

# 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.		

11/2023

Data sheet H72324aq

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 ... 200	400	600	<b>GA</b>		
	0 ... 25	50	75	<b>80</b>	0 ... 250	500	625	<b>G9</b>		
	0 ... 40	80	100	<b>81</b>	0 ... 400	800	1200	<b>H0</b>		
	0 ... 60	120	180	<b>82</b>	0 ... 500	1000	1250	<b>H1</b>		
	0 ... 100 <sup>4)</sup>	200	300	<b>83</b>	0 ... 1000	2000	3000	<b>H2</b>		
	0 ... 160 <sup>4)</sup>	320	480	<b>85</b>	0 ... 1500 <sup>4)</sup>	3000	4500	<b>H3</b>		
	0 ... 250 <sup>4)</sup>	500	750	<b>74</b>	0 ... 2000 <sup>4)</sup>	4000	6000	<b>H5</b>		
	0 ... 400 <sup>2) 4)</sup>	800	1000	<b>84</b>	0 ... 3000 <sup>4)</sup>	6000	9000	<b>G4</b>		
					0 ... 5000 <sup>2) 4)</sup>	10000	12500	<b>H4</b>		
	<b>Option 5P:</b>	<b>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) 15)</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-2A male, SAE J1926-3 (Light Duty) <sup>4) 7)</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>			
	7/16"-20UNF female, SAE J512 without valve opener <sup>3)</sup>						<b>44</b>			
	9/16"-18UNF-2A male, SAE J1926-3 (Light Duty), seal: accessory 61 <sup>4) 7) 14)</sup>						<b>61</b>			
	R1/4" male, DIN3858						<b>19</b>			
<b>Electrical connection</b>	Male electrical connector EN 175301-803-A (DIN 43650-A), Mat. PA						<b>05</b>			
	Male electrical connector M12x1, 5-pole, Mat. PBT						<b>35</b>			
	Male electrical connector Packard Metri Pack, Mat. PBT <sup>16)</sup>						<b>51</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	(= 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 ratiometric	≥ 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) <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 (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
	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 -, Pin 5 Ground (only for output signal 4 ... 20 mA and male electrical connector 35, M12x1, 5-pole)					94
	Special electrical connection: Pin 1 +, Pin 3 -, Pin 4 Ground (only for output signals 19 and male electrical connector 35, M12x1, 5-pole)					G9
	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
	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, see table "Customised measuring ranges"

<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> IP68-rated protection: Immersion depth max. 3 m, Media +10°C ... +35°C

<sup>7)</sup> Measuring range max. 350 bar according to SAE J1926-3 (Light Duty)

<sup>8)</sup> Only for pressure connections 10, 30, 43, 18, 24, 44, 19

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

<sup>10)</sup> Not for pressure connections 10, 18, 24, 44

<sup>11)</sup> Only for sensors 59 and 89 and electrical connections 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

<sup>14)</sup> Only for sensors 59 and 89

<sup>15)</sup> max. 60 bar / overpressure 120 bar

<sup>16)</sup> Do not use for new designs as this option will be phased out soon. Only limited quantities available.



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



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



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.

Customised measuring ranges					
Min. pressure <sup>1)</sup>	Max. pressure <sup>2)</sup>	Min. span	Max. span	Overpressure	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

All pressures in bar

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

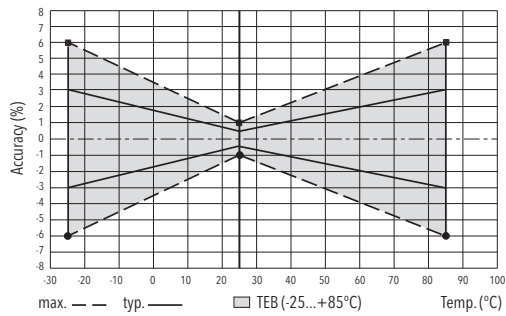
2) Maximum pressure= highest pressure, end of measuring range (relative)

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
	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
<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	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)
<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 connector	See ordering information
	Weight	~ 110 g
	Mounting torque	15 ... 20 Nm

<sup>1)</sup> See electrical connection

## Measuring accuracy 0.5 %



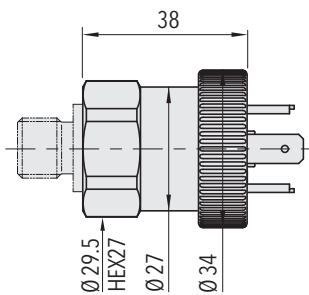
## Electrical connection

		Protection / electrical connection							
		IP65*)	IP67*)		IP67*)	IP68 max. 3m	IP68 max. 3 m		
		Industrial standard EN175301-803A **)	M12x1 **) 5-pole		Packard Metri Pack **) 3-pole	Cable**) <b>24/22</b>	Cable **) <b>08</b>		
		<b>05</b>	<b>35</b>		<b>51</b>				
Output signal		Standard	<b>92</b>	Standard	<b>94</b>	<b>G9</b>	<b>E4</b>		
		<ul style="list-style-type: none"> <li>U<sub>S</sub> (pos. Supply)</li> <li>U<sub>S</sub> (neg. Supply)</li> <li>Earth (housing)</li> <li>Shield***)</li> </ul>	2 1 ⊕	1 2 ⊕	4 1 5	1 3 5	1 3 4	1 2 3	white brown yellow
	<b>8472.xx.xxxx.xx.19</b>								
Output signal		Standard	<b>98</b>	<b>97</b>			<b>99</b>		
	<ul style="list-style-type: none"> <li>for DC</li> <li>Supply</li> <li>Output</li> <li>Common</li> <li>Earth (housing)</li> <li>Shield ***)</li> </ul>	2 3 1 ⊕	3 1 2 ⊕	1 3 2 ⊕	2 4 3 5	1 3 2	1 2 3	white green brown yellow	red white black green
	<b>8472.xx.xxxx.xx.14/16/17/23</b>								

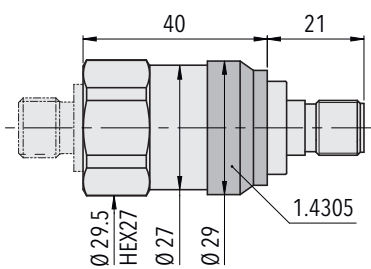
- \*1) Provided female electrical plug is mounted according to instructions
- \*\*1) Ventilation via male electric plug/cable end
- \*\*\*1) Only cable versions or female electrical plug with shield connection

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>

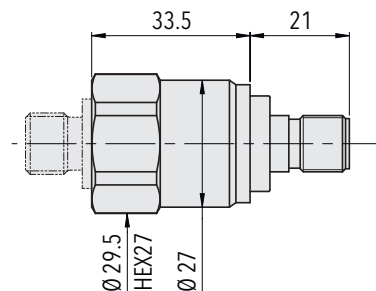
## Dimensions



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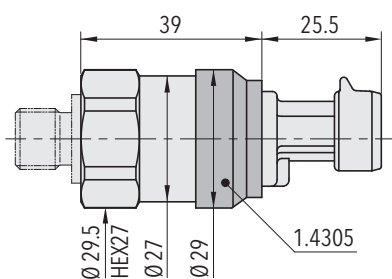
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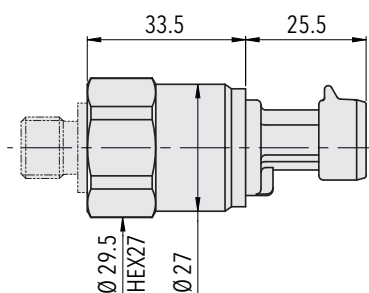
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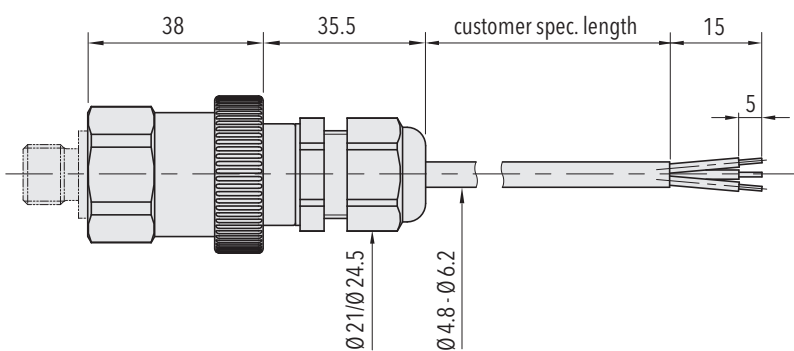
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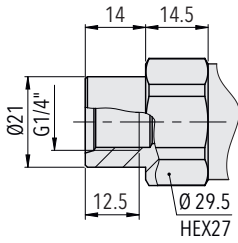
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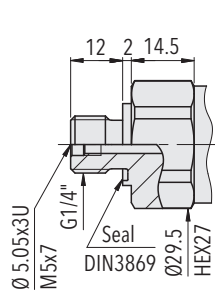


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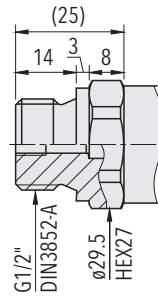
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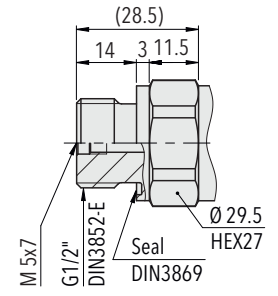
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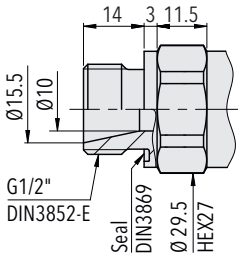
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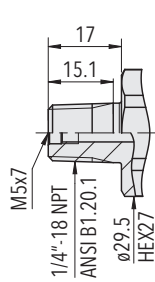
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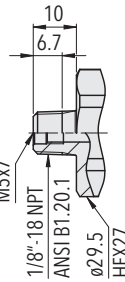
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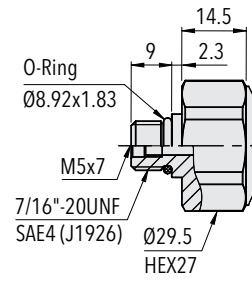
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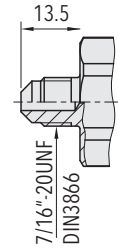
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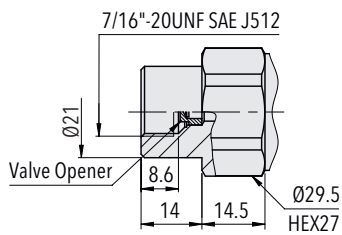
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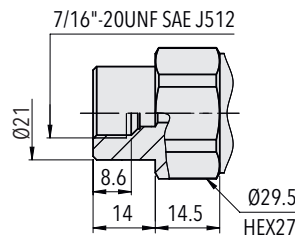
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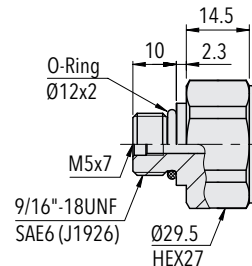
8472.XX.XX18.XX.XX.XX



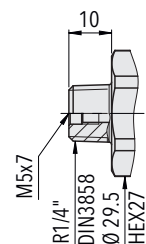
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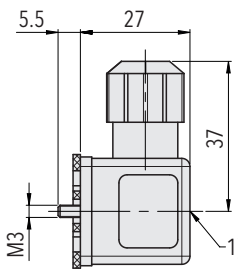
8472.XX.XX44.XX.XX.XX



8472.XX.XX61.XX.XX.XX

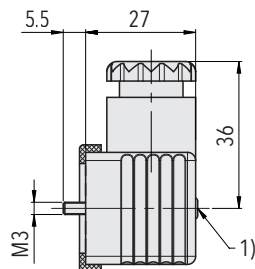


8472.XX.XX19.XX.XX.XX



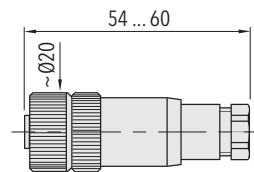
1) Tightening torque 50...60 Ncm

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