

INDUSTRIAL PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The industrial pressure transmitter NAT 8252 features an exceptionally long-term stable thin-film-on-steel sensor cell with triple (optionally 5-fold) overpressure safety. Optionally, the NAT 8252 is available as a pressure switch with 1 or 2 switching outputs. The robust design and the wide temperature range from -40°C to +125°C qualify the NAT 8252 as the ideal solution for a wide range of demanding applications.



Applications

- Machine tools
- Hydraulics
- HVAC
- Refrigeration
- Process technology
- Water treatment

Features

- Smallest design
- Completely welded steel sensor system without additional seals
- Excellent long-term stability
- Optional: 5-fold overpressure resistance
- Optional: Switching output 1 or 2 PNP transistors

09/2021
Data sheet H72303aa

Technical Data

Measuring principle	Thin-film-on-steel	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 700 bar 0 ... 30 to 0 ... 10000 psi	Media temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC and more, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	Ambient temperature	-40°C ... +125°C (Cable PVC 22: -5°C ... +60°C) (Cable PUR 24: -40°C ... +70°C) (Cable Radox Tenuis 88: -40°C ... +100°C)
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ.		

Subject to change

Electrical connection	Male electrical connector, industrial standard, contact distance 9.4 mm, Mat. PA, EN 175301-803C				01		
	Male electrical connector M12x1, 4-pole, Mat. PA, IEC 61076-2-101				32		
	Male electrical connector M12x1, 5-pole, Mat. PA, IEC 61076-2-101				35		
	Male electrical connector MIL-C 26482, 6-pole, metal				02		
	Male electrical connector Deutsch DT04-3P, 3-pole				D3		
	Male electrical connector Deutsch DT04-4P, 4-pole				D4		
	Cable Mat. PVC, IP67/IP68, 2 x 2 x 0.14 mm ² , max. traction on cable: 2 N ⁷⁾				22		
	Cable Mat. PUR, IP67/IP68, 4 x 0.25 mm ² , shielded ⁷⁾				24		
	Cable Mat. EPD Raychem FDR25, IP67, 4 x 0.2 mm ² , shielded ⁷⁾				08		
	Cable Mat. Radox Tenuis, IP67/IP68, 4 x 0.5 mm ² , shielded ⁷⁾				88		
Output signal	Signal output	Load resistance	I (supply)	U (supply)			
	4 ... 20 mA	See graphic		24 (9 ... 32) VDC		19	
	0.5 ... 4.5 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		20	
	0 ... 5 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		14	
	0.1 ... 4.1 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		28	
	0.1 ... 5.1 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		29	
	0.5 ... 5 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		22	
	1 ... 5 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		25	
	0.5 ... 5.5 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		24	
	1 ... 6 VDC	≥ 5.0 kΩ to U _s	≤ 20 mA	24 (9 ... 32) VDC		16	
	0 ... 10 VDC	≥ 5.0 kΩ to U _s	≤ 15 mA	24 (15 ... 32) VDC		17	
	1 ... 10 VDC	≥ 5.0 kΩ to U _s	≤ 15 mA	24 (15 ... 32) VDC		26	
	0.1 ... 10.1 VDC	≥ 5.0 kΩ to U _s	≤ 15 mA	24 (15 ... 32) VDC		13	
	0.5 ... 4.5 VDC ratiometric	≥ 5.0 kΩ to U _s	≤ 10 mA	5 (4.75 ... 5.25) VDC		23	
	2 PNP transistors ³⁾		≤ 10 mA	24 (9 ... 32) VDC		PS	
	1 PNP transistor ¹⁰⁾		≤ 10 mA	24 (9 ... 32) VDC		T1	

Accessories	Female electrical plug M12x1, 5-pole ²⁾	33
	Female electrical plug industrial standard (for electrical connection 01), EN 175301-803C	34
	Pressure peak damping element ø 1.0 mm ⁶⁾	40
	Pressure peak damping element ø 0.4 mm ⁶⁾	44
	Seal FPM, -18°C ... +125°C	61
	Seal EPDM, -40°C ... +125°C	63
	Seal NBR, -25°C ... +100°C	83
	Special electrical connection: Pin 2 +, Pin 3 Ground, Pin 4 - (only for output signal 19 and male electrical connector 01, industrial standard)	90
	Special electrical connection: Pin 1 Out, Pin 2 +, Pin 3 Ground, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 01, industrial standard)	91
	Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 3 Out, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	95
	Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	96
	Special electrical connection: Pin 1 +, Pin 3 -, Pin 4 Out (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	G1
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 Ground (only for output signal 19 and male electrical connector 01, industrial standard)	92
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 Ground (only for output signal 19 and male electrical connector 32, M12x1, 4-pole)	E1
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	E2
	Special electrical connection: Pin 1 Out, Pin 2 -, Pin 3 +, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 01, industrial standard)	E3
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 01, industrial standard)	E9
	Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 4 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole)	E6
	Special electrical connection: Pin A +, Pin C - (only for output signal 19 and male electrical connector Deutsch DT04-3P, 3-pole)	F0
	Special electrical connection: Pin A +, Pin B Out, Pin C - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector Deutsch DT04-3P, 3-pole)	F1
	Special electrical connection: Pin A +, Pin C Out, Pin B/D -, Pin E Ground (Pin B and D are connected) (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 02, MIL-C 26482)	F3
	Special electrical connection: Pin 1 +, Pin 2 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole)	F4
	Special electrical connection: Pin 1 +, Pin 3 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole)	F5
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out, Pin 4 Ground (only for output signals 19 and male electrical connector 32, M12x1, 4-pole)	G2
	Special electrical connection: Pin 1 +, Pin 2 Out, Pin 3 Ground, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	F6
	Special electrical connection: Pin 1 +, Pin 2 Out, Pin 3 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole)	F7
	Cable length 0.5 m	EM
	Cable length 1.0 m	1M
	Cable length 2.0 m	2M
	Parameterization according to customer specification for output signal PS, T1 (see table "Parameters")	ZC
	Parameterization standard for output signal PS, T1 (see table "Parameters")	ZS
	Multiple packaging ⁸⁾	VM

¹⁾ Customized pressure ranges upon request

²⁾ For electrical connections 32 and 35

³⁾ Only with electrical connections 32, 22, 24, 08, 88

⁴⁾ Max. allowable pressure range 60 bar at 180 bar overpressure

⁵⁾ Max. allowable pressure range 160 bar at 480 bar overpressure

⁶⁾ Not for pressure connections 53, 24, 44, 18

⁷⁾ Cable length see accessories

⁸⁾ The order quantity must be a multiple of 50, only for electrical connections 01, 32, 35, 02, D3, D4, not for pressure connection 30 with electrical connections 02, D3, D4

⁹⁾ Upon request

¹⁰⁾ Only with electrical connections 32, 22, 24, 08, 88, D3

¹¹⁾ Without seal, use seal geometry according DIN EN ISO 6149-2

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAT2.5A	8252 75 2517 01 0000 0000 19 34 44 61	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0A	8252 76 2517 01 0000 0000 19 34 44 61	0 ... 4	12	9 ... 32	±0.5
NAT6.0A	8252 77 2517 01 0000 0000 19 34 44 61	0 ... 6	18	9...32	±0.5
NAT10.0A	8252 78 2517 01 0000 0000 19 34 44 61	0 ... 10	30	9...32	±0.5
NAT16.0A	8252 79 2517 01 0000 0000 19 34 44 61	0 ... 16	48	9 ... 32	±0.5
NAT25.0A	8252 80 2517 01 0000 0000 19 34 44 61	0 ... 25	75	9 ... 32	±0.5
NAT40.0A	8252 81 2517 01 0000 0000 19 34 44 61	0 ... 40	120	9 ... 32	±0.5
NAT100.0A	8252 83 2517 01 0000 0000 19 34 44 61	0 ... 100	300	9 ... 32	±0.5
NAT250.0A	8252 74 2517 01 0000 0000 19 34 44 61	0 ... 250	750	9 ... 32	±0.5
NAT400.0A	8252 84 2517 01 0000 0000 19 34 44 61	0 ... 400	1000	9 ... 32	±0.5
NAT600.0A	8252 86 2517 01 0000 0000 19 34 44 61	0 ... 600	1500	9 ... 32	±0.5
NAT2.5V	8252 75 2517 01 0000 0000 17 34 44 61	0 ... 2.5	7.5	15 ... 32	±0.5
NAT4.0V	8252 76 2517 01 0000 0000 17 34 44 61	0 ... 4	12	15 ... 32	±0.5
NAT6.0V	8252 77 2517 01 0000 0000 17 34 44 61	0 ... 6	18	15 ... 32	±0.5
NAT10.0V	8252 78 2517 01 0000 0000 17 34 44 61	0 ... 10	30	15 ... 32	±0.5
NAT16.0V	8252 79 2517 01 0000 0000 17 34 44 61	0 ... 16	48	15 ... 32	±0.5
NAT25.0V	8252 80 2517 01 0000 0000 17 34 44 61	0 ... 25	75	15 ... 32	±0.5
NAT40.0V	8252 81 2517 01 0000 0000 17 34 44 61	0 ... 40	120	15 ... 32	±0.5
NAT100.0V	8252 83 2517 01 0000 0000 17 34 44 61	0 ... 100	300	15 ... 32	±0.5
NAT250.0V	8252 74 2517 01 0000 0000 17 34 44 61	0 ... 250	750	15 ... 32	±0.5
NAT400.0V	8252 84 2517 01 0000 0000 17 34 44 61	0 ... 400	1000	15 ... 32	±0.5
NAT600.0V	8252 86 2517 01 0000 0000 17 34 44 61	0 ... 600	1500	15 ... 32	±0.5
NAT2.5AM	8252 75 2517 32 0000 0000 19 33 44 61	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0AM	8252 76 2517 32 0000 0000 19 33 44 61	0 ... 4	12	9 ... 32	±0.5
NAT6.0AM	8252 77 2517 32 0000 0000 19 33 44 61	0 ... 6	18	9 ... 32	±0.5
NAT10.0AM	8252 78 2517 32 0000 0000 19 33 44 61	0 ... 10	30	9 ... 32	±0.5
NAT16.0AM	8252 79 2517 32 0000 0000 19 33 44 61	0 ... 16	48	9 ... 32	±0.5
NAT25.0AM	8252 80 2517 32 0000 0000 19 33 44 61	0 ... 25	75	9 ... 32	±0.5
NAT40.0AM	8252 81 2517 32 0000 0000 19 33 44 61	0 ... 40	120	9 ... 32	±0.5
NAT60.0AM	8252 82 2517 32 0000 0000 19 33 44 61	0 ... 60	180	9 ... 32	±0.5
NAT100.0AM	8252 83 2517 32 0000 0000 19 33 44 61	0 ... 100	300	9 ... 32	±0.5
NAT160.0AM	8252 85 2517 32 0000 0000 19 33 44 61	0 ... 160	480	9 ... 32	±0.5
NAT250.0AM	8252 74 2517 32 0000 0000 19 33 44 61	0 ... 250	750	9 ... 32	±0.5
NAT400.0AM	8252 84 2517 32 0000 0000 19 33 44 61	0 ... 400	1000	9 ... 32	±0.5
NAT600.0AM	8252 86 2517 32 0000 0000 19 33 44 61	0 ... 600	1500	9 ... 32	±0.5

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAT2.5PS	8252 75 2517 32 0000 0000 PS 44 61 ZS	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0PS	8252 76 2517 32 0000 0000 PS 44 61 ZS	0 ... 4	12	9 ... 32	±0.5
NAT6.0PS	8252 77 2517 32 0000 0000 PS 44 61 ZS	0 ... 6	18	9 ... 32	±0.5
NAT10.0PS	8252 78 2517 32 0000 0000 PS 44 61 ZS	0 ... 10	30	9 ... 32	±0.5
NAT16.0PS	8252 79 2517 32 0000 0000 PS 44 61 ZS	0 ... 16	48	9 ... 32	±0.5
NAT25.0PS	8252 80 2517 32 0000 0000 PS 44 61 ZS	0 ... 25	75	9 ... 32	±0.5
NAT40.0PS	8252 81 2517 32 0000 0000 PS 44 61 ZS	0 ... 40	120	9 ... 32	±0.5
NAT60.0PS	8252 82 2517 32 0000 0000 PS 44 61 ZS	0 ... 60	180	9 ... 32	±0.5
NAT100.0PS	8252 83 2517 32 0000 0000 PS 44 61 ZS	0 ... 100	300	9 ... 32	±0.5
NAT160.0PS	8252 85 2517 32 0000 0000 PS 44 61 ZS	0 ... 160	480	9 ... 32	±0.5
NAT250.0PS	8252 74 2517 32 0000 0000 PS 44 61 ZS	0 ... 250	750	9 ... 32	±0.5
NAT400.0PS	8252 84 2517 32 0000 0000 PS 44 61 ZS	0 ... 400	1000	9 ... 32	±0.5
NAT600.0PS	8252 86 2517 32 0000 0000 PS 44 61 ZS	0 ... 600	1500	9 ... 32	±0.5

Parameters				
Name	Standard setting (accessory ZS)	Value range	Short name	Customer adjustment (accessory ZC)
Switch point SP1 (hysteresis mode) Upper switch point FH1 (window mode)	75 % Measuring range	> RP1, FL1 (2 ... 99 %) Hysteresis ≥ 1 % FS	SP1	
Reset point RP1 (hysteresis mode) Lower switch point FL1 (window mode)	25 % Measuring range	< SP1, FH1 (1 ... 98 %) Hysteresis ≥ 1 % FS	RP1	
Switch point SP2 (hysteresis mode) Upper switch point FH2 (window mode)	75 % Measuring range	> RP2, FL2 (2 ... 99 %) Hysteresis ≥ 1 % FS	SP2	
Reset point RP2 (hysteresis mode) Lower switch point FL2 (window mode)	25 % Measuring range	< SP2, FH2 (1 ... 98 %) Hysteresis ≥ 1 % FS	RP2	
Switch point delay time SP1 / RP1 (hysteresis mode) Switch point delay time FH1 / FL1 (window mode)	0	0; approx. 2^x [ms], x = 3, 4 ... 16	dS1	
Switch point delay time SP2 / RP2 (hysteresis mode) Switch point delay time FH2 / FL2 (window mode)	0	0; approx. 2^x [ms], x = 3, 4 ... 16	dS2	
Functions switching output 1	Hysteresis, closer (Hno)	Hysteresis NO (Hno), Hysteresis NC (Hnc) Window NO (Fno), Window NC (Fnc)	ou1	
Functions switching output 2	Hysteresis, closer (Hno)	Hysteresis NO (Hno), Hysteresis NC (Hnc) Window NO (Fno), Window NC (Fnc) Device ready	ou2	

Parameterization of switching points

The switching points, delay times and output functions can be parameterized via Smartphone app (Android). The SMI Sensor Master Interface required for the parameterization as well as the Smartphone are not part of the delivery. The Android App is available for free in the Google Play Store.

- Ordering No. SMI Sensor Master Interface: F90170
- Data sheet SMI Sensor Master Interface: H72618



Specifications

Electrical Data	Output / supply voltage	4 ... 20 mA: 24 (9...32) VDC 0 ... 6 VDC ranges: 24 (9...32) VDC 0 ... 10.1 VDC ranges: 24 (15...32) VDC 0.5 ... 4.5 VDC ratiom., 10 ... 90% U_{supply} : 5 ± 0.25 VDC 1 or 2 PNP transistors: 24 (9...32) VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Power-on delay time pressure transmitters	100 ms
	Power-on delay time pressure switches	50 ms + switching delay time
	Inverse-polarity protection, short-circuit strength @ 25°C during 5 min.	4...20 mA: to $U_s = 32$ VDC 0 ... 6 VDC ranges, 0 ... 10.1 VDC ranges: bis $U_s = 28$ VDC 0.5...4.5 VDC ratiometric: to $U_s = 14$ VDC 1 or 2 PNP transistors: to $U_s = 32$ VDC
Environmental conditions	Media temperature	-40°C ... +125°C
	Ambient temperature	-40°C ... +125°C (Cable PVC 22: -5°C ... +60°C) (Cable PUR 24: -40°C ... +70°C) (Cable Radox Tenuis 88: -40°C ... +100°C)
	Protection ¹⁾	IP65, IP67, IP68
	Humidity	Max. 95 % relative
	Vibration	15 g RMS (20...2000 Hz) (EN60068-2-64) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C) (EN60068-2-6)
	Shock	50 g / 11 ms 100 g / 6 ms Male electrical plug M12x1 (EN60068-2-27) ²⁾
EMC Protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical Data	Sensor (wetted parts)	1.4542 (AISI630)
	Pressure connection (wetted parts)	1.4542 (AISI630)
	Housing	1.4301 (AISI304)
	Sealing	FPM/EPDM/NBR
	Male electrical connector	See ordering information
	Weight	appr. 50 g
	Mounting torque	25 Nm

¹⁾ See electrical connection

²⁾ For electrical connections 32 and 35

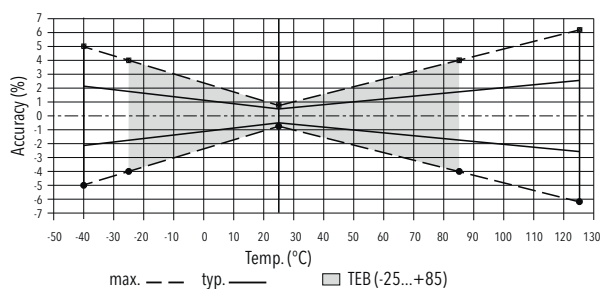
Analogue output

Accuracy	TEB @ -25 ... +85°C	[% FS typ.]	± 1.75
	Accuracy @ +25°C	[% FS typ.]	± 0.5
	NLH @ +25°C (BSL)	[% FS typ.]	± 0.2
	TC zero point and span	[% FS/K typ.]	± 0.03
	Long term stability 1 year	[% FS typ.]	± 0.1
Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure		

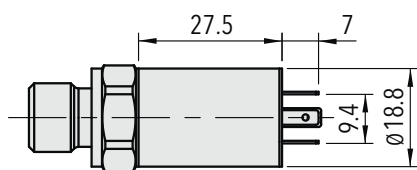
Switching output

Accuracy	TEB @ -25 ... +85°C	[% FS typ.]	± 1.75
	Accuracy @ +25°C	[% FS typ.]	± 0.5
	Long term stability 1 year	[% FS typ.]	± 0.1
Setting range of switchpoints	1 ... 99 % FS		
Distance switch point	≥ 1.0 % FS		
Switch point > reset point	Switchpoint > reset point		
Switching resistance	≤ 3 Ω		
Output function	Hysteresis, Window; normally closed (NO), normally open (NC)		
Switching current	-40°C ... +85°C	(Ambient and media temperature)	≤ 400 mA, total of both switching outputs
	+85°C ... +125°C	(Ambient and media temperature)	≤ 200 mA, total of both switching outputs
Current limiting	integrated		
Life time	> 100 x 10 ⁶ cycles		
Delay time	0; approx. 2 ^x [ms], x = 3, 4 ... 16		
Switching frequency	max. 60 Hz (at switching delay time = 0)		

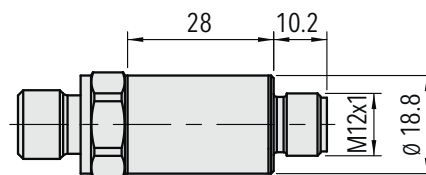
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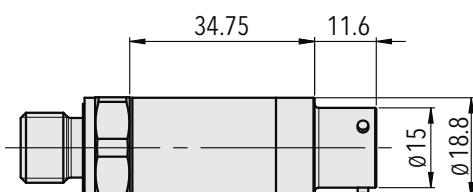
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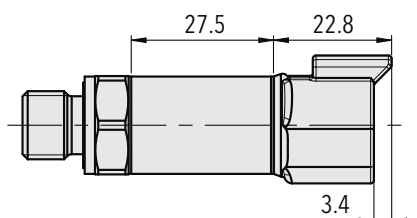
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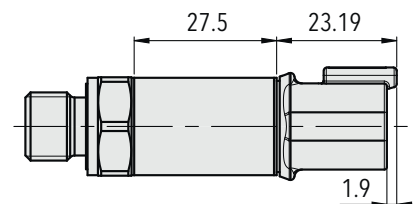
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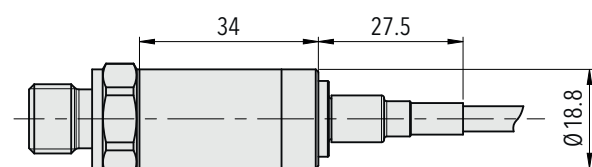
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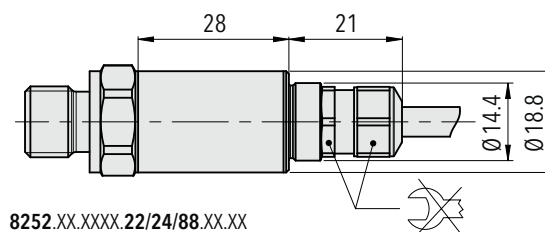
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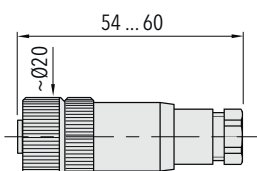
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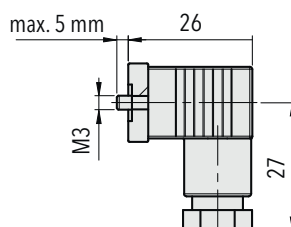
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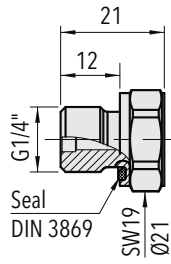


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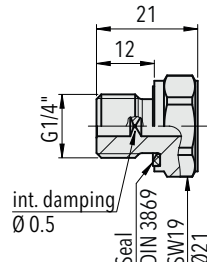


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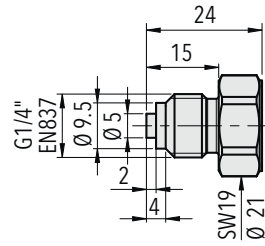
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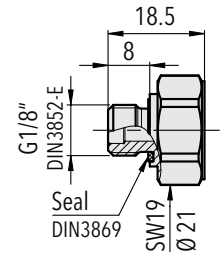
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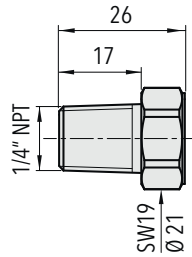
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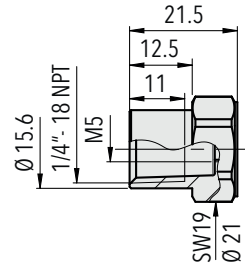
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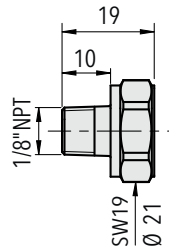
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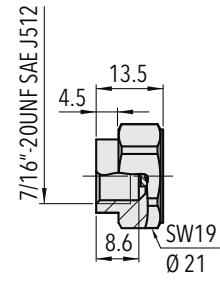
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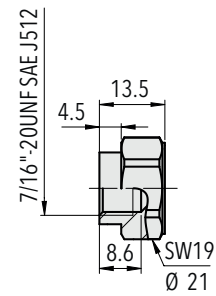
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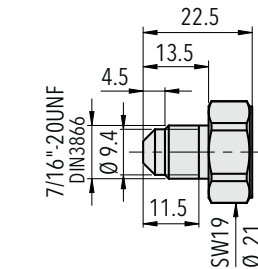
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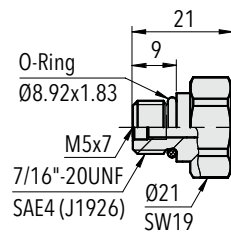
8252.XX.XX24.XX.XX.XX



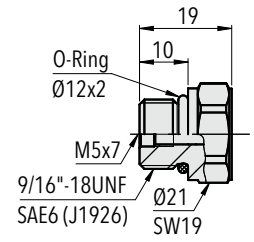
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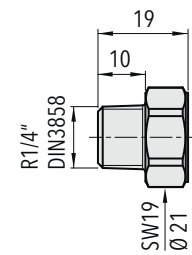
8252.XX.XX18.XX.XX.XX



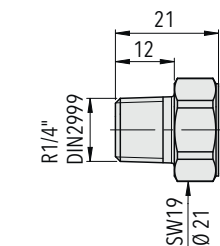
8252.XX.XX42.XX.XX.XX



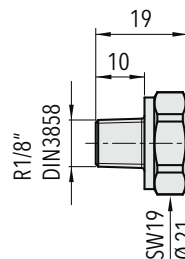
8252.XX.XX61.XX.XX.XX



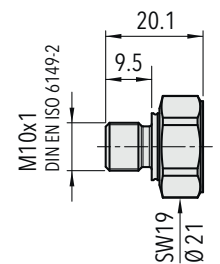
8252.XX.XX19.XX.XX.XX



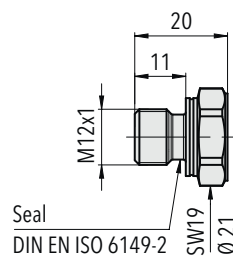
8252.XX.XX20.XX.XX.XX



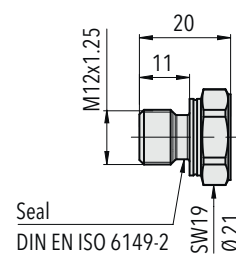
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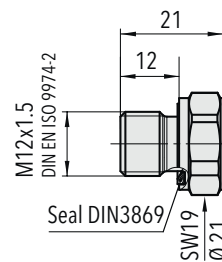
8252.XX.XX32.XX.XX.XX



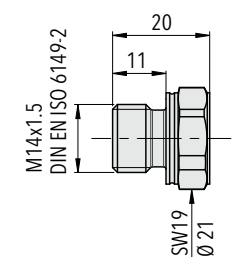
8252.XX.XX64.XX.XX.XX



8252.XX.XX65.XX.XX.XX

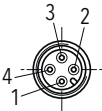
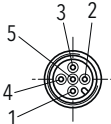
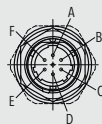
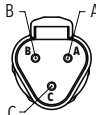
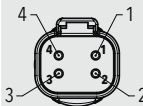
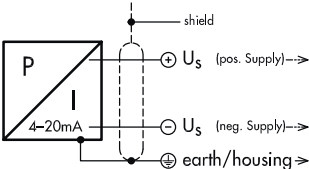
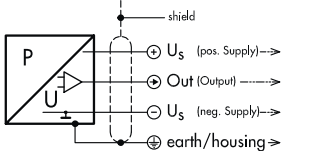


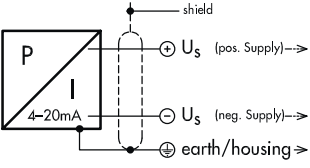
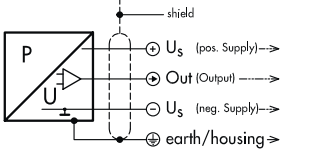
8252.XX.XX49.XX.XX.XX



8252.XX.XX31.XX.XX.XX

Electrical connection

		Protection / electrical connection														
		IP65 ^{1) 2)}		IP67 ^{1) 2)}						IP67 ^{1) 2)}		IP67, IP68 ^{1) 4)}		IP67, IP68 ^{1) 4)}		
Industrial standard Contact distance 9.4 mm		M12x1						MIL-C 26482		DT04-3P 3-pole		DT04-4P 4-pole				
01		32						35		02		D3		D4		
																
Output signal	 8252..XX.XXXX.XX.19		90	92		E1	E6	F4	F5	G2			F0			
		2	2	1	1	1	1	1	1	2/3	4	A	A	A	2	
		1	4	2	3	2	4	2	3	1	1	B	B	C	1	
		4	3	4	4	4	2			4	5	E			3	
Output signal	 8252..XX.XXXX.XX.13/14/16/17/20/22/ 23/24/25/26/28/29		91	E3	E9		95	96	E2	F6	F7	G1		F3	F1	
		1	2	3	1	1	1	1	1	1	1	1	2	A	A	2
		2	1	1	3	2	3	4	3	2	2	4	4	B	C	4
		3	4	2	2	3	4	3	2	4	3	3	3	C/D	B/D	1
	4	3	4	4	4	2	2	4	3			5	E	E	3	

		Protection / electrical connection		
		IP67, IP68 ^{2) 3)}	IP67 ²⁾	IP67, IP68 ^{2) 3)}
		Cable 22/24	Cable 08	Cable 88
				
Output signal	 8252..XX.XXXX.XX.19	white	red	brown
		brown yellow	black green	black yellow / green
Output signal	 8252..XX.XXXX.XX.13/14/16/17/20/22/ 23/24/25/26/28/29	white green brown yellow	red white black green	brown blue black yellow / green

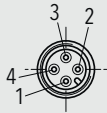
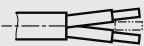
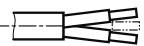
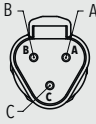
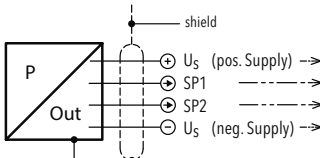
¹⁾ Provided female connector is mounted according to instructions

²⁾ Ventilation via male electric plug/cable end

³⁾ IP68, 20 bar, 30 min.

⁴⁾ IP68, 100 mbar, 4h

Electrical connection

Protection / electrical connection											
IP67 ^{1) 2)}		IP67, IP68 ^{2) 3)}		IP67 ²⁾		IP67, IP68 ^{2) 3)}		IP67, IP68 ^{1) 4)}			
M12x1 4-pole 32 		Cable 22/24 		Cable 08 		Cable 88 		DT04-3P 3-pole D3 			
Output signal			PS	T1	PS	T1	PS	T1	PS	T1	
			1 4 2 3	1 4 - 3	white green yellow brown	white green - brown	red white green black	red white - black	brown blue yellow / green black	brown blue - black	A C - B
			8252.XX.XXXX.XX.PS/T1								

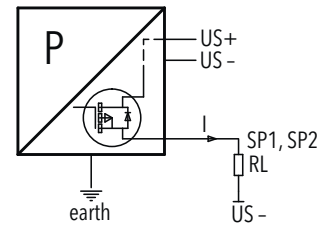
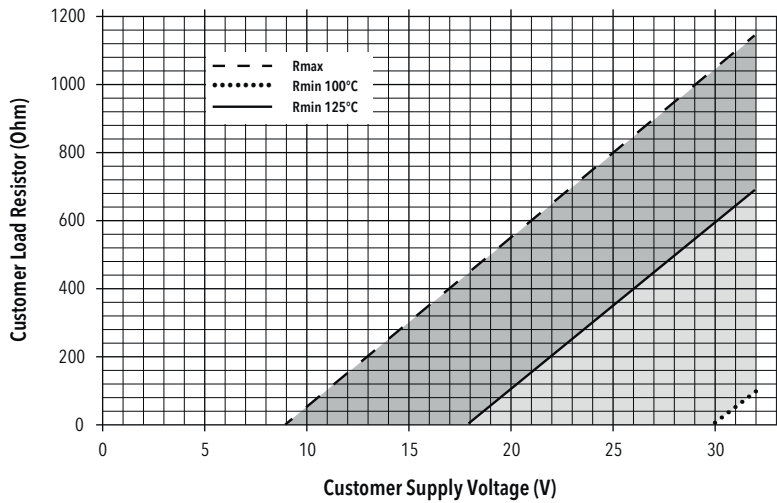
¹⁾ Provided female electrical plug is mounted according to instructions

²⁾ Ventilation via male electric plug/cable end

³⁾ IP68, 20 bar, 30 min.

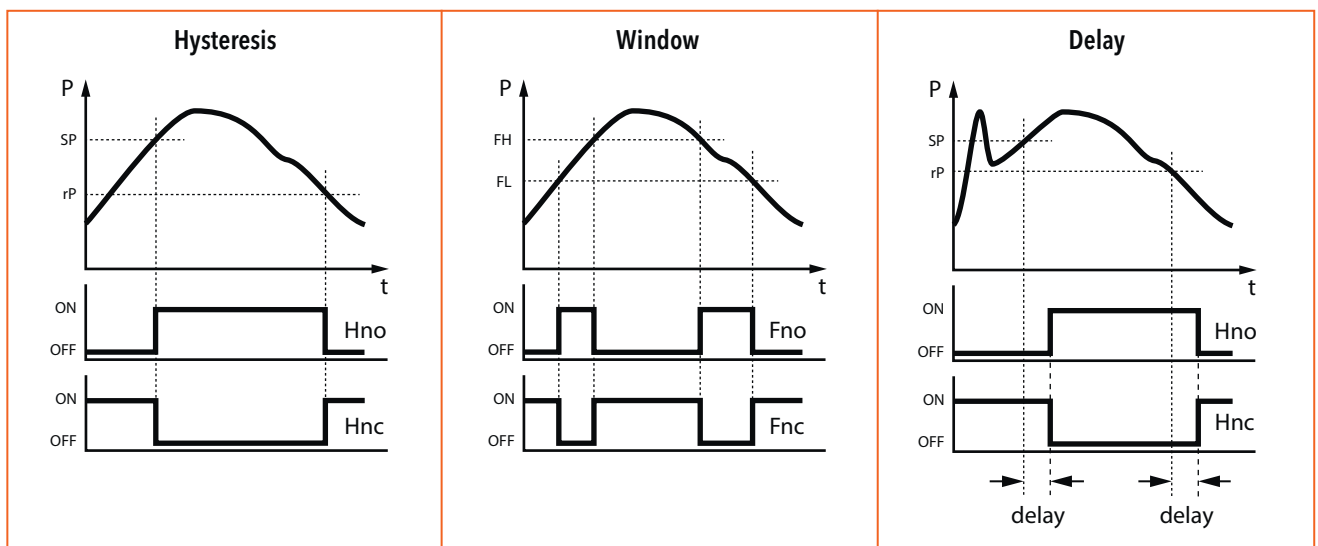
⁴⁾ IP68, 100 mbar, 4h

4...20mA: min./max resistor vs. supply voltage @ Pmax = 100%



Connection of loads to switch contacts

Functions switching output



Additional information

Documents

Data sheet

www.trafag.com/H72303

Instructions

www.trafag.com/H73303

Flyer

www.trafag.com/H70666

Additional specifications

Electrical Data	Resistance of insulation	>10 MΩ, 50 VDC
	Dielectric strength	50 VAC, 50 Hz
	Current limiting output signal	4 ... 20 mA: 24 mA (Overload)
Environmental conditions	Storage temperature	-40°C ... +125°C (Cable PVC 22: -5°C ... +60°C) (Cable PUR 24: -40°C ... +70°C) (Cable Radox Tenuis 88: -40°C ... +100°C)

Analogue output

Accuracy	TEB @ -25 ... +85°C	[% FS max.]	± 4.0
	Accuracy @ +25°C	[% FS max.]	± 0.75
	NLH @ +25°C (BSL)	[% FS max.]	± 0.35
	NLH @ +25°C (BSL through 0)	[% FS typ.]	± 0.3
	NLH @ +25°C (BSL through 0)	[% FS max.]	± 0.5
	Repeatability	[% FS typ.]	± 0.05
	TC zero point and span	[% FS/K max.]	± 0.05
	Long term stability 1000h @ 85°C	[% FS typ.]	± 0.1
	Temperature hysteresis	[% FS typ.]	± 0.2
		[% FS max.]	± 0.35
	Deviation of zero signal and final value @ 25°C	[% FS typ.]	± 0.5
		[% FS max.]	± 0.75

Switching output

Accuracy	TEB @ -25 ... +85°C	[% FS max.]	± 4.0
	Accuracy @ +25°C	[% FS max.]	± 0.75
	Repeatability	[% FS typ.]	± 0.05
	Long term stability 1000h @ 85°C	[% FS typ.]	± 0.1