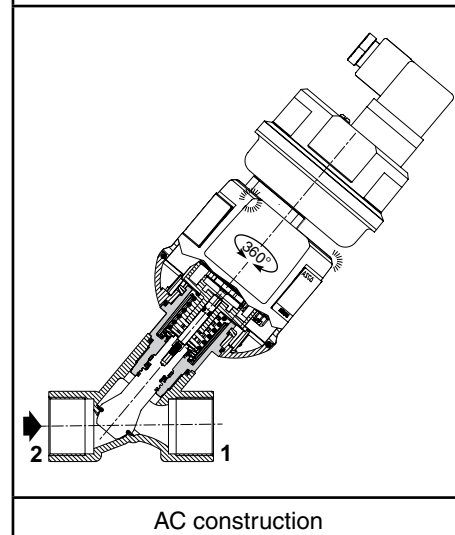
(\*) Ensure that the compatibility of the fluids in contact with the materials is verified.

<sup>(1)</sup> Contact us.

<sup>(2)</sup> For other cycles, contact us.



DC construction



AC construction

### SPECIFICATIONS

SPECIFICATIONS								15-DIGIT PRODUCT CODE					
piping (ISO 6708)		flow coefficient Kv		operating pressure differential (bar)		operator diameter	thread type	dimensions / type <sup>(1)</sup>	stainless steel AISI 316L		voltage code		
pipe size	DN			min.	max.						24 V...48 V / 50-60 Hz	110 V...250 V / 50-60 Hz	24 V/DC
					air, water, oil (*)								
						(m³/h)			(l/min)				
Motorized valve, entry under the disc													
3/8	10	2,7	45	0	6	67	G*	1	E290C52V0KA00		UA	VW	V1
1/2	15	3,8	63	0	5	67	G*	1	E290C53V0KA00				
3/4	20	6	100	0	4	67	G*	1	E290C54V0KA00				

<sup>(1)</sup> For dimensions, see drawing(s) for each construction type on the following page(s).

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified.

15-DIGIT PRODUCT CODE												
<b>Pipe thread</b>		<b>E</b>	<b>290</b>	<b>C</b>	<b>5</b>	<b>4</b>	<b>V</b>	<b>0</b>	<b>K</b>	<b>A00</b>	<b>V1</b>	<b>Voltage</b>
E = ISO 228/1 & ISO 7/1 (combination thread)												V1 = 24 V DC - class B
8 = NPT (on request)												VW = 110 V...250 V 50/60 Hz - class B
<b>Product series</b>												UA = 24 V...48 V 50/60 Hz - class B
290												
<b>Revision letter</b>												<b>A00</b> = Standard (No option)
C = Initial release												<b>Options</b>
												<b>EFC</b> = Electronic fail close <sup>(3)</sup>
<b>Fonction</b>												<b>C12</b> = M12 (contact us)
5 = Holding position <sup>(3)</sup>												
<b>DN</b>												<b>Materials</b> (No option)
2 = DN 10												<b>K</b> = Standard (AISI 316L body, SS 303 stem & NBR)
3 = DN 15												<b>Options</b> (contact us)
4 = DN 20												<b>X</b> = AISI 316L body, SS 316L stem & FPM
<b>Motorised operator dia.</b>												<b>Port</b>
V = Ø 67 mm												<b>0</b> = 2 way

<sup>(3)</sup> Use with EFC option (Electronic fail close)

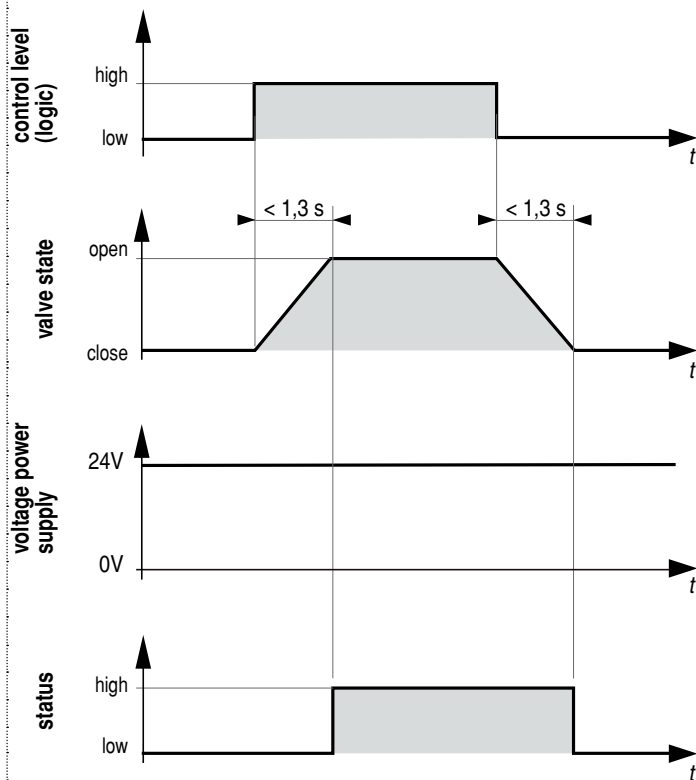
### INSTALLATION

- The valves can be mounted in any position without affecting operation
- Pipe connections (G\*) have standard combination thread according to ISO 228/1 and ISO 7/1
- Other pipe connections are available on request
- Installation/maintenance instructions are included with each valve
- 2D/3D CAD models - **In 3D**
- LED indicators for operating status display

status	valve OPEN	green
	valve CLOSED	orange
	valve moves to open	green flashing
	valve moves to close	orange flashing

### OPERATING DIAGRAM

standard (holding position)



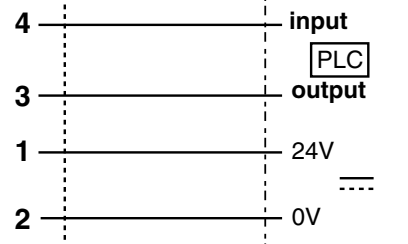
### WIRING DC

24 V  $\pm 10\%$  / DC

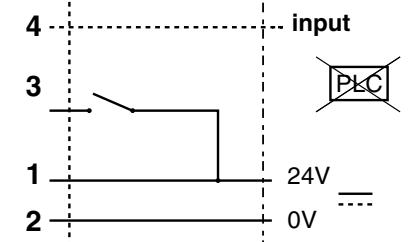


1	24 V / DC
2	0 V
3	control
4	state return (valve to PLC)

#### With PLC

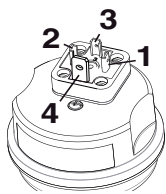


#### Without PLC



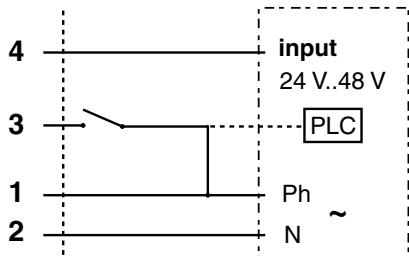
### WIRING AC

24 V...48 V  $\pm 10\%$  / AC 50/60 Hz

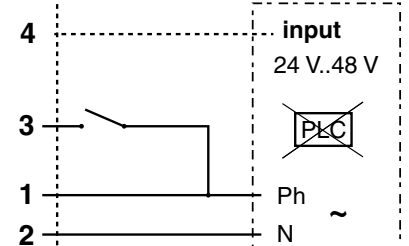


1	phase (Ph)
2	neutral (N)
3	control
4	state return (valve to PLC)

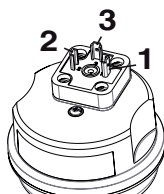
#### With PLC



#### Without PLC

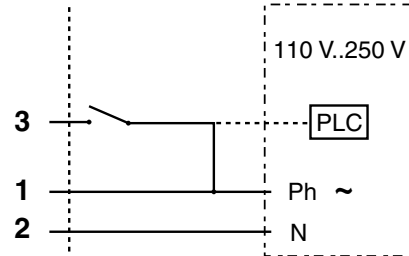
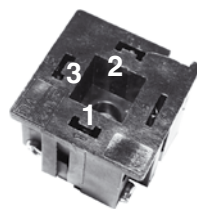


110 V...250 V / AC 50/60 Hz

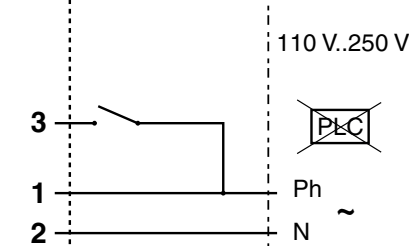


1	phase (Ph)
2	neutral (N)
3	control
-	-

#### With PLC

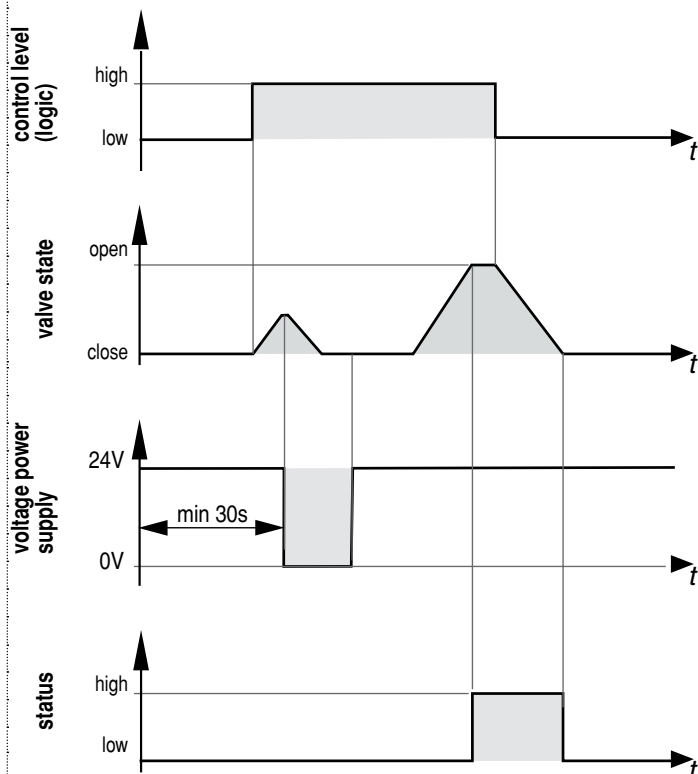


#### Without PLC



### OPERATING DIAGRAM

standard (fail close)



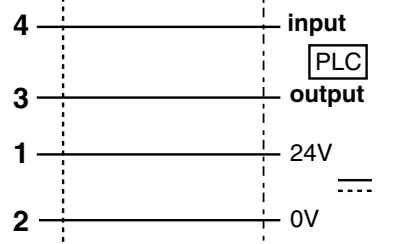
### WIRING DC

24 V  $\pm 10\%$  / DC

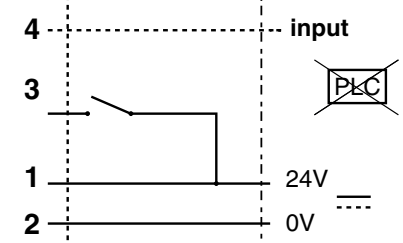


1	24 V / DC
2	0 V
3	control
4	state return (valve to PLC)

#### With PLC

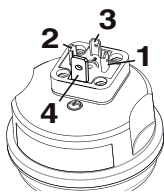


#### Without PLC



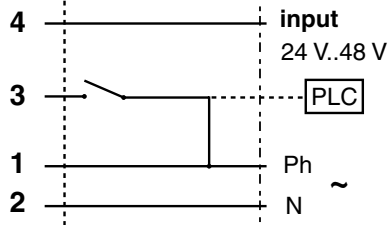
### WIRING AC

24 V...48 V  $\pm 10\%$  / AC 50/60 Hz

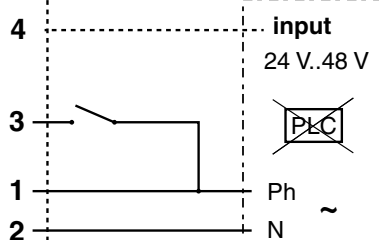


1	phase (Ph)
2	neutral (N)
3	control
4	state return (valve to PLC)

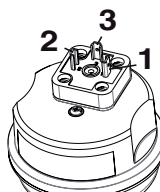
#### With PLC



#### Without PLC

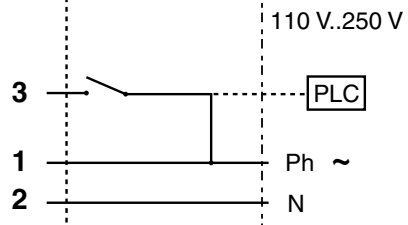


110 V...250 V / AC 50/60 Hz

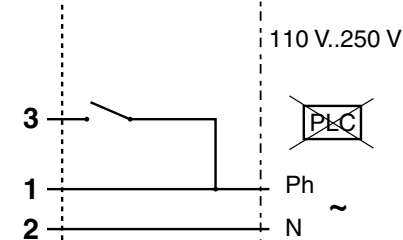


1	phase (Ph)
2	neutral (N)
3	control
-	-

#### With PLC



#### Without PLC

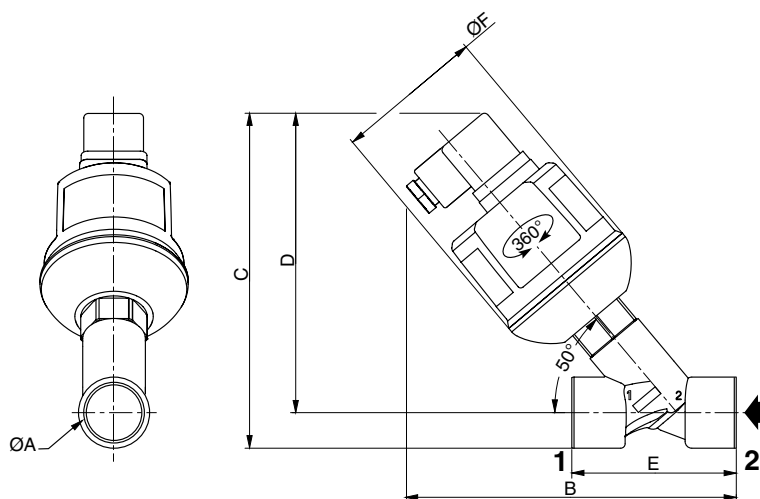


### DIMENSIONS (mm), WEIGHT (kg)



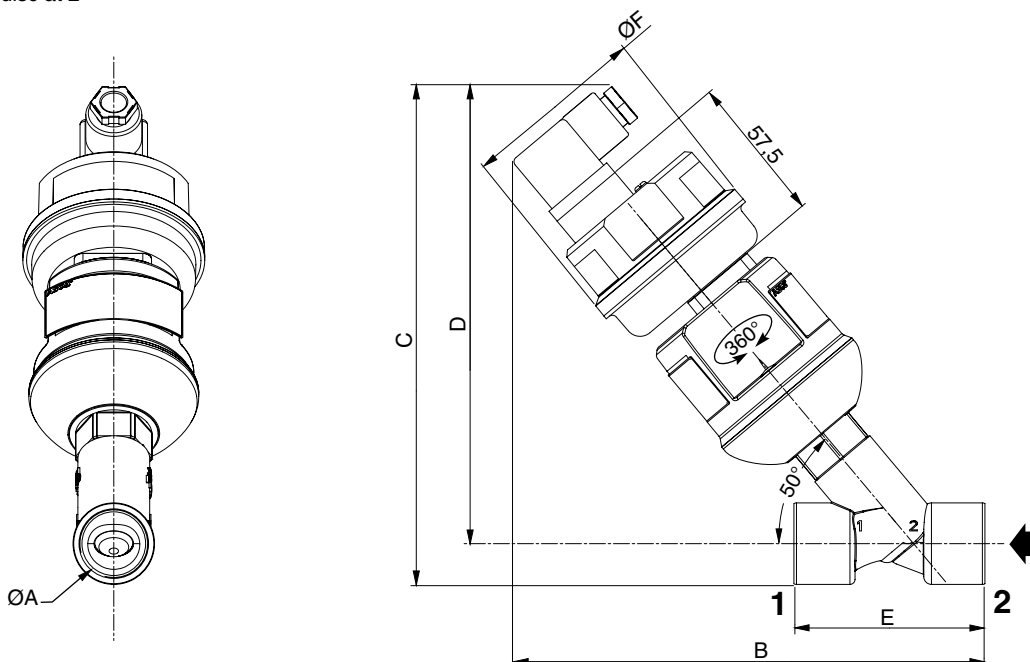
#### TYPE 01

DC version  
67 mm motorised operator  
Fluid entry: under the disc at 2  
ISO 4400 connector



#### TYPE 02

AC version (accessories)  
67 mm motorised operator with AC adapter  
Fluid entry: under the disc at 2  
ISO 4400 connector



type	Ø A	B	C	D	E	Ø F	weight <sup>(1)</sup>
<b>DC version</b>							
01	3/8	135	141	129	55	67	0,55
	1/2	142	145	131	65	67	0,55
	3/4	150	152	136	75	67	0,55
<b>AC version</b>							
02	3/8	171	189	175	55	71	0,65
	1/2	178	191	177	65	71	0,65
	3/4	186	196	180	75	71	0,65

<sup>(1)</sup> Incl. connector.

