

# 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 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
- Frontal membrane optional

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.		

09/2019

Data sheet H72324ae

Subject to change

## Ordering information/type code

				8472 . XX	XX	XX	XX	XX	XX	
<b>Measuring range <sup>1)</sup></b>	<b>Pressure measurement range [bar]</b>	<b>Over pressure [bar]</b>	<b>Burst pressure [bar]</b>							
	0 ... 1.0	2	3	<b>71</b>	0 ... 15	30	40	<b>G1</b>		
	0 ... 1.6	3.2	4.8	<b>73</b>	0 ... 20	40	60	<b>G3</b>		
	0 ... 2.5	5	7.5	<b>75</b>	0 ... 30	60	90	<b>G5</b>		
	0 ... 4	8	12	<b>76</b>	0 ... 50	100	150	<b>G6</b>		
	0 ... 6	12	15	<b>77</b>	0 ... 100	200	250	<b>G7</b>		
	0 ... 10	20	25	<b>78</b>	0 ... 150	300	375	<b>G8</b>		
	0 ... 16	32	40	<b>79</b>	0 ... 250	500	625	<b>G9</b>		
	0 ... 25	50	75	<b>80</b>	0 ... 400	800	1200	<b>H0</b>		
	0 ... 40	80	100	<b>81</b>	0 ... 500	1000	1250	<b>H1</b>		
	0 ... 60	120	180	<b>82</b>	0 ... 1000	2000	3000	<b>H2</b>		
	0 ... 100 <sup>4)</sup>	200	300	<b>83</b>	0 ... 1500 <sup>4)</sup>	3000	4500	<b>H3</b>		
	0 ... 160 <sup>4)</sup>	320	480	<b>85</b>	0 ... 2000 <sup>4)</sup>	4000	6000	<b>H5</b>		
	0 ... 250 <sup>4)</sup>	500	750	<b>74</b>	0 ... 3000 <sup>4)</sup>	6000	9000	<b>G4</b>		
	0 ... 400 <sup>2) 4)</sup>	800	1000	<b>84</b>	0 ... 5000 <sup>2) 4)</sup>	10000	12500	<b>H4</b>		
	<b>Option 5P: Fivefold overpressure</b>									
	0 ... 2.5	12.5	18	<b>55</b>						
	0 ... 4	20	30	<b>56</b>						
	0 ... 6	30	48	<b>57</b>						
	0 ... 10	50	75	<b>58</b>						
0 ... 16	80	120	<b>59</b>							
0 ... 25	125	180	<b>60</b>							
0 ... 40	200	300	<b>61</b>							
0 ... 60	300	480	<b>62</b>							
<b>Sensor</b>	Relative pressure, Material pressure connection and housing: 1.4305 (AISI303)		<b>57</b>	Absolute pressure, Material pressure connection and housing: 1.4305 (AISI303) <sup>3)</sup>			<b>87</b>			
	Relative pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) <sup>4)</sup>		<b>59</b>	Absolute pressure, Material pressure connection and housing: 1.4404/1.4435 (AISI316L) <sup>3) 4)</sup>			<b>89</b>			
	Relative pressure, Material pressure connection and housing: 1.4462 (AISI318LN) <sup>4)</sup>		<b>52</b>	Absolute pressure, Material pressure connection and housing: 1.4462 (AISI318LN) <sup>3) 4)</sup>			<b>82</b>			
	Relative pressure, titanium grade 5 <sup>4)</sup>		<b>53</b>	Absolute pressure, titanium grade 5 <sup>3) 4)</sup>			<b>83</b>			
<b>Pressure connection</b>	G1/4" female						<b>10</b>			
	G1/4" male						<b>17</b>			
	G1/2" male DIN3852-A <sup>4)</sup>						<b>21</b>			
	G1/2" male DIN3852-E <sup>4)</sup>						<b>41</b>			
	G1/2" male DIN3852-E, with inner cone <sup>4) 13)</sup>						<b>59</b>			
	1/4" NPT male, ANSI B1.20.1 <sup>4)</sup>						<b>30</b>			
	1/8" NPT male, ANSI B1.20.1 <sup>11)</sup>						<b>43</b>			
	7/16"-20UNF male SAE4 (J1926) <sup>4)</sup>						<b>42</b>			
	7/16"-20UNF male, DIN3866 <sup>3)</sup>						<b>18</b>			
	7/16"-20UNF female SAE J512 with valve opener <sup>3)</sup>						<b>24</b>			
	R1/4" male, DIN3858						<b>19</b>			
G3/4" frontal membrane <sup>4) 7)</sup>						<b>52</b>				
<b>Electrical connection</b>	Male electrical connector EN 175301-803-A (DIN43650-A), Mat. PA						<b>05</b>			
	Male electrical connector M12x1, 5-pole, Mat. PA (Old shape), Mat. PBT (New shape)						<b>35</b>			
	Male electrical connector Packard Metri Pack, Mat. PBT						<b>51</b>			
	Male electrical connector, industrial standard (contact distance 9.4 mm), Mat. PBT						<b>01</b>			
	Cable PUR (Screwed cable gland PA 6-3), -20°C ... +70°C <sup>5) 6)</sup>						<b>24</b>			
	Cable PVC (Screwed cable gland PA 6-3), -5°C ... +60°C <sup>5) 6) 9)</sup>						<b>22</b>			
	Cable Raychem (Screwed cable gland PA 6-3), -20°C ... +100°C <sup>3) 6) 9)</sup>						<b>08</b>			

Output signal	Signal output	Load resistance	I (supply)	U (supply)		
	4 ... 20 mA	(U <sub>supply</sub> -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) <sup>8)</sup>				62	
	Seal EPDM (-25°C ... +125°C)				63	
	Pressure peak damping element ø 1.0 mm, material 1.4305 <sup>10)</sup>				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) <sup>10)</sup>				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 connector 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 <sup>12)</sup>					VM	

<sup>1)</sup> Extended overpressure as well as customized pressure ranges upon request

<sup>2)</sup> Media -10°C ... +125°C

<sup>3)</sup> max. 40 bar

<sup>4)</sup> Upon request

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

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

<sup>7)</sup> Not for sensors 57 and 87, only for pressure ranges ≤ 25 bar or 400 psi

<sup>8)</sup> Only for pressure connections 10, 30, 43, 42, 18, 24, 19

<sup>9)</sup> Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)

<sup>10)</sup> Not for pressure connections 10, 18, 24, 52

<sup>11)</sup> Only for sensors 59 and 89 and electrical connections 01, 35, 51 (others on request)

<sup>12)</sup> The order quantity must be a multiple of 50, only for electrical connections 05 and 35

<sup>13)</sup> Only for sensors 52 and 82



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

Reverse Calibration: For measuring ranges below 0 bar with the output signals 4 ... 20 mA (code 19), 1 ... 6 VDC (code 16) and 0 ... 10 VDC (code 17), a reverse calibration is also possible. The signal zero point is at 0 bar, the signal end point at -1 bar.

Further configurations on request.

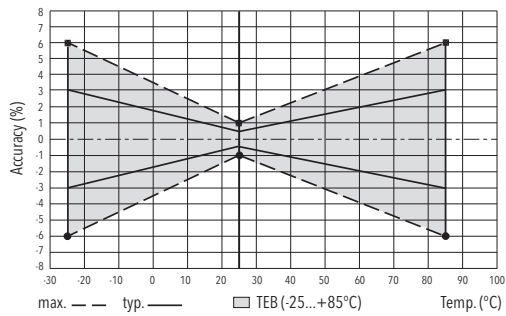
## Standard products (extra short lead time)

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		
<b>Accuracy</b>	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.
<b>Electrical Data</b>	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
	Switch-on-delay	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
<b>Environmental conditions</b>	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 <sup>1)</sup>	IP65, IP67, IP68
	Humidity	Max. 95 % relative
	Vibration	4 g (10...2000 Hz)
	Shock	50 g / 8 ms
<b>EMC Protection</b>	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
<b>Mechanical Data</b>	Sensor (wetted parts)	Ceramic, Al <sub>2</sub> O <sub>3</sub> (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 plug	See ordering information
	Weight	~ 110 g
	Mounting torque	15 ... 20 Nm

<sup>1)</sup> 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 **)						
		<b>05</b>	<b>35</b>	<b>51</b>	<b>01</b>	<b>24/22</b>	<b>08</b>						
Output signal	<p><b>8472.xx.xxxx.xx.19</b></p>	Standard	<b>92</b>	Standard	<b>94</b>		<b>E4</b>						
	<p><b>8472.xx.xxxx.xx.14/16/17/23</b></p>	Standard	<b>98</b>	<b>97</b>			<b>99</b>	<b>E3</b>					

\*) Provided female connector is mounted according to instructions

\*\*) Ventilation via male electric plug/cable end

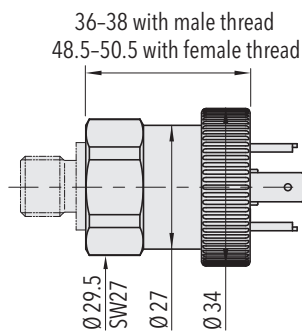
\*\*\*) Only cable versions or female electrical plug with shield connection

### Additional information

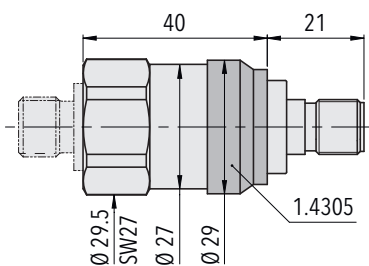
#### Documents

Data sheet	<a href="http://www.trafag.com/H72324">www.trafag.com/H72324</a>
Instructions	<a href="http://www.trafag.com/H73324">www.trafag.com/H73324</a>
Flyer	<a href="http://www.trafag.com/H70662">www.trafag.com/H70662</a>

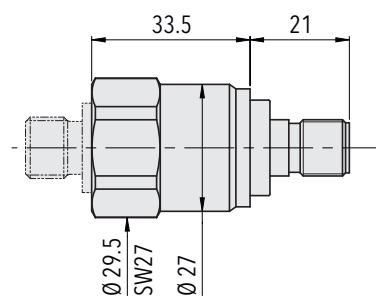
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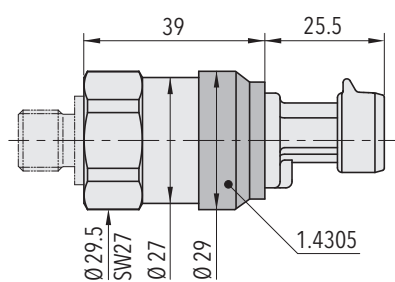
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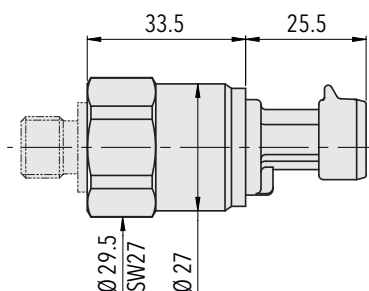
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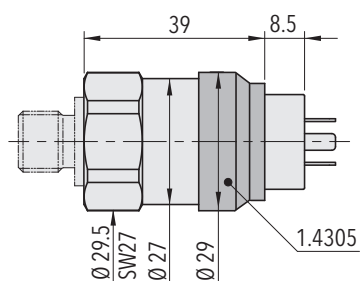
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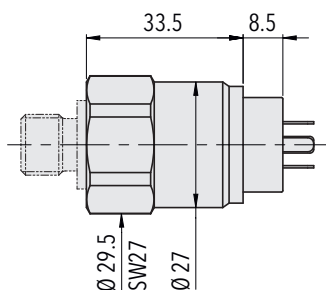
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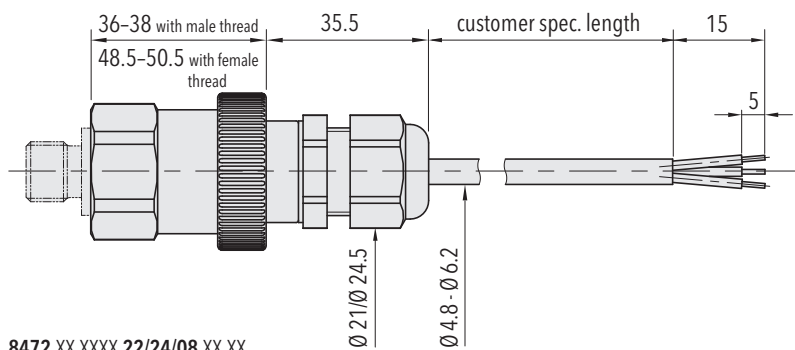
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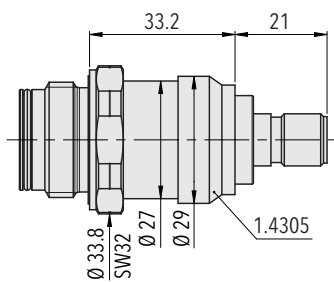


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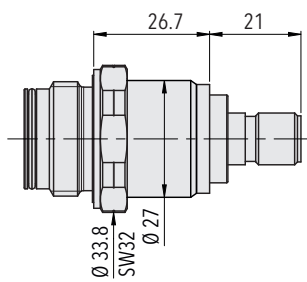


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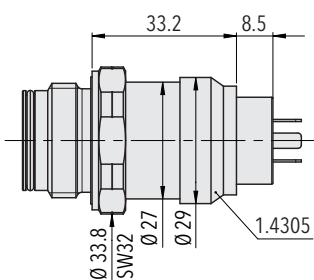
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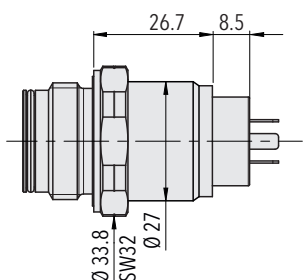
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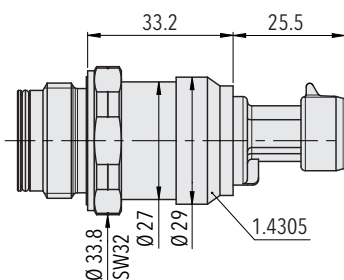
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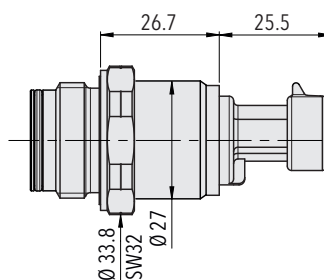
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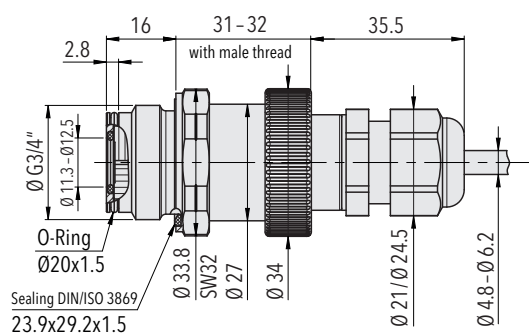
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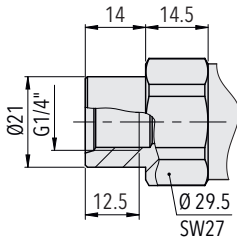
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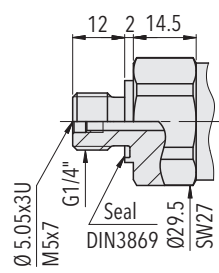
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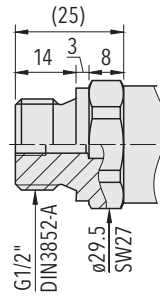
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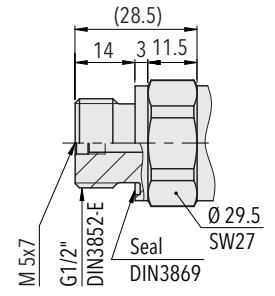
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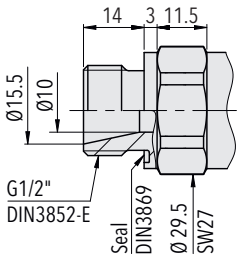
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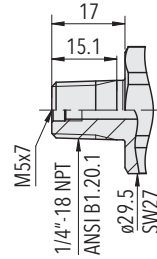
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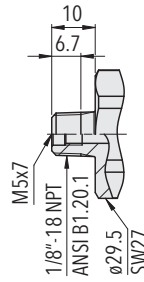
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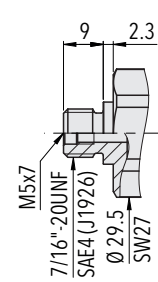
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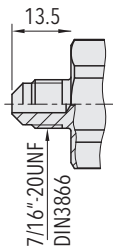
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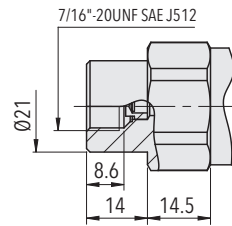
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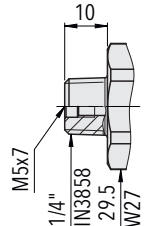
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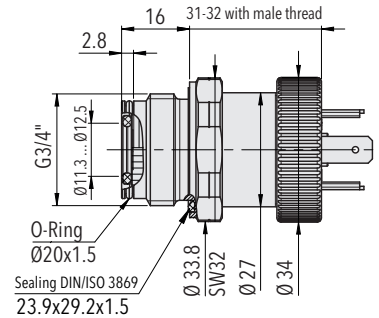
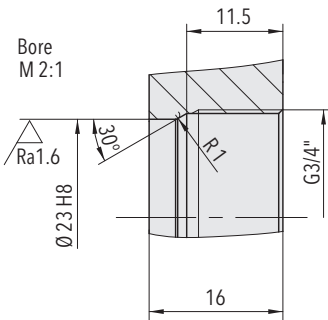
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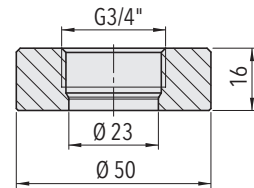
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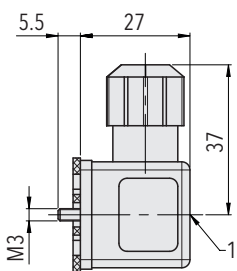
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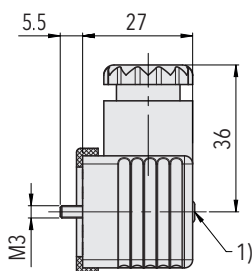
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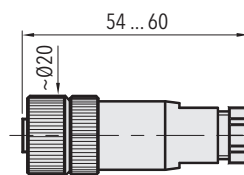
Welding flange for G3/4" frontal membrane (1.4301)  
Ordering No. C27805



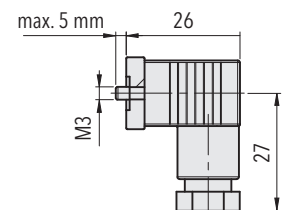
8472.XX.XXXX.XX.XX.46/56



8472.XX.XXXX.XX.XX.58



8472.XX.XXXX.XX.XX.33



8472.XX.XXXX.XX.XX.34