

Industrial Pressure Transmitter



Product description

The economical pressure transmitter ECT 8472 is based on the tried and true ECT line of transmitters. The wide media temperature range from -25 to 125°C in combination with a comprehensive set of features and options makes the ECT 8472 pressure transmitter a versatile solution suitable for most industrial applications.

Applications

- Machine tools
- Hydraulics
- Water treatment

Features

- Excellent media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Wide temperature range

EMC: 2014/30/EU

S.I. 2016 No. 1091

RoHS/Reach compliant

UL-listed version

Technical Data

Measuring principle	Thick-film-on-ceramic
Measuring range	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric
Media temperature	-25°C ... +125°C 400 bar/5000 psi: -10°C ... +125°C
Ambient temperature	-25°C ... +125°C Cable PVC 22: -5°C ... +60°C Cable PUR 24: -20°C ... +70°C Cable Raychem 08: -20°C ... +100°C

Additional information

Data sheet www.trafag.com/H72324
 Instructions www.trafag.com/H73324
 Accessories www.trafag.com/H72258
 Video <https://youtu.be/GLq3yOjGUas>

Ordering information/Type code

Ordering information/Type code				8472	XX	XX	XX	XX	XX	XX	
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	Pressure-measurement-range [psi]	Over pressure [psi]	Burst pressure [psi]					
	0 ... 1.0	2	3	71	0 ... 15	30	40	G1			
	0 ... 1.6	3.2	4.8	73	0 ... 20	40	60	G3			
	0 ... 2.5	5	7.5	75	0 ... 30	60	90	G5			
	0 ... 4	8	12	76	0 ... 50	100	150	G6			
	0 ... 6	12	15	77	0 ... 100	200	250	G7			
	0 ... 10	20	25	78	0 ... 150	300	375	G8			
	0 ... 16	32	40	79	0 ... 200	400	600	GA			
	0 ... 25	50	75	80	0 ... 250	500	625	G9			
	0 ... 40	80	100	81	0 ... 400	800	1200	H0			
	0 ... 60	120	180	82	0 ... 500	1000	1250	H1			
	0 ... 100 ²⁾	200	300	83	0 ... 1000	2000	3000	H2			
	0 ... 160 ²⁾	320	480	85	0 ... 1500 ²⁾	3000	4500	H3			
	0 ... 250 ²⁾	500	750	74	0 ... 2000 ²⁾	4000	6000	H5			
	0 ... 400 ²⁾³⁾	800	1000	84	0 ... 3000 ²⁾	6000	9000	G4			
	Option 5P: Fivefold overpressure				0 ... 5000 ²⁾³⁾	10000	12500	H4			
	0 ... 2.5	12.5	18	55							
	0 ... 4	20	30	56							
	0 ... 6	30	48	57							
	0 ... 10	50	75	58							
	0 ... 16	80	120	59							
	0 ... 25	125	180	60							
	0 ... 40	200	300	61							
	0 ... 60	300	480	62							
Sensor	Relative pressure, Material pressure connection and housing: 1.4305 (AISI303)							57			
	Relative pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) ²⁾							59			
	Relative pressure, Material pressure connection and housing: 1.4462 (AISI318LN) ²⁾							52			
	Relative pressure, titanium grade 5 ²⁾							53			
	Absolute pressure, Material pressure connection and housing: 1.4305 (AISI303) ⁴⁾							87			
	Absolute pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) ²⁾⁴⁾							89			
	Absolute pressure, Material pressure connection and housing: 1.4462 (AISI318LN) ²⁾⁴⁾							82			
	Absolute pressure, titanium grade 5 ²⁾⁴⁾							83			

8472 XX XX XX XX XX XX

Pressure connection	G1/4" female					10
	G1/4" male					17
	G1/2" male DIN 3852-A ²⁾					21
	G1/2" male DIN 3852-E ²⁾					41
	G1/2" male DIN 3852-E, with inner cone ²⁾⁵⁾⁶⁾					59
	1/4" NPT male, ANSI B1.20.1 ²⁾					30
	1/8" NPT male, ANSI B1.20.1 ⁷⁾					43
	7/16"-20UNF-2A male, SAE J1926-3 (Light Duty) ²⁾⁸⁾					42
	7/16"-20UNF male, DIN 3866 ⁴⁾					18
	7/16"-20UNF female, SAE J512 with valve opener ⁴⁾					24
	7/16"-20UNF female, SAE J512 without valve opener ⁴⁾					44
	9/16"-18UNF-2A male, SAE J1926-3 (Light Duty), Seal: Accessory 61 ²⁾⁸⁾⁹⁾					61
R1/4" male, DIN 3858					19	
Electrical connection	Male electrical connector EN 175301-803-A (DIN 43650-A), Material PA					05
	Male electrical connector M12x1, 5-pole, Material PBT					35
	Cable PUR (Screwed cable gland PA 6-3), -20°C ... +70°C ¹⁰⁾¹¹⁾					24
	Cable PVC (Screwed cable gland PA 6-3), -5°C ... +60°C ¹⁰⁾¹¹⁾¹²⁾					22
	Cable Raychem (Screwed cable gland PA 6-3), -20°C ... +100°C ¹⁰⁾¹¹⁾¹²⁾					08
	3 Way male Delphi MetriPack 1.5 sealed connector, Material PA66					51
Output signal	Output signal	Load resistance	I (supply)	U (supply)		
	4 ... 20 mA	(U _s - 9 V) / 20 mA	(= signal output)	9 ... 30 VDC		19
	0 ... 5 VDC	≥ 2.5 kΩ	≤ 20 mA	10 ... 30 VDC		14
	1 ... 6 VDC	≥ 5.0 kΩ	≤ 20 mA	10 ... 30 VDC		16
	0 ... 10 VDC	≥ 5.0 kΩ	≤ 20 mA	15 ... 30 VDC		17
	0.5 ... 4.5 VDC ratiom.	≥ 5.0 kΩ	≤ 20 mA	5 VDC ± 0.25 VDC ratiom.		23
Accessories	Seal FKM (-20°C ... +125°C)					61
	Seal CR ≤ 100 bar (-25°C ... +100°C) ¹³⁾					62
	Seal EPDM (-25°C ... +125°C)					63
	Pressure peak damping element ø 1.0 mm, material 1.4305 ¹⁴⁾					40
	Pressure peak damping element ø 0.4 mm, material 1.4305 (sensors 57, 87) resp. 1.4404 (sensors 52, 53, 59, 82, 83, 89) ¹⁴⁾					44
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C For cable diameter 4 ... 9 mm, flammability standard UL94-V0					46
	Female electrical plug EN 175301-803-A (DIN 43650-A)/Silicone, -40°C ... +125°C For cable diameter 4 ... 9 mm, flammability standard UL94-V0					56
	Female electrical plug EN 175301-803-A (DIN43650-A)/NBR, -40°C ... +90°C For cable diameter 4 ... 9.5 mm, flammability standard UL94-V2					58
	Female electrical plug M12x1, 5-pole					33
	Cable length 1.5 m					1M
	Cable length 3.0 m					3M
	Cable length 5.0 m					5M
	Housing nut for electrical connection EN175301-803-A (DIN43650-A) secured with Loctite (max. 85°C)					L9
	Multiple packaging ¹⁵⁾					VM
	UL-listed version					UL

Footnotes: See next page

Ordering information/Type code

- ⁰¹⁾ Extended overpressure as well as customized pressure ranges upon request, see table „Customised measuring ranges“
- ⁰²⁾ Upon request, whereas minimum order quantities may apply
- ⁰³⁾ Media -10°C ... +125°C
- ⁰⁴⁾ max. 40 bar
- ⁰⁵⁾ Only for sensors 52 and 82
- ⁰⁶⁾ max. 60 bar / overpressure 120 bar
- ⁰⁷⁾ Only for sensors 59 and 89 and electrical connections 35 (others on request)
- ⁰⁸⁾ Measuring range max. 350 bar according to SAE J1926-3 (Light Duty)
- ⁰⁹⁾ Only for sensors 59 and 89
- ¹⁰⁾ Cable length see accessories (max. length 50 m, in 5-meter sections)
- ¹¹⁾ IP68-rated protection: Immersion depth max. 3 m, Media +10°C ... +35°C
- ¹²⁾ Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)
- ¹³⁾ Only for pressure connections 10, 30, 43, 18, 24, 44, 19
- ¹⁴⁾ Not for pressure connections 10, 18, 24, 44
- ¹⁵⁾ The order quantity must be a multiple of 50, only for electrical connections 05 and 35

i Vacuum measuring ranges: Measuring ranges below 0 bar (e.g. -1 bar ... 0 bar) are available as special pressure ranges

i Reversed calibration: A reversed calibration is also possible for measuring ranges below 0 bar, with the signals 4 ... 20 mA (code 19), 1 ... 6 VDC (code 16) and 0 ... 10 VDC (code 17). The signal zero point is at 0 bar, the signal end point at -1 bar, additional configurations on request.

Compatibility matrix pressure connection and accessories

Code	Pressure connection	Damping		Seal		
		Ø 0.4 mm (Code 44)	Ø 1.0 mm (Code 44)	FKM ¹⁾ (Code 61)	CR ²⁾ (Code 62)	EPDM ¹⁾ (Code 63)
10	G1/4" female				✓	
17	G1/4" male	✓	✓	✓		✓
21	G1/2" male DIN 3852-A	✓	✓	✓		✓
41	G1/2" male DIN 3852-E	✓	✓	✓		✓
59	G1/2" male DIN 3852-E, with inner cone	✓	✓	✓		✓
30	1/4" NPT male, ANSI B1.20.1	✓	✓		✓	
43	1/8" NPT male, ANSI B1.20.1	✓	✓		✓	
42	7/16"-20UNF male, SAE4 (J1926)	✓	✓	✓		
18	7/16"-20UNF male, DIN 3866				✓	
24	7/16"-20UNF female, SAE J512 with valve opener				✓	
44	7/16"-20UNF female, SAE J512 without valve opener				✓	
61	9/16"-18UNF male, SAE6 (J1926)	✓	✓	✓		
19	R1/4" male, DIN 3858	✓	✓		✓	

¹⁾ Seal: inner and outer

²⁾ Seal: inner

Ordering-no. for process connections

	Combination with UL
Measuring range	All ranges on datasheet
Sensor	All codes on datasheet
Pressure connection	All codes on datasheet
Electrical connection	All codes on datasheet
Output signal	All codes except PS and T1
Accessories	All codes except GA, GS and GU

Signal processing

Code	Cut-off frequency f_c	Rise time (10 ... 90 % nominal pressure)	Output signal			
			4 ... 20 mA	0.5 ... 4.5 VDC ratiometric	0 ... 6 VDC	0 ... 10 VDC
GA ¹⁾	11 Hz	32 ms	x	x	-	-
Standard specification	350 Hz	1 ms	x	x	x	x

¹⁾ Upon request, whereas minimum order quantities may apply

Customised measuring ranges

min. pressure [bar] ¹⁾	max. pressure [bar] ²⁾	min. span [bar]	max. span [bar]	Overpressure [bar]	Code
-1	1	≥ 0.5	≤ 1.2	2	21
-1	2	≥ 0.8	< 2	3.2	22
-1	4	≥ 2	≤ 4.5	8	24
-1	6	> 4.5	≤ 7	12	25
-1	10	> 7	≤ 11	20	26
-1	16	> 11	≤ 17	32	27
-1	25	> 17	≤ 26	50	28
-1	40	> 26	≤ 41	80	29
-1	60	> 41	≤ 61	120	30
-1	100	> 61	≤ 101	200	31
-1	160	> 101	≤ 161	320	35
-1	250	> 161	≤ 251	500	32
-1	400	> 251	≤ 401	800	34

¹⁾ Minimum pressure = Lowest zero point, start of measuring range (relative)

²⁾ Maximum pressure = Highest pressure, end of measuring range (relative)

i For absolute pressure sensors, the measuring range must include the point 1000 mbar (absolute)

i For relative pressure sensors, measuring range must include the point 0 bar (relative)

Standard configurations

Product No.	Type Code	Pressure range [bar]	Overpressure max. [bar]	Supply [VDC]	Signal output
ECT1.0A	8472 71 5717 05 0000 0000 19 58 61	0 ... 1	3.2	9 ... 30	4 ... 20 mA
ECT1.6A	8472 73 5717 05 0000 0000 19 58 61	0 ... 1.6	3.2	9 ... 30	4 ... 20 mA
ECT2.5A	8472 75 5717 05 0000 0000 19 58 61	0 ... 2.5	5	9 ... 30	4 ... 20 mA
ECT4.0A	8472 76 5717 05 0000 0000 19 58 61	0 ... 4	8	9 ... 30	4 ... 20 mA
ECT6.0A	8472 77 5717 05 0000 0000 19 58 61	0 ... 6	12	9 ... 30	4 ... 20 mA
ECT10.0A	8472 78 5717 05 0000 0000 19 58 61	0 ... 10	20	9 ... 30	4 ... 20 mA
ECT16.0A	8472 79 5717 05 0000 0000 19 58 61	0 ... 16	32	9 ... 30	4 ... 20 mA
ECT25.0A	8472 80 5717 05 0000 0000 19 58 61	0 ... 25	50	9 ... 30	4 ... 20 mA
ECT40.0A	8472 81 5717 05 0000 0000 19 58 61	0 ... 40	80	9 ... 30	4 ... 20 mA
ECT60.0A	8472 82 5717 05 0000 0000 19 58 61	0 ... 60	120	9 ... 30	4 ... 20 mA
ECT1.0V	8472 71 5717 05 0000 0000 17 58 61	0 ... 1	3.2	15 ... 30	0 ... 10 VDC
ECT1.6V	8472 73 5717 05 0000 0000 17 58 61	0 ... 1.6	3.2	15 ... 30	0 ... 10 VDC
ECT2.5V	8472 75 5717 05 0000 0000 17 58 61	0 ... 2.5	5	15 ... 30	0 ... 10 VDC
ECT4.0V	8472 76 5717 05 0000 0000 17 58 61	0 ... 4	8	15 ... 30	0 ... 10 VDC
ECT6.0V	8472 77 5717 05 0000 0000 17 58 61	0 ... 6	12	15 ... 30	0 ... 10 VDC
ECT10.0V	8472 78 5717 05 0000 0000 17 58 61	0 ... 10	20	15 ... 30	0 ... 10 VDC
ECT16.0V	8472 79 5717 05 0000 0000 17 58 61	0 ... 16	32	15 ... 30	0 ... 10 VDC
ECT25.0V	8472 80 5717 05 0000 0000 17 58 61	0 ... 25	50	15 ... 30	0 ... 10 VDC
ECT40.0V	8472 81 5717 05 0000 0000 17 58 61	0 ... 40	80	15 ... 30	0 ... 10 VDC
ECT60.0V	8472 82 5717 05 0000 0000 17 58 61	0 ... 60	120	15 ... 30	0 ... 10 VDC

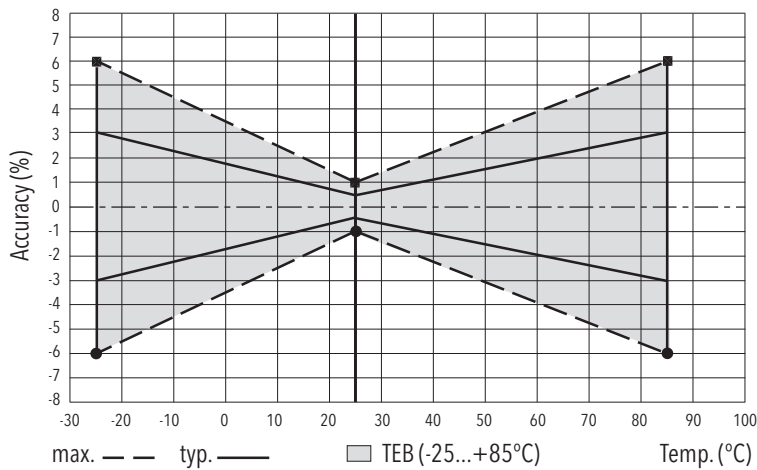
Specifications

Electrical data	Output / supply voltage	4 ... 20 mA: 24 (9 ... 30) VDC 0 ... 5 VDC: 24 (10 ... 30) VDC 1 ... 6 VDC: 24 (10 ... 30) VDC 0 ... 10 VDC: 24 (15 ... 30) VDC 0.5 ... 4.5 VDC ratiometric
	Power-on delay time	max. 1.5 s
	Rise time of supply voltage	typ. 1 ms, 10 ... 90 % nominal pressure
	Inverse-polarity protection, short-circuit strength @ 25°C during 5 min.	4 ... 20 mA: to $U_s = 30$ VDC 0 ... 10 VDC, 0 ... 5 VDC, 1 ... 6 VDC: to $U_s = 30$ VDC 0.5 ... 4.5 VDC ratiometric: to $U_s = 5.25$ VDC
	Resistance of insulation	Type 14/16/17/23: > 10 M Ω , 100 VDC Type 19: > 10 M Ω , 250 VDC
	Dielectric strength	Type 14/16/17/23: 100 VAC, 50 Hz Type 19: 250 VAC, 50 Hz
	Current limiting output signal	4 ... 20mA: appr. 25 mA max.
Environmental conditions	Media temperature	-25°C ... +125°C 400 bar/5000 psi: -10°C ... +125°C
	Ambient temperature	-25°C ... +125°C Cable PVC 22: -5°C ... +60°C Cable PUR 24: -20°C ... +70°C Cable Raychem 08: -20°C ... +100°C
	Storage temperature	-20°C ... +40°C
	Protection	IP65, IP67, IP68
	Humidity	max. 95 % relative
	Vibration	15 g RMS (20 ... 2000 Hz) (EN 60068-2-64) 15 g Sinus (10 ... 2000 Hz) (EN 60068-2-6)
	Shock	50 g/11 ms (EN 60068-2-27)
EMC protection	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical data	Sensor (wetted parts)	Ceramic, Al ₂ O ₃ (96 %)
	Pressure connection (wetted parts)	57/87: 1.4305 (AISI303) 59/89: 1.4404/1.4435 (AISI316L) 52/82: 1.4462 (AISI318LN) 53/83: Titanium Grade 5
	Housing	57/87: 1.4305 (AISI303) 59/89: 1.4404/1.4435 (AISI316L) 52/82: 1.4462 (AISI318LN) 53/83: Titanium Grade 5
	Sealing	FKM 70 Sh, CR, EPDM
	Male electrical connector	See ordering information
	Mounting torque	15 ... 20 Nm

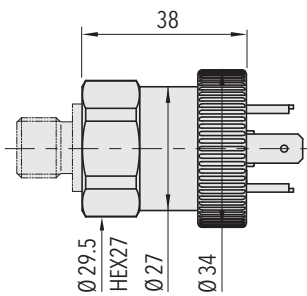
Accuracy

	≥ 0 bar
	≤ 1000 bar
TEB typ. @ -25 ... +85°C	$\pm 3.0\%$ FS typ.
Accuracy @ 25°C typ.	$\pm 0.5\%$ FS typ.
NLH @ 25°C (BSL) typ.	$\pm 0.2\%$ FS typ.
TC zero point and span typ.	$\pm 0.03\%$ FS/K typ.
Long term stability 1 year typ.	$\pm 0.3\%$ FS typ.

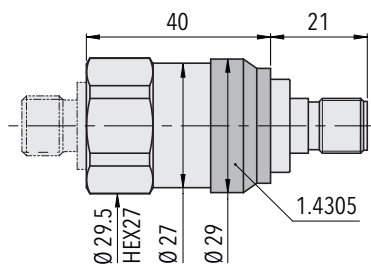
Measuring accuracy



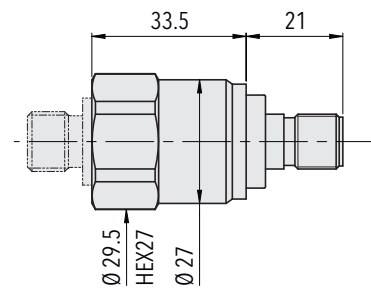
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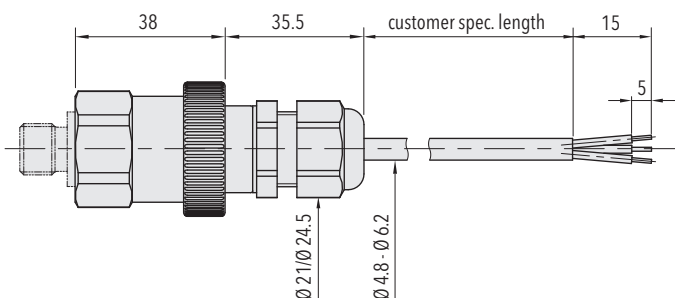
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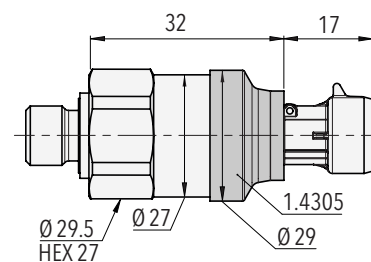
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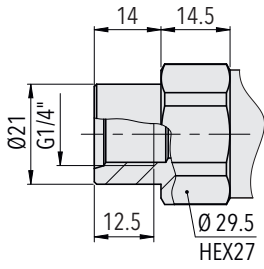
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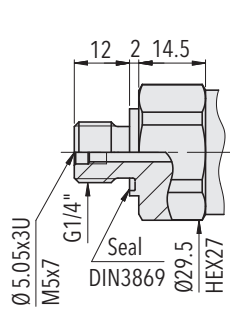
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ECT 8472

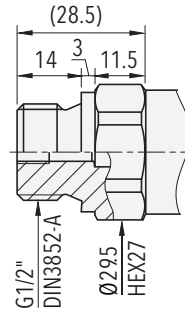
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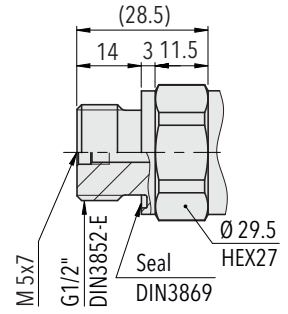
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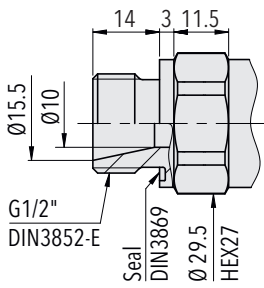
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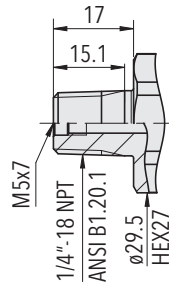
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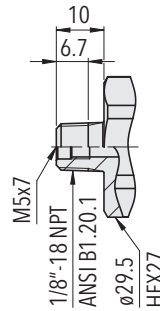
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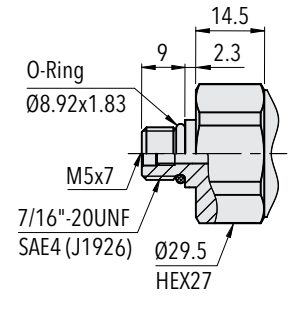
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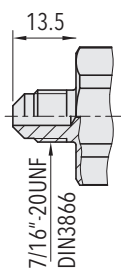
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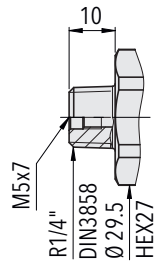
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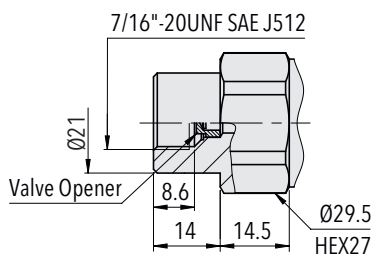
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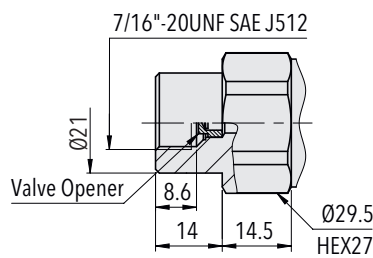
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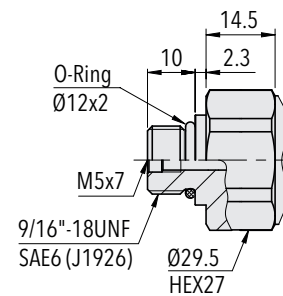
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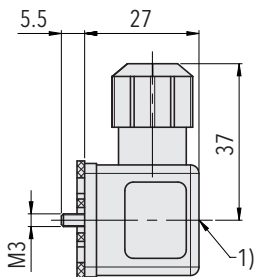
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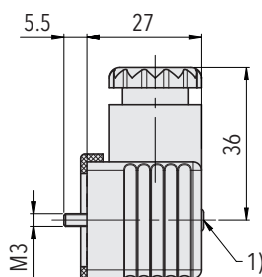
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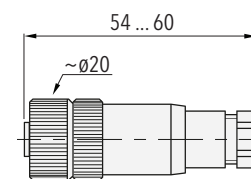
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8472.XX.XXXX.XX.XX.58



8472.XX.XXXX.XX.XX.33

¹⁾Tightening torque 50 ... 60 Ncm

Electrical connection

	Industrial standard EN175301-803A ²⁾	M12x1, 5-pole				
Electrical connection type code	05	35				
IP protection	IP65 ¹⁾	IP67 ¹⁾				
Ambient temperature	-25°C ... +125°C	-25°C ... +125°C				
UL-rated ambient temperature	-20°C ... +80°C	-20°C ... +80°C				
Pin assignment type code		92		G9	94	H1
Output signal 8472.xx.xxxx.xx.19						
	2 1 Earth	1 2 Earth	4 1 5	1 3 4	1 3 5	1 2 5
Pin assignment type code		98	97			E8
Output signal 8472.xx.xxxx.xx.14/16/17/23						
	2 3 1 Earth	3 1 2 Earth	1 3 2 Earth	2 4 3 5	1 3 2 5	

¹⁾ Provided female electrical plug is mounted according to instructions

²⁾ Ventilation via male electric plug/cable end

³⁾ Only cable versions or female electrical plug with shield connection

i Empty 'Pin Assignment Type Code' field: Default pinout

Electrical connection

	Cable ²⁾	Cable ²⁾	Cable ²⁾
Electrical connection type code	22	24	08
IP protection	IP68, max. 3m	IP68, max. 3m	IP68, max. 3m
Ambient temperature	-5°C ... +60°C	-20°C ... +70°C	-25°C ... +125°C
UL-rated ambient temperature	-5°C ... +60°C	-20°C ... +70°C	-20°C ... +80°C
Pin assignment type code			
Output signal 8472.xx.xxxx.xx.19 	White Brown Yellow	White Brown Yellow	Red Black Green
Pin assignment type code			
Output signal 8472.xx.xxxx.xx.14/16/17/23 for DC 	White Green Brown Yellow	White Green Brown Yellow	Red White Black Green

¹⁾ Provided female electrical plug is mounted according to instructions

²⁾ Ventilation via male electric plug/cable end

³⁾ Only cable versions or female electrical plug with shield connection

i Empty 'Pin Assignment Type Code' field: Default pinout

Electrical connection

3 Way M MetriPack 1.5 sealed connector



Electrical connection type code	51	
IP protection	IP67 ¹⁾	
Ambient temperature	-40°C ... +125°C	
UL-rated ambient temperature	-20°C ... +80°C	
Pin assignment type code		E4
Output signal 8472.XX.XXXX.XX.19 	1 2	1 3
Pin assignment type code		99
Output signal 8472.XX.XXXX.XX.14/16/17/23 	1 3 2	1 2 3

¹⁾ Provided female electrical plug is mounted according to instructions

i Empty 'Pin Assignment Type Code' field: Default pinout

Reliable quality

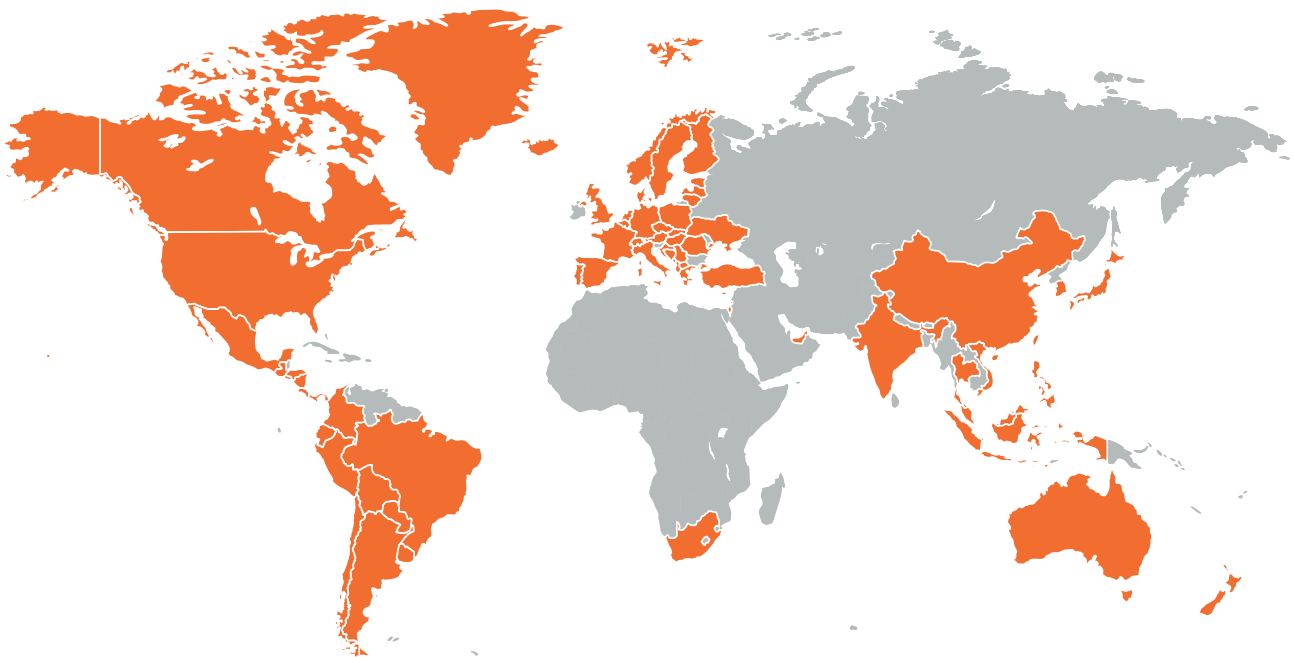
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Pressure transmitters



Electronic pressure switches



Mechanical pressure switches



Pressure gauge



Thermostats



Temperature transmitters



Gas density

Specifications - Additional information

EMC protection	ESD	EN/IEC 61000-4-2 4 kV contact/8 kV air: no malfunction
	RFI	EN/IEC 61000-4-3 10 V/m: 0.01...2700 MHz (Output 4...20 mA, @ 600...900 MHz, increased error < 3 %)
	Burst	EN/IEC 61000-4-4 Burst ± 2 kV: no interference
	Surge	EN/IEC 61000-4-5 Surge 1.2/50 μ ± 1 kV: no interference
	Conducted immunity	EN/IEC 61000-4-6 Radio-frequency: no interference

Accuracy - Additional information

	≥ 0 bar ≤ 1000 bar
TEB max. @ -25 ... +85°C	± 6.0 % FS max.
Accuracy @ 25°C max.	± 1.0 % FS max.
NLH @ 25°C (BSL) max.	± 0.35 % FS max.
NLH @ 25°C (BSL through 0) typ.	± 0.3 % FS typ.
NLH @ 25°C (BSL through 0) max.	± 0.5 % FS max.
Repeatability	± 0.05 % FS typ.
TC zero point and span max.	± 0.06 FS/K max.
Long term stability 1000h @ 85°C	± 0.3 % FS typ. ± 0.6 % FS max.
Temperature hysteresis	± 0.2 % FS typ. ± 0.6 % FS max.

Modifications

Index	Data	Description
1	06/2008	New data sheet
2	09/2008	Page 1: Short term completed with ECT, Page 2 and 3: Pressure connection 1.4305 with ordering code 57 added Page 2: Overpressure & burst pressure adjusted
3	02/2009	Page 2 (1,3,4) Pressure Range: (0...60, 0...100,0...160,0...250 bar: in preparation) Pressure connections: No. 17, 30; Execution: no. 35, 22; Outputs: 14, 17, 23; Accessories: no. 98; absolut options added Page 5 additional specifications: Accuracy long term stability 1000h@85°C: 0.3% FS typ. added in addition to 0.6 % FS max.
4	09/2009	Output 16 (1...6 VDC) added Media temperature adapted: ECE - 25...+85°C and ECT-25...+125°C
5	12/2009	Page 2: Cable lenght added 1M, 3M, 5M
6	04/2010	Page 1, 2 & 3: Measuring range changed from 250 to 400 bar Page 2 & 4: Pressure connection G1/2" male, accessory 21 added Page 2 & 3: Sensor 59 (relative) and 89 (absolute) added (1.4435 ECT) Page 2: Range 0...1 bar, over pressure and burst pressure amended Page 2: Notes regarding customized ranges on request added with example for extended overpressure
a	12/2010	Index changed to „a“ Page 2: Pressure connection 30 & 21 with notation 1) „please ask us“ Page 2: O-Ring CR with notation ≤ 100 bar Page 2, 4: Accessories: Outputs 14,16,17,23: additional special electrical connection No. 97 added
b	01/2011	Spec-Sheet: Deviation of zero signal and final value @ 25°C changed to ± 0.5 % d.S. typ. ± 1.0 % d.S. max „Electrical data“ Resistance of insulation modified for types 14,16,17, 23 & 19 Dielectrical strenght added for types 14,16,17,23 and 19
c	05/2012	Page 2: Measuring range in psi added Page 5: Dimension of execution 05, 35, 22 modified
d	06/2012	All pages: Phase out of all brass variants, type ECE, Sensor types 58 and 88
e	07/2012	Page 2: (IP68 max. 3m) Medium +10°C...+35°C max. 1bar rel/abs added Page 5: Electrical Connection added IP68 max. 3m
f	11/2012	Page 2,5: Integration of male electrical plug „Packard Metri Pack“
g	05/2013	Page 2, 4: New sensors added; for relative pressure measurement: Nr. 52 steel 1.4462 & Nr. 53 Titan Grade 5; for absolute pressure measurement: Nr. 82 steel 1.4462 & Nr. 83 Titan Grade 5 Page 2, 5: Pressure connection 52 added, G 3/4" Frontal membrane Page 5: Dimensions of all executions modified (05, 35, 51, 22) Page 5: Electrical connections: both diagrams modified Page 6: Spec-sheet: „Deviation of zero signal and final value“ removed
h	09/2013	Page 2: Male electrical plug industrial standard added with code 01 Page 3: Accessories: Female electrical connector industrial standard code 34 added Page 3: Pressure peak damping elements 0.4 mm added and 0.3 mm deleted Page 5: Dimensions and electrical connection adapted
i	10/2013	Page 3: Pressure peak damping element 0.4 mm removed; 0.3mm & 0.5mm added with ordering code 43 & 45 (previous state)
k	02/2014	Page 2: Footnote 5): More materials and cables with venting tubes for low pressure ranges upon request
l	03/2014	Page 5: Dimensions corrected executions 05 and 22
m	05/2014	New layout NLH @ 25°C (BSL) as main specification and NLH @ 25°C (BSL through 0) as additional specification Temperature indication added to O-ring type code elements Electrical connection: remark added „ventilation via male electrical plug/cable“
n	06/2014	Correction of IP protection for cable 22 Correction of graphics „electrical connection“ (shield)

Modifications

Index	Date	Description
o	11/2014	Page 6: Electrical connection 01 Industrial standard: correction of indication 'contact distance 9.4' mm instead of EN175302-803A Page 2/5: Removal of pressure connection G3/4" frontal membrane
p	03/2015	Re-launch of pressure connection G3/4" frontal membrane
q	04/2015	Additional specifications: Correction of temperature hysteresis from $\pm 0.4\%$ to $\pm 0.6\%$ FS max.
r	11/2015	Page 3 Accessories: code 62: O-Ring CR ≤ 100 bar changed to ≤ 60 bar / Pressure peak damping element 0.4 mm, code 44 added Page 2, 3: Electrical connection code 22: Specification of temperature limit PVC cable -5 ... +60°C
s	01/2016	Page 2: Range 71/G1: Overpressure corrected to 2 bar/30 psi and burst pressure corrected to 3 bar/40 psi Page 5: Dimension welding flange 1.4301 for G3/4" frontal membrane (C27805) added
t	03/2016	Page 3: Footnote 8 corrected „Only for pressure connections 10 and 30 (concerning O-Ring 62) Page 4: Addition of inverse-polarity protection, short-circuit strength @ 25°C during 5 min.: 4...20 mA: to US = 30 VDC; 0...10 VDC, 0...5 VDC, 1...6 VDC: to US = 30 VDC; 0.5...4.5 VDC ratiometric: to US = 5.25 VDC
u	04/2016	Page 2: Footnote 7 complemented with information „only for pressure ranges ≤ 10 bar or 150 psi" (concerning pressure connection 52 G3/4" frontal membrane) Page 2: Sensors 52, 53, 82, 83: Footnote 4 added „please ask us"
v	07/2016	Page 3: New accessory code E4: Special electrical connection: Pin 1 + , Pin 3 - (only for output 4...20mA and male electrical plug Packard Metri Pack 3-poles) Page 3: Code 99: information for electrical connection specified: only for output 0...5 VDC, 1...6 VDC, 0...10 VDC, 0.5...4.5 VDC and male electrical plug Packard Metri Pack 3-poles
w	09/2016	Page 4: Attributes Sensor, Pressure connection and housing separated: Sensor (wetted parts): Ceramic, Al2O3 (96 %); Pressure connection (wetted parts) 57/87: 1.4305 (AISI303, 59/89: 1.4404/1.4435 (AISI316L), 52/82: 1.4462 (AISI316LN), 3/83: Titanium Grade 5 (housing not changed)
x	01/2017	Page 1: New Features Page 2: Electrical connection: Code 41, 42 and 19 added Page 2/3: footnote 9 and 10 added Page 3: Standardproducts ECT100.0A, ECT250.0A, ECT100.0V, ECT250.0V removed Page 6: New Dimensions Nr. XX19, XX41, XX42, XX.35 New, X717. and X942. 35, 51 and 01
	02/2017	No index change Page 2: Typecode 52: (max. nominal pressure 60 bar) removed
y	03/2017	Page 2, 6: Pressure connection code 30, 1/4" NPT (typecode and dimensions): standard designation ANSI B1.20.1 added
z	09/2017	Page 2, 7: Addition of pressure connections: 1/8" NPT male, code 43 and footnote 11; 7/16"-20UNF male, code 18; 7/16"-20UNF female, code 24 Page 1, 2, 4, 5: Launch of electrical connections code 24 (PUR) and code 08 (Raychem), modification of cable connection code 22; all cable connections with new dimension on page 6 Page 2: Relative sensor typecodes with new text „pressure connection and housing material" and with AISI designation
aa	02/2018	Page 3: Footnote 8 corrected, only for pressure connections 10, 30, 43, 42, 18, 24, 19 Page 2: Male electrical plug Packard Metri Pack, code 51 = footnote 9 removed
ab	03/2018	Page 3: Special electrical connection: Pin 1 + , Pin 3 - , Pin 5 Ground (for male electrical plug 35, M12x1, 5-pole), code 94 added Page 3: Special electrical connection: Pin 1 out , Pin 2 - , Pin 3 + (only for output signals 14, 16, 17, 23 and male electrical plug 01 industrial standard), code E3 added
ac	01/2019	Frontpage: Features restructured and No 4 changed to frontal membrane optional Page 2: Pressure connections 18, 24: footnote 3 added (max. 40 bar) footnote 3 modified to max. 40 bar, „absolute range" removed; Page 2, 5: Electrical connection code 68 removed; page 3: Pressure peak damping elements code 43 $\varnothing 0.3$ mm and 45 $\varnothing 0.5$ mm removed; Page 3: Pressure peak damping element code 40: Info „for pressure connections 17 and 30" removed, description „Material 1.4305" and footnote 10: not for pressure connections 10,18,24,52;

Modifications

Index	Data	Description
ac	01/2019	<p>continuation Index ac:</p> <p>Page 3: Pressure peak damping element code 44: description „Material 1.4305 (sensors 57,87) resp. 1.4404 (sensors 52,53,59,82,83,89)“ added and footnote 10: not for pressure connections 10,18,24,52;</p> <p>Page 3: Female electrical connector EN 175301-803-A (DIN43650-A) code 58: Info „NBR -40...+90°C“ added;</p> <p>Page 3: New female electrical connector EN 175301-803-A (DIN43650-A) /Silicone, -40...+125°C, code 56 added;</p> <p>Page 2: Footnote 7 changed from ...only for pressure ranges ≤ 10 bar or 150 psi to ≤ 25 bar or 400 psi;</p> <p>Page 2: Pressure connection code 42: Limit max. 35 MPa removed and standard J1926 integrated in typecode = footnote 10 removed;</p>
ac	01/2019	<p>continuation Index ac:</p> <p>Page 3: New ordering code for multiple packaging added, code VM with footnote 12 (the order quantity must be a multiple of 50 only for electrical connections 05 und 35);</p> <p>Page 7: Dimension pressure connection 52 frontal membrane: \varnothing 10 modified to $\sim \varnothing$ 10.5;</p> <p>Page 3: Table „Standard products“: new articles 1.6A, 1.6V, 4.0A, 4.0V, 60.0A, 60.0V added;</p> <p>Page 6: Dimension code 35 „old shape“ removed, dimension code 35 text „new shape“ removed, dimension for cables: measure 19.5 removed; dimension pressure connection code 17 changed (same like 8283);</p> <p>Page 1, 4: Ambient temperature changed to -25...125°C</p>
ad	05/2019	Page 2: Measuring range Code G3 changed from 45 and 70 psi to 40 and 60 psi
ae	09/2019	<p>Page 2: Launching of option 5P (fivefold overpressure) measuring ranges code 55, 56, 57, 58, 59, 60, 61, 62</p> <p>Page 3: Addition of new connector code 46 as well as information to flammability standard UL94-V0 for connector 46/56 and UL94-V2 for connector 58, new drawings for female electrical plugs 46/56 and 58</p> <p>Page 8: New dimensions (7 pcs.) for frontal membrane G3/4" each with flare nut (Bördelmutter) and directly crimped: M12x1.5 code 35, Mini DIN, code 01, Packard, code 51 as well as cable version 22/24/08</p> <p>Page 9: Dimension of pressure connection G1/4" female, code 10, changed</p> <p>Page 9: Dimension frontal membrane, code 52 corrected</p>
ae	09/2019	<p>continuation of Index ae:</p> <p>Page 9: New pressure connection added: G1/2" male DIN3852-E with inner cone, code 59, footnote 4 and 13</p> <p>Page 3: Information about reverse calibration added</p> <p>Frontpage: Addition of NLH @ 25°C (BSL) typ. values in table „Technical Data“</p>
af	01/2020	Page 2, 9: Pressure connection 9/16"-18UNF m, SAE6 (J1926) code 61 added
ag	11/2020	<p>Page 2: Pressure connection Code 59 new footnote</p> <p>Page 7: Dimensions ...05.XX.. and ...22/24/05.XX... 36-38 with male thread 48.5-50.5 with female thread removed</p> <p>Page 9: Welding flange for G3/4" frontal membrane (1.4301) changed to Welding flange (AISI 316L) for G3/4" frontal membrane</p>
ah	01/2021	<p>Page 2: Electrical connection code 35 old and new shape removed</p> <p>Page 5: Vibration 4g (10...2000Hz) changed to 15g RMS (20...2000Hz) and 15g Sinus (10...2000Hz)</p> <p>Schock 50g/8ms changed to 50g/11ms (EN60068-2-27)</p>
ai	03/2021	<p>Frontpage: Frontal membrane optional removed, Wide temperature range added</p> <p>Page 2: Pressure connection Code 52 removed</p> <p>Page 8: all Dimensions removed with 8472.XX.XX52... and Welding flange</p> <p>Page 3: Footnote 7) removed; Footnote 8) 42 removed</p>
ak	06/2021	<p>Page 2/6: Electrical connection Code 01 removed, Pressure connection Code 44 without valve opener added</p> <p>Page 3: Accessories Code 34 removed; Footnote 11) Code 01 removed, Footnote 8) and 10) Code 44 added</p> <p>Page 7/8: Dimensions 8472.XX.X....01.XX.XX and 8472.XX.XXXX.XX.XX.34 removed; 8472.XX.XX24.XX..., 8472.XX.XX42.XX..., and 8472.XX.XX61.XX.... changed, 8472.XX.XX44.XX... added</p>
al	03/2022	Page 2: Measuring range: psi Code GA added
am	03/2023	Page 2: Pressure connection Code 42 and 61 new footnote 7) Measuring range max. 350 bar according to SAE J1926-3 (Light Duty)
an	06/2023	Page 3: Output signal: I(supply) Code 19 (=Signal output) added; Code 14, 16, 17, 23 ≤ 10 mA changed to ≤ 20 mA

Modifications

Index	Date	Description
ao	08/2023	Page 3/6: Electrical connection new Pin out Code G9
ap	10/2023	Page 2: Electrical connection: Code 51 new footnote 16) Do not use for new designs as this option will be phased out soon. Only limited quantities available.
aq	11/2023	Page 3: Footnote 1) see table „Customised measuring ranges“ added; i: For absolute pressure sensors, the measuring range must include the point 1000 mbar (absolute). added Page 4: Table added: Customised measuring ranges Page 6/7: Dimensions: Designation SW changed to HEX
ar	07/2024	Frontpage, 5/6: UL-rated ambient temperature added Page 3: Accessories: new Code H1 and E8 (...5-pole) and UL UL-listed version added Page 6: Electrical connection: pin assignment H1 and E8 added
as	10/2024	Page 8: Dimension 8472.XX.XX21.XX.XX.XX changed
at	05/2025	Page 2/6: Electrical connection Code 51 removed Page 3: Accessories Code E4 and 99 removed; Page 7: Dimensions all with ...XX.51... removed
au	05/2026	Page 1; New Datasheet-Layout; Page 1: Flyer removed and archived Page 2: Typecode; Standardisation of the spelling „Usupply“ to 'Us' Page 3/8/12: Add 3 Way M MetriPack 1.5 sealed connector, Code 51 Page 4/5: Add tabel „Compatibility matrix pressure connector“ and „Ordering information UL“ Page 5: New Infopoint: For relative pressure sensors, measuring range must include the point 0 bar (relative). Page 8/12: Table „Output“ with column titles added ($\geq 0 \text{ bar} \leq 1000 \text{ bar}$) Title diagramm „Measuring accuracy 0.5 %“ changed to „Measuring accuracy“