

PRESSURE TRANSMITTER Serie ECT-8473 / ECTF-8473

The economic pressure transmitter ECT-8473 is based on the tried and true ECT line of transmitter with the wide media temperature range from -25 to 125°C. The enhanced accuracy and the low pressure ranges down to 100 mbar in combination with a comprehensive set of features, materials and options makes the ECT 8473 pressure transmitter an ideal and versatile solution suitable for a wide variety of applications.

ECT-8473



Applications

- Machine tools
- Hydraulics
- Water treatment

Features

- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Frontal membrane optional

ECTF-8473



Technical Data

Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.)
Measuring range	0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi	Media temperature	-25°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-25°C ... +85°C Cable PVC 22: -5°C ... +60°C Cable PUR 24: -20°C ... +70°C Cable Raychem 08: -20°C ... +100°C

Ordering information/type code

				8473 .	XX	XX	XX	XX	XX	XX
Measuring range ¹⁾	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]							
	0 ... 0.1	1.2	2	66	0 ... 1.5	15	30	F6		
	0 ... 0.16	1.2	2	67	0 ... 2	15	30	F7		
	0 ... 0.2	1.2	2	68	0 ... 2.5	15	30	F8		
	0 ... 0.4	1.2	2	69	0 ... 5	15	30	F9		
	0 ... 0.6	2	3	70	0 ... 7.5	30	45	G0		
	0 ... 1.0	2	3	71	0 ... 15	30	45	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 ... 250	500	625	G9		
	0 ... 25	50	75	80	0 ... 400	800	1200	H0		
	0 ... 40	80	100	81	0 ... 500	1000	1250	H1		
Sensor	Relative pressure, Material pressure connection and housing: 1.4305 (AISI303)			54	Absolute pressure, Material pressure connection and housing: 1.4305 (AISI303) ^{2) 3)}			84		
	Relative pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) ²⁾			56	Absolute pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) ^{2) 3)}			86		
	Relative pressure, Material pressure connection and housing: 1.4462 (AISI318LN) ²⁾			50	Absolute pressure, Material pressure connection and housing: 1.4462 (AISI318LN) ^{2) 3)}			80		
	Relative pressure, titanium grade 5 ²⁾			51	Absolute pressure, titanium grade 5 ^{2) 3)}			81		
Pressure connection	G1/4" female								10	
	G1/4" male								17	
	G1/2" male DIN3852-A ²⁾								21	
	G1/2" male DIN3852-E ²⁾								41	
	1/4" NPT male, ANSI B1.20.1 ²⁾								30	
	1/8" NPT male, ANSI B1.20.1 ¹⁰⁾								43	
	7/16" -20UNF male SAE4 ^{2) 8)}								42	
	R1/4" male, DIN3858								19	
Electrical connection	G3/4" frontal membrane ^{2) 4)}								52	
	Male electrical plug EN 175301-803-A, Mat. PA								05	
	Male electrical plug M12x1, 5-pole, Mat. PA (Old shape), Mat. PBT (New shape)								35	
	Male electrical plug industrial standard (contact distance 9.4 mm) Mat. PBT								01	
	Male electrical plug Packard Metri Pack, Mat. PBT ⁹⁾								51	
	Cable PUR, cable gland PA 6-3, -20°C ... +70°C ^{5) 4)}								24	
	Cable PVC, cable gland PA 6-3, -5°C ... +60°C ^{5) 4) 9)}								22	
	Cable Raychem, cable gland PA 6-3, -20°C ... +100°C ^{5) 4) 9)}								08	
Output signal	Cable IP68, Mat. PVC, max. 3m, Medium +10°C ... +35°C, Pmax. 1 bar rel./abs. (old version)								68	
	Signal output	Load resistance	I (supply)	U (supply)						
	4 ... 20 mA	(U _{supply} -9 V) / 20 mA		9 ... 30 VDC					19	
	0 ... 5 VDC	≥ 2.5 kΩ	≤ 10 mA	10 ... 30 VDC					14	
	1 ... 6 VDC	≥ 5.0 kΩ	≤ 10 mA	10 ... 30 VDC					16	
	0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	15 ... 30 VDC					17	
	0.5 ... 4.5 VDC	≥ 5.0 kΩ	≤ 10 mA	5 VDC ± 0.25 VDC ratiom.					23	

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Accessories	Seal FKM (-20°C ... +125°C)	61
	Seal CR ≤ 100 bar (-25°C ... +100°C) ⁷⁾	62
	Seal EPDM (-25°C ... +125°C)	63
	Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	40
	Pressure peak damping element ø 0.3 mm (for pressure connections 17 and 30)	43
	Pressure peak damping element ø 0.5 mm (for pressure connections 17 and 30)	45
	Female electrical connector EN 175301-803-A (DIN43650-A)	58
	Female electrical plug M12x1, 5-pole	33
	Female electrical connector industrial standard	34
	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4 ... 20 mA and male electrical plug EN175301-803-A / DIN43650-A)	92
	Special electrical connection: Pin 1 Out , Pin 2 - , Pin 3 + (only for output 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)	98
	Special electrical connection: Pin 1 + , Pin 2 - , Pin 3 Out (only for output signals 14, 16, 17, 23 and male electrical plug EN 175301-803-A / DIN 43650-A)	97
	Special electrical connection: Pin 1 + , Pin 3 - (only for output 4 ... 20 mA and male electrical plug Packard Metri Pack 3-poles)	E4
	Special electrical connection: Pin 1 + , Pin 2 Out Pin 3 - (only for output signals 14, 16, 17, 23 and male electrical plug Packard Metri Pack 3-poles)	99
	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

¹⁾ Extended overpressure as well as customized pressure ranges upon request

²⁾ Please ask us

³⁾ Only for ranges: ≥ 400 mbar or 5 psi

⁴⁾ Not for sensors 54 and 84, only for pressure ranges ≤ 10 bar or 150 psi

⁵⁾ Cable length see accessories (max. length 50 m, in 5-meter sections)

⁶⁾ Protection IP68: Immersion depth max. 3 m, Media +10°C ... +35°C

⁷⁾ Only for pressure connections 10 and 30

⁸⁾ According to norm J1926, max. 35 MPa

⁹⁾ Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)

¹⁰⁾ Only for sensors 56 and 86 and electrical connections 01, 35, 51 (others on request)



Identical construction for refrigeration:

Data sheet No. H72323

Standard products (extra short lead time)

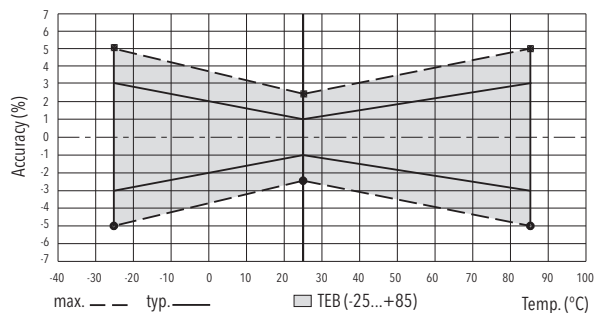
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Pressure connection	Signal output	Accuracy @ 25°C typ. [%]
ECT0.1A	8473 66 5417 05 0000 0000 19 58 61	0 ... 0.1	2	G1/4" male	4 ... 20 mA	1.0
ECT0.2A	8473 68 5417 05 0000 0000 19 58 61	0 ... 0.2	2	G1/4" male	4 ... 20 mA	0.5
ECT0.4A	8473 69 5417 05 0000 0000 19 58 61	0 ... 0.4	2	G1/4" male	4 ... 20 mA	0.5
ECT0.6A	8473 70 5417 05 0000 0000 19 58 61	0 ... 0.6	2	G1/4" male	4 ... 20 mA	0.3
ECT0.1V	8473 66 5417 05 0000 0000 17 58 61	0 ... 0.1	2	G1/4" male	0 ... 10 VDC	1.0
ECT0.2V	8473 68 5417 05 0000 0000 17 58 61	0 ... 0.2	2	G1/4" male	0 ... 10 VDC	0.5
ECT0.4V	8473 69 5417 05 0000 0000 17 58 61	0 ... 0.4	2	G1/4" male	0 ... 10 VDC	0.5
ECT0.6V	8473 70 5417 05 0000 0000 17 58 61	0 ... 0.6	2	G1/4" male	0 ... 10 VDC	0.3
ECTF0.1A	8473 66 5652 05 0000 0000 19 58 61	0 ... 0.1	2	G3/4" frontal membrane	4 ... 20 mA	1.0
ECTF0.2A	8473 68 5652 05 0000 0000 19 58 61	0 ... 0.2	2	G3/4" frontal membrane	4 ... 20 mA	0.5
ECTF0.4A	8473 69 5652 05 0000 0000 19 58 61	0 ... 0.4	2	G3/4" frontal membrane	4 ... 20 mA	0.5
ECTF0.6A	8473 70 5652 05 0000 0000 19 58 61	0 ... 0.6	2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF1.0A	8473 71 5652 05 0000 0000 19 58 61	0 ... 1	2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF1.6A	8473 73 5652 05 0000 0000 19 58 61	0 ... 1.6	3.2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF2.5A	8473 75 5652 05 0000 0000 19 58 61	0 ... 2.5	5	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF4.0A	8473 76 5652 05 0000 0000 19 58 61	0 ... 4	8	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF6.0A	8473 77 5652 05 0000 0000 19 58 61	0 ... 6	12	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF10.0A	8473 78 5652 05 0000 0000 19 58 61	0 ... 10	20	G3/4" frontal membrane	4 ... 20 mA	0.3

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: 5 VDC ratiom.
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Switch-on-delay	Max. 1.5 s
	Inverse-polarity protection, short-circuit strenght @ 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
Environmental conditions	Media temperature	-25°C ... +125°C
	Ambient temperature	-25°C ... +85°C Cable PVC 22: -5°C ... +60°C Cable PUR 24: -20°C ... +70°C Cable Raychem 08: -20°C ... +100°C
	Protection ¹⁾	IP65, IP67, IP68
	Humidity	Max. 95 % relative
	Vibration	4 g (10...2000 Hz)
	Shock	50 g / 8 ms
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)	54/84: 1.4305 (AISI303) 56/86: 1.4404/1.4435 (AISI316L) 50/80: 1.4462 (AISI318LN) 51/81: Titanium Grade 5
	Housing	54/84: 1.4305 (AISI303) 56/86: 1.4404/1.4435 (AISI316L) 50/80: 1.4462 (AISI318LN) 51/81: Titanium Grade 5
	Sealing	FKM 70 Sh, CR, EPDM
	Male electrical plug	See ordering information
	Weight	~ 110 g
	Mounting torque	15 ... 20 Nm

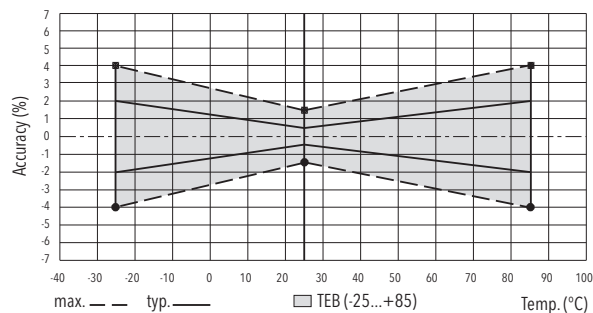
¹⁾ See electrical connection

Accuracy				
Pressure measuring range	[bar]	> 0 ... 0.4	0 ... 0.2	0 ... 0.1
	[psi]	> 0 ... 5	0 ... 0.4	0 ... 0.16
			0 ... 2.5	0 ... 1.5
			0 ... 5	0 ... 2
TEB @ -25 ... +85°C	[% FS typ.]	± 1.0	± 2.0	± 3.0
Accuracy @ +25°C	[% FS typ.]	± 0.3	± 0.5	± 1.0
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.3	± 0.3
TC zero point and span	[% FS/K typ.]	± 0.02	± 0.02	± 0.02
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.2	± 0.2	± 0.2

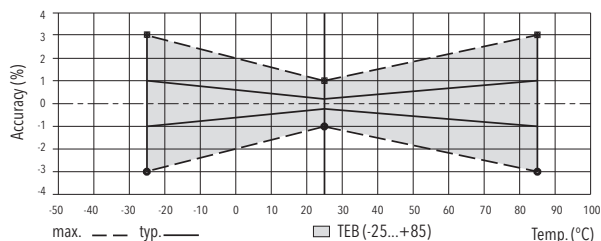
Measuring accuracy 1.0 %



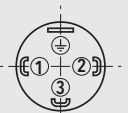
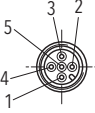
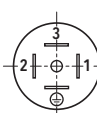
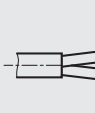
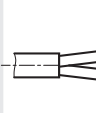
Measuring accuracy 0.5 %



Measuring accuracy 0.3 %



Electrical connection

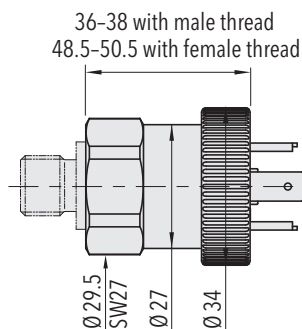
		Protection / electrical connection					
		IP65*)	IP67*)	IP67*)	IP65	IP67/IP68 max. 3m	IP68 max. 3 m
		Industrial standard EN175301-803A **)	M12x1 **) 5-pole	Packard Metri Pack **) 3-pole	Industrial standard Contact distance 9.4 mm **)	Cable**)	Cable **)
		05	35	51	01	24/22/68	08
							
Output signal	Standard	92		E4			
		2	1	4	1	2	
		1	2	1	2	1	
		⊕	⊕	5	⊕	⊕	
						white	red
						brown	black
						yellow	green
		98 97		99			
		2	3	1	1	1	
		3	1	3	2	2	
		1	2	2	3	3	
		⊕	⊕	⊕	⊕	⊕	
						white	red
						green	white
						brown	black
						yellow	green

*) Provided female connector is mounted according to instructions

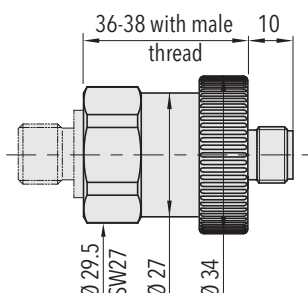
**) Ventilation via male electric plug/cable end

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

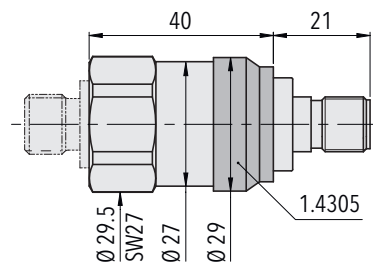
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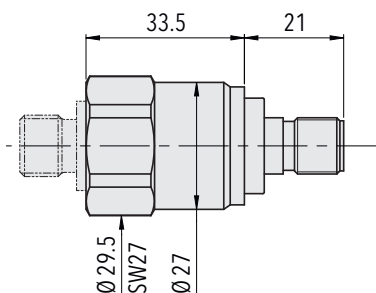
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8473.XX.XXXX.35.XX.XX Old shape

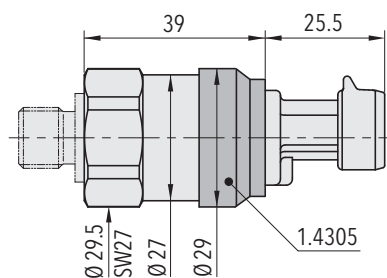


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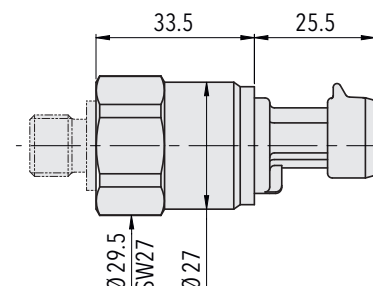


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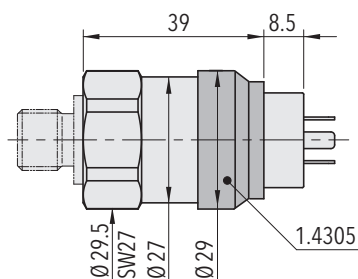


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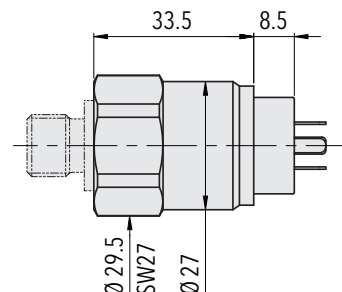


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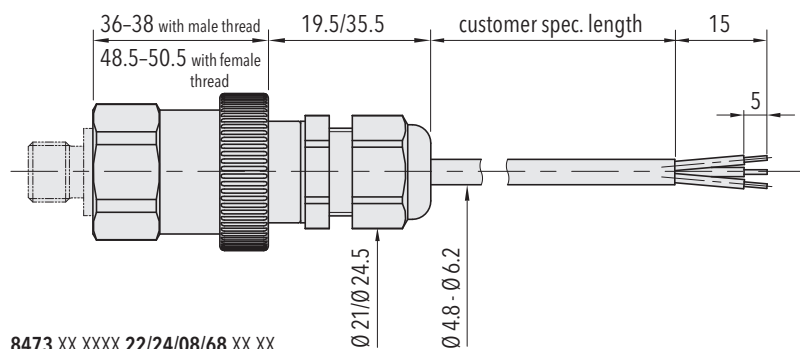


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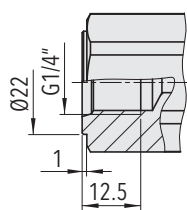
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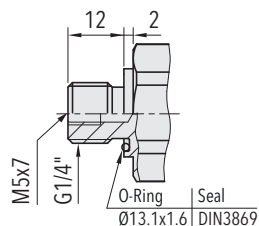


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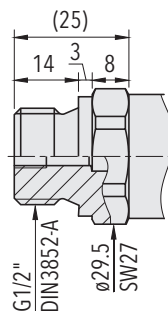
Dimensions



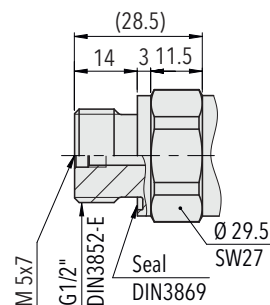
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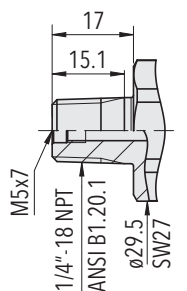
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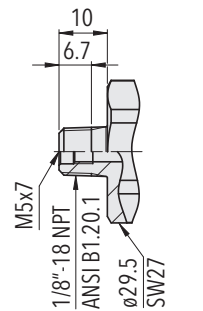
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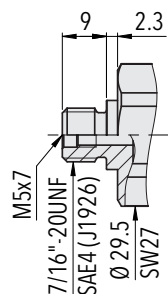
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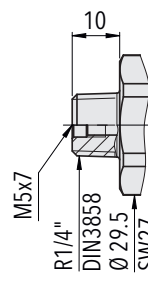
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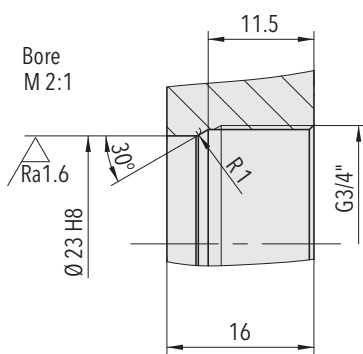
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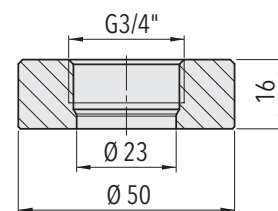
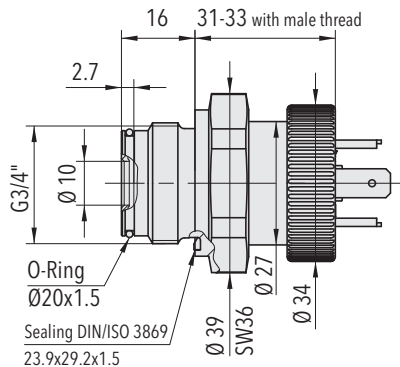
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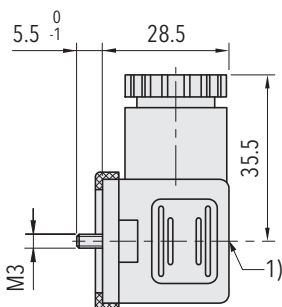
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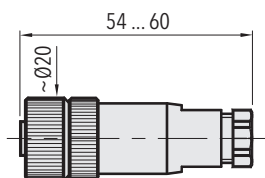


Welding flange for G3/4"
frontal membrane (1.4301)
Ordering No. C27805

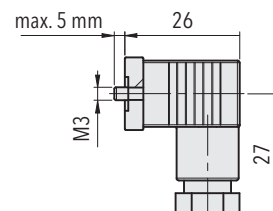


1) Tightening torque 50...60Ncm

8473.XX.XXXX.XX.XX.58



8473.XX.XXXX.XX.XX.33



8473.XX.XXXX.XX.XX.34