

# ECONOMIC REFRIGERATION PRESSURE TRANSMITTER

This product will be replaced by: ECT 8472 - see [www.trafag.com/H72324](http://www.trafag.com/H72324)  
EPI 8287 - see [www.trafag.com/H72317](http://www.trafag.com/H72317)

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



## Applications

- HVAC
- Refrigeration

## Features

- Economical
- Good media compatibility
- Relative or absolute pressure measurement

## Technical Data

Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	-1 ... 9 to 0 ... 40 bar 0 ... 15 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

10/2017

Data sheet H72323aa

Subject to change

## Ordering information/type code

							8471 . 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>		<b>Pressure measurement range [psi]</b>	<b>Over pressure [psi]</b>	<b>Burst pressure [psi]</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	45	70	<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>				
	-1 ... 9	20	25	<b>26</b>								
	-1 ... 16	32	40	<b>27</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>2)</sup>							<b>87</b>				
<b>Pressure connection</b>	7/16"-20UNF male, DIN3866							<b>18</b>				
	7/16"-20UNF female SAE J512 with valve opener							<b>24</b>				
	1/4" NPT male, ANSI B1.20.1 <sup>3)</sup>							<b>30</b>				
<b>Electrical connection</b>	Male electrical plug EN 175301-803-A, Mat. PA							<b>05</b>				
	Male electrical plug M12x1, 5-pole, Mat. PA							<b>35</b>				
	Male electrical plug Packard Metri Pack, Mat. PBT <sup>6)</sup>							<b>51</b>				
	Male electrical plug, industrial standard (contact distance 9.4 mm) Mat. PBT							<b>01</b>				
	Cable IP67, Mat. PVC (cable gland PA6-3), -5°C ... +60°C <sup>4) 5)</sup>							<b>22</b>				
Cable IP68, Mat. PVC, max. 3m, Medium +10°C ... +35°C, Pmax. 1 bar rel./abs. (old version)							<b>68</b>					
<b>Output signal</b>	<b>Signal output</b>	<b>Load resistance</b>		<b>I (supply)</b>	<b>U (supply)</b>							
	4 ... 20 mA	(U <sub>supply</sub> -9 V) / 20 mA			9 ... 30 VDC						<b>19</b>	
	0 ... 5 VDC	≥ 2.5 kΩ		≤ 10 mA	10 ... 30 VDC						<b>14</b>	
	1 ... 6 VDC	≥ 5.0 kΩ		≤ 10 mA	10 ... 30 VDC						<b>16</b>	
	0 ... 10 VDC	≥ 5.0 kΩ		≤ 10 mA	15 ... 30 VDC						<b>17</b>	
	0.5 ... 4.5 VDC ratiometric	≥ 5.0 kΩ		≤ 10 mA	5 VDC ± 0.25 VDC ratiom.						<b>23</b>	

Accessories		
Seal FKM (-20°C ... +125°C)		61
Seal CR ≤ 100 bar (-25°C ... +100°C)		62
Seal EPDM (-25°C ... +125°C)		63
Pressure peak damping element ø 1.0 mm <sup>7)</sup>		40
Pressure peak damping element ø 0.3 mm <sup>7)</sup>		43
Pressure peak damping element ø 0.4 mm <sup>7)</sup>		44
Pressure peak damping element ø 0.5 mm <sup>7)</sup>		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 + , Pin 2 - , Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)		97
Special electrical connection: Pin 1 + , Pin 2 - , Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)		98
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

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

<sup>2)</sup> Absolute ranges max. 40 bar


<sup>3)</sup> Please ask us

<sup>4)</sup> Cable length see accessories

<sup>5)</sup> More materials and cables with venting tubes for low pressure ranges upon request

<sup>6)</sup> Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)

<sup>7)</sup> Only for pressure connection 30

 Identical construction for industries and optional with higher accuracy:  
Data sheets No. H72324 and H72326

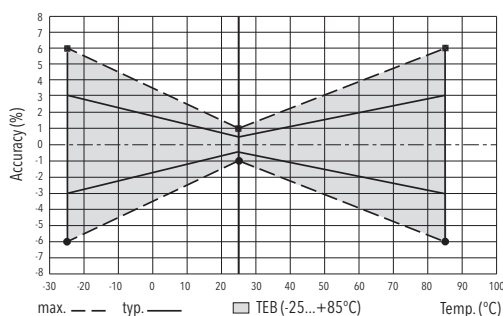
## Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
ECTR9.0A	8471 26 5718 05 0000 0000 19 58 62 01	-1 ... 9	20	4 ... 20 mA	9 ... 30
ECTR16.0A	8471 27 5718 05 0000 0000 19 58 62 01	-1 ... 16	32	4 ... 20 mA	9 ... 30
ECTR25.0A	8471 80 5718 05 0000 0000 19 58 62	0 ... 25	50	4 ... 20 mA	9 ... 30
ECTR30.0A	8471 29 5718 05 0000 0000 19 58 62 01	0 ... 30	50	4 ... 20 mA	9 ... 30
ECTR9.0A	8471 26 5724 05 0000 0000 19 58 62 01	-1 ... 9	20	4 ... 20 mA	9 ... 30
ECTR16.0A	8471 27 5724 05 0000 0000 19 58 62 01	-1 ... 16	32	4 ... 20 mA	9 ... 30
ECTR25.0A	8471 80 5724 05 0000 0000 19 58 62	0 ... 25	50	4 ... 20 mA	9 ... 30

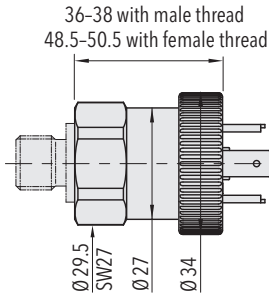
Specifications		
<b>Accuracy</b>	TEB typ. @ -25 ... +85°C	± 3.0 % FS typ.
	Accuracy @ 25°C typ.	± 0.5 % FS typ.
	NLH @ 25°C (BSL) typ.	± 0.2 % FS typ.
	TC zero point and span typ.	± 0.03 % FS/K typ.
	Long term stability 1 year typ.	± 0.3 % FS typ.
<b>Electrical Data</b>	Output / supply voltage	4...20 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 ratiometric: 5 VDC
	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
	Ambient temperature	-25°C ... +85°C (Cable PVC 22: -5°C ... +60°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)	1.4305 (AISI303)
	Housing	1.4305 (AISI303)
	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

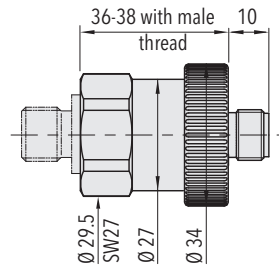
## Measuring accuracy 0.5%



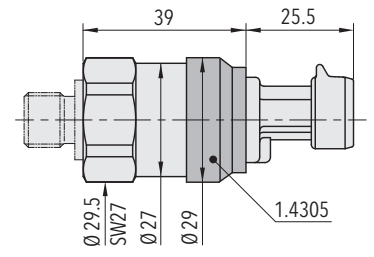
## Dimensions



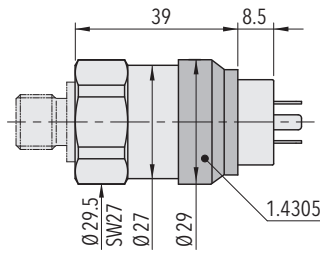
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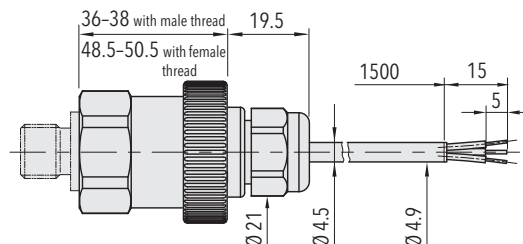
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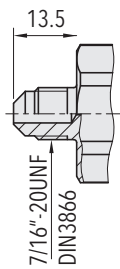
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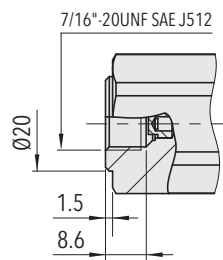
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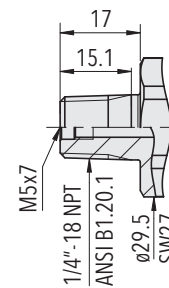
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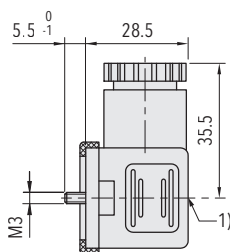
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8471.XX.XX24.XX.XX.XX

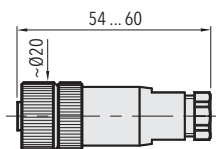


8471.XX.XX30.XX.XX.XX

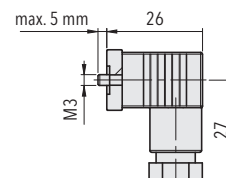


1) Tightening torque 50...60Ncm

8471.XX.XXXX.XX.XX.58

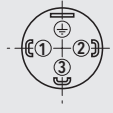
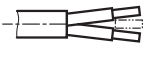
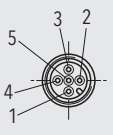
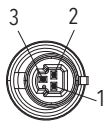
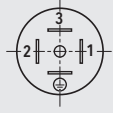


8471.XX.XXXX.XX.XX.33



8471.XX.XXXX.XX.XX.34

## Electrical connection

		Protection / electrical connection					
		IP65*)	IP67/IP68 max. 3m	IP67*)	IP67*)	IP65	
		Industrial standard EN175301-803A **)	Cable**)	M12x1 **) 5-pole	Packard Metri Pack **) 3-pole	Industrial standard Contact distance 9.4 mm **)	
		<b>05</b> 	<b>22/68</b> 	<b>35</b> 	<b>51</b> 	<b>01</b> 	
Output signal	 <b>8471.xx.xxxx.xx.19</b>	Standard	<b>92</b>			<b>E4</b>	
		2 1 ⊕ ⊖	1 2 ⊕ ⊖	white brown ⊕ ⊖	4 1 5	1 2	1 3
	 <b>8471.xx.xxxx.xx.14/16/17/23</b>	Standard	<b>98</b>	<b>97</b>		<b>99</b>	
		2 3 1 ⊕ ⊖	3 1 2 ⊕ ⊖	1 3 2 ⊕ ⊖	white green brown ⊕ ⊖	2 4 3 5	1 3 2 3

\*) Provided female connector is mounted according to instructions

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

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

### Additional information

#### Documents

Data sheet	<a href="http://www.trafag.com/H72323">www.trafag.com/H72323</a>
Instructions	<a href="http://www.trafag.com/H73324">www.trafag.com/H73324</a>
Flyer	<a href="http://www.trafag.com/H70689">www.trafag.com/H70689</a>