INDUSTRIAL PRESSURE TRANSMITTER

enertronic
PROYECTOS Y SUMINISTROS S.A.

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. 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 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
- Frontal membrane optional

03/2021
Data sheet H72324ai
Subject to change

Technical Data			
Measuring principle	Thick-film-on-ceramic	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	Media temperature	-25°C ... +125°C 400 bar/5000 psi: -10°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 ... +125°C Cable PVC 22: -5°C ... +60°C Cable PUR 24: -20°C ... +70°C Cable Raychem 08: -20°C ... +100°C
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ.		

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 ... 250	500	625	G9
0 ... 25	50	75	80	0 ... 400	800	1200	H0
0 ... 40	80	100	81	0 ... 500	1000	1250	H1
0 ... 60	120	180	82	0 ... 1000	2000	3000	H2
0 ... 100 [4]	200	300	83	0 ... 1500 [4]	3000	4500	H3
0 ... 160 [4]	320	480	85	0 ... 2000 [4]	4000	6000	H5
0 ... 250 [4]	500	750	74	0 ... 3000 [4]	6000	9000	G4
0 ... 400 [2] [4]	800	1000	84	0 ... 5000 [2] [4]	10000	12500	H4
Option 5P:	**Fivefold overpressure**						
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	Absolute pressure, Material pressure connection and housing: 1.4305 (AISI303) [3]	87
Relative pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) [4]	59	Absolute pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) [3] [4]	89
Relative pressure, Material pressure connection and housing: 1.4462 (AISI318LN) [4]	52	Absolute pressure, Material pressure connection and housing: 1.4462 (AISI318LN) [3] [4]	82
Relative pressure, titanium grade 5 [4]	53	Absolute pressure, titanium grade 5 [3] [4]	83

Pressure connection

G1/4" female	10
G1/4" male	17
G1/2" male DIN3852-A [4]	21
G1/2" male DIN3852-E [4]	41
G1/2" male DIN3852-E, with inner cone [4] [13] [15]	59
1/4" NPT male, ANSI B1.20.1 [4]	30
1/8" NPT male, ANSI B1.20.1 [11]	43
7/16"-20UNF male, SAE4 (J1926) [4]	42
7/16"-20UNF male, DIN3866 [3]	18
7/16"-20UNF female, SAE J512 with valve opener [3]	24
9/16"-18UNF male, SAE6 (J1926), seal: accessory 61 [4] [14]	61
R1/4" male, DIN3858	19

Electrical connection

Male electrical connector EN 175301-803-A (DIN43650-A), Mat. PA	05
Male electrical connector M12x1, 5-pole, Mat. PBT	35
Male electrical connector Packard Metri Pack, Mat. PBT	51
Male electrical connector, industrial standard (contact distance 9.4 mm), Mat. PBT	01
Cable PUR (Screwed cable gland PA 6-3), -20°C … +70°C [5] [6]	24
Cable PVC (Screwed cable gland PA 6-3), -5°C … +60°C [5] [6] [9]	22
Cable Raychem (Screwed cable gland PA 6-3), -20°C … +100°C [5] [6] [9]	08

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	Signal output	Load resistance	I (supply)	U (supply)	
Output signal	4 ... 20 mA	(Usupply-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 ratiometric	≥ 5.0 kΩ	≤ 10 mA	5 VDC ± 0.25 VDC ratiom.	**23**

Accessories	Seal FKM (-20°C ... +125°C)	**61**
	Seal CR ≤ 100 bar (-25°C ... +100°C) [8]	**62**
	Seal EPDM (-25°C ... +125°C)	**63**
	Pressure peak damping element ø 1.0 mm, material 1.4305 [10]	**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) [10]	**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 (DIN43650-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**
	Female electrical plug industrial standard	**34**
	Special electrical connection: Pin 1 +, Pin 2 - (only for output signal 4 ... 20 mA and male electrical connector 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 connctor 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 connector EN 175301-803-A / DIN 43650-A)	**97**
	Special electrical connection: Pin 1 + , Pin 3 - (only for output 4 ... 20 mA and male electrical connector 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 connector Packard Metri Pack 3-poles)	**99**
	Special electrical connection: Pin 1 +, Pin 3 -, Pin 5 Ground (only for output signal 4 ... 20 mA and male electrical connector 35, M12x1, 5-pole)	**94**
	Special electrical connection: Pin 1 Out, Pin 2 -, Pin 3 +, Pin 4 Ground (only for output signals 14, 16, 17, 23 and male electrical connector 01, industrial standard)	**E3**
	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 [12]	**VM**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Media -10°C ... +125°C
[3] max. 40 bar
[4] Upon request
[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
[8] Only for pressure connections 10, 30, 43, 18, 24, 19
[9] Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)
[10] Not for pressure connections 10, 18, 24, 52
[11] Only for sensors 59 and 89 and electrical connections 01, 35, 51 (others on request)
[12] The order quantity must be a multiple of 50, only for electrical connections 05 and 35
[13] Only for sensors 52 and 82
[14] Only for sensors 59 and 89
[15] max. 60 bar / overpressure 120 bar

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

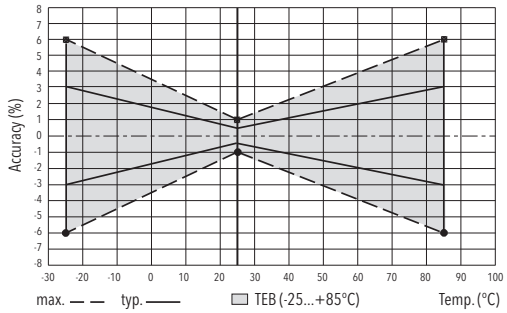
Standard products (extra short lead time)

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

Specifications		
Accuracy	TEB typ. @ -25 ... +85°C	± 3.0 % FS typ.
	Accuracy @ 25°C typ.	± 0.5 % FS typ.
	NLH @ 25°C (BSL) typ.	± 0.2 % FS typ.
	TC zero point and span typ.	± 0.03 % FS/K typ.
	Long term stability 1 year typ.	± 0.3 % FS typ.
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 ratiom.
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Power-on delay time	Max. 1.5 s
	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
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
	Protection [1)]	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_2O_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
	Weight	~ 110 g
	Mounting torque	15 ... 20 Nm

[1)] See electrical connection

Measuring accuracy 0.5 %



Electrical connection

		Protection / electrical connection							
		IP65*)	IP67*)		IP67*)	IP65		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**	**08**
Output signal	P 4-20mA I — Us (pos. Supply), Us (neg. Supply), Earth (housing), Shield***) — **8472**.xx.xxxx.xx.**19**	Standard	**92**	Standard	**94**		**E4**		
		2	1	4	1	1	1	2	white	red
		1	2	1	3	2	3	1	brown	black
		⏚	⏚	5	5			⏚	yellow	green
	P U ± — for DC: Supply ⊕, Output ⊕, Common ⊖, Earth (housing) ⏚, Shield ***) — **8472**.xx.xxxx.xx.**14/16/17/23**	Standard	**98**	**97**			**99**		**E3**	
		2	3	1	2		1	1	3	white	red
		3	1	3	4		3	2	1	green	white
		1	2	2	3		2	3	2	brown	black
		⏚	⏚	⏚	5			⏚	⏚	yellow	green

*) Provided female electrical plug is mounted according to instructions

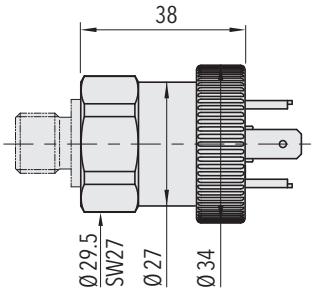
**) Ventilation via male electric plug/cable end

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

Additional information

Documents	Data sheet	www.trafag.com/H72324
	Instructions	www.trafag.com/H73324
	Flyer	www.trafag.com/H70662

Dimensions



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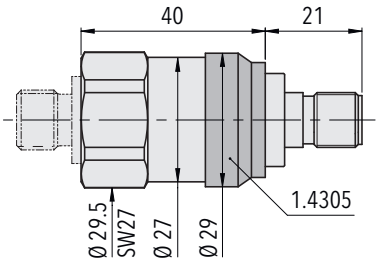

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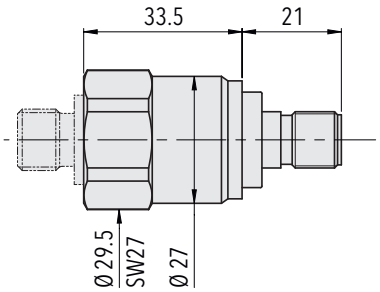

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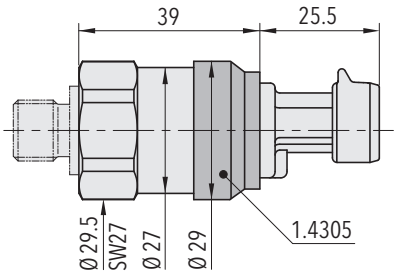
8472.XX.X**942.35**.XX.XX



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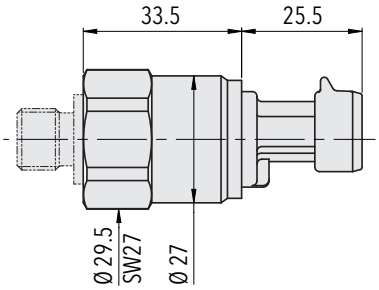

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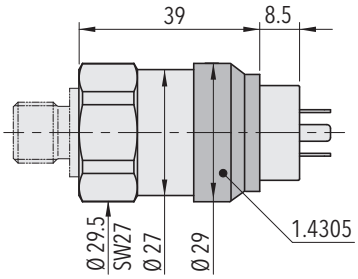

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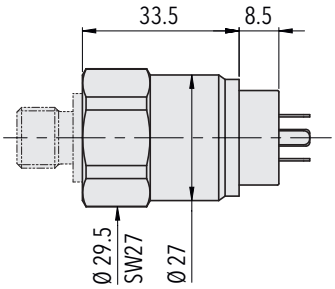

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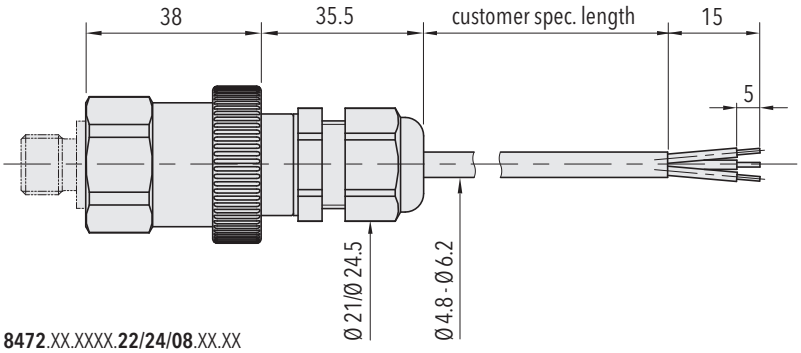
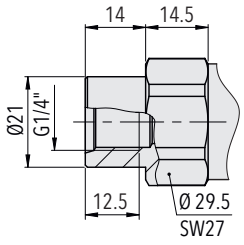


8472.XX.XXXX.**22/24/08**.XX.XX

Dimensions



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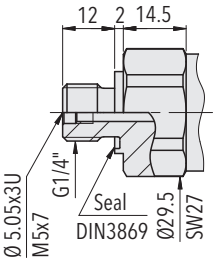

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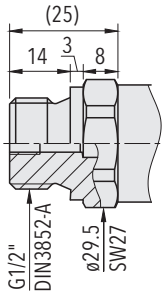

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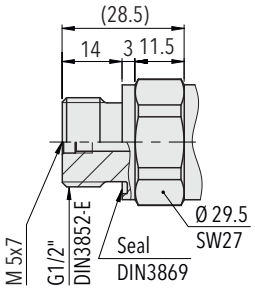
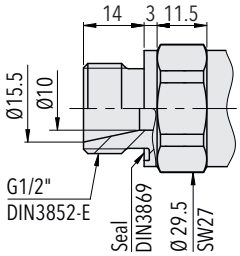
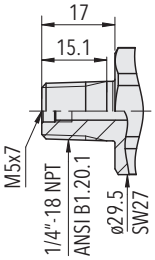


8472.XX.XX**41**.XX.XX.XX



8472.XX.XX**59**.XX.XX.XX



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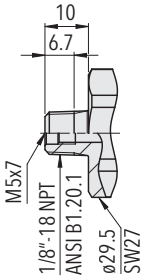

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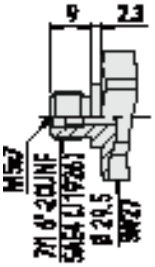

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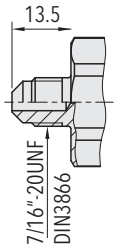

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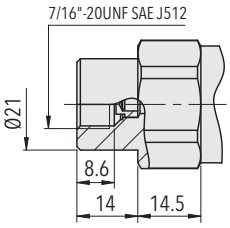
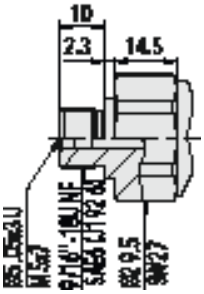
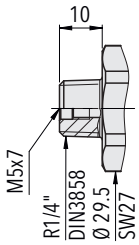


8472.XX.XX**24**.XX.XX.XX



8472.XX.XX**61**.XX.XX.XX



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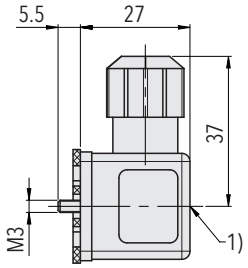
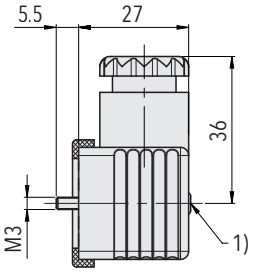


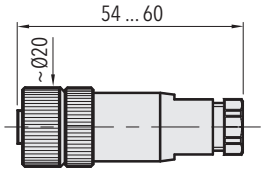
1) Tightening torque 50...60 Ncm

8472.XX.XXXX.XX.XX.**46/56**

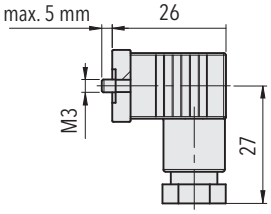


1) Tightening torque 50...60 Ncm

8472.XX.XXXX.XX.XX.**58**



8472.XX.XXXX.XX.XX.**33**



8472.XX.XXXX.XX.XX.**34**