



Pressure transmitter

## OEM relative pressure transmitter

### Type 506

Type 506 pressure transmitters are suitable for different applications in the field of industrial refrigeration due to its application specific pressure connections. Partially automated manufacturing allows the efficient production of large quantities, resulting in an excellent price / performance ratio.



**Pressure range**  
**-0.5 ... 7 bar /**  
**0 ... 10 – 60 bar**

- + Compact construction
- + Automated manufacture in large quantities for ideal price / performance ratio
- + Robust ceramic sensor technology
- + High resistance to extreme temperatures
- + No mechanical creepage

## Technical overview

### Pressure range

Relative	-0.5 ... 7 bar / 0 ... 10 – 60 bar
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### Operating conditions

Medium		Refrigerants
Temperature	Medium / ambient	-40 ... +80 °C
	Storage	-40 ... +80 °C
Tolerable overload		2 x fs (max. 80 bar)
Rupture pressure		3 x fs (max. 90 bar)

### Materials

Case		PA6, red
	Sensor	Ceramic Al <sub>2</sub> O <sub>3</sub> (96%)
Materials in contact with the medium	Pressure connection	Stainless steel 1.4305 / AISI 303
	Sealing material	CR (chlorine caoutchouc)

### Electrical overview

	Output	Power supply	Load	Current consumption <sup>1)</sup>
2 wire	4 ... 20 mA	8.0 ... 33 VDC	< $\frac{\text{supply voltage} - 5V}{0.02 A}$ [Ohm]	< 20 mA
	4 ... 20 mA	10.0 ... 33 VDC	< $\frac{\text{supply voltage} - 10V}{0.02 A}$ [Ohm]	< 20 mA
3 wire	0 ... 5 V	9.0 ... 33 VDC	> 10 kOhm / < 100 nF	< 5 mA
	1 ... 6 V	10.4 ... 33 VDC	> 10 kOhm / < 100 nF	< 5 mA
	0 ... 10 V	16.2 ... 33 VDC	> 10 kOhm / < 100 nF	< 6 mA
	ration. 10 ... 90%	5 VDC ±5%	> 10 kOhm / < 100 nF	< 3 mA

Polarity reversal protection Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.

### Dynamic response

Response time	< 5 ms
Load cycle	< 50 Hz

### Protection standard

IP 65	
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### Electrical connection

Cable 1.5 m
Connector DIN EN 175301-803-A
Connector DIN EN 175301-803-C (industrial standard 9.4 mm)
Connector M12x1 (pastic)

### Pressure connection

Inside thread	$\frac{7}{16}$ - 20 UNF Schrader
Outside thread	$\frac{7}{16}$ - 20 UNF $\frac{3}{4}$ - 18 NPT

### Installation arrangement

Recommended: Pressure connection downwards
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### Tests / Admissions

Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
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### Weight

With inside thread	~ 95 g
With outside thread	~ 110 g
With cable 1.5 m additional	~ 40 g

### Packaging (Please state on order)

Single packaging in cardboard
Multiple packaging in cardboard per 25 pcs.

## Accuracy

Parameter	Unit	0 ... 10 bar	> 10 ... 60bar
Tolerance zero point	max. % fs	± 1.0	± 1.0
Tolerance full scale	max. % fs	± 1.0	± 1.0
Resolution	% fs	0.1	0.1
Total of linearity, hysteresis and repeatability	max. % fs	± 1.0	± 0.5
Long term stability acc. to DIN EN 60770	% fs	± 1.0	± 1.0
TC zero point <sup>2)</sup>	max. % fs/10K	± 0.4	± 0.4
TC sensitivity <sup>2)</sup>	typ. % fs/10K	- 0.15	- 0.15
TC sensitivity <sup>2)</sup>	max. % fs/10K	- 0.3	- 0.3

Test conditions: 25 °C, 45% RH, power supply 24 VDC  
TC z.p. / TC s. -40 ... +80 °C

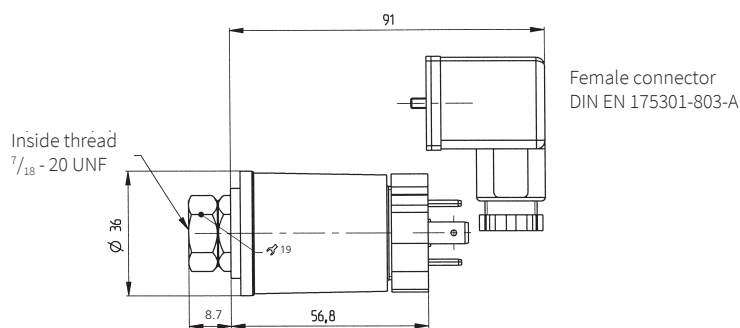
<sup>1)</sup> At nominal pressure

<sup>2)</sup> TC = Temperature coefficient

			1	2	3	4	5	6	7	8	9	10		
<b>Order code selection table</b>			506.	X	X	X	X	X	X	X	X	X	X	
<b>Pressure range</b>	0 ... 10 bar		9	3	0									
	0 ... 16 bar		9	3	1									
	0 ... 25 bar		9	3	2									
	0 ... 40 bar		9	3	3									
	0 ... 60 bar		9	4	0									
▲ Full scale signal at these pressures														
<b>Sealing material</b> <sup>1)</sup>	CR						A							
<b>Adjustment</b>	Factory						0							
<b>Output / power supply</b>	0 ... 5 V	9.0 ... 33 VDC						1						
	1 ... 6 V	10.4 ... 33 VDC						6						
	0 ... 10 V	16.2 ... 33 VDC						2						
	4 ... 20 mA	10.0 ... 33 VDC						3						
		8.0 ... 33 VDC						8						
	ratiom. 10 ... 90%	5 VDC ±5%						4						
	Cable 1.5 m									0				
<b>Electrical connection</b>		DIN EN 175301-803-A								1				
	Connector <sup>2)</sup>	DIN EN 175301-803-C (industrial standard 9.4 mm)								2				
		M12x1 (plastic)									3			
<b>Pressure connection</b>	Inside thread	7/16 - 20 UNF Schrader									0	1		
	Outside thread	7/16 - 20 1/4 - 18 NPT									2			
<b>Pressure tip orifice</b>	without											1		
	with											2		
<b>Pressure range variation (optional)</b>	Indicate W and state range on order (e.g.: W0...8bar/Out1...8V)												W	

Storage versions	Order number
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Output	4 ... 20 mA	Pressure range	
Power supply	10 ... 33 VDC	-0.5 ... 7 bar	506.930A23101W-0.5...7bar
Electrical connection <sup>2)</sup>	Connector DIN EN 175301-803-A, IP 65	0 ... 25 bar	506.932A23101W0...25bar
Pressure connection	Inside thread 7/16-20 UNF		
Sealing material	CR (chlorine caoutchouc)		
Colour of cover	black		



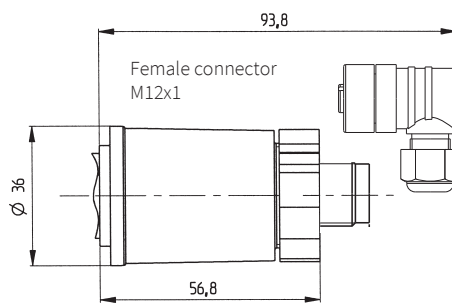
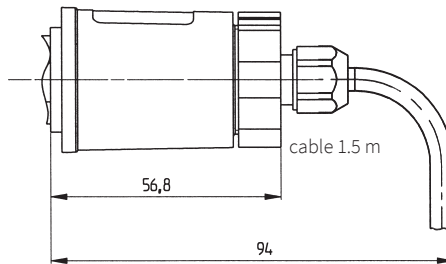
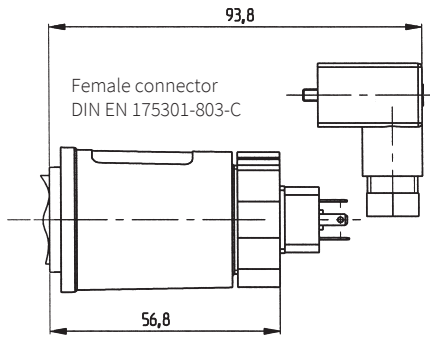
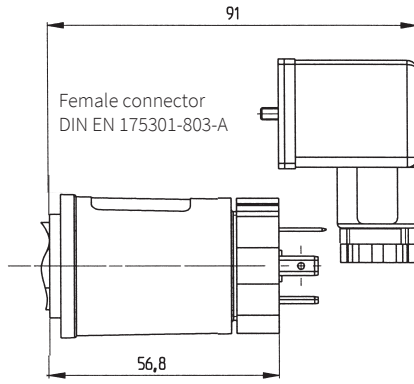
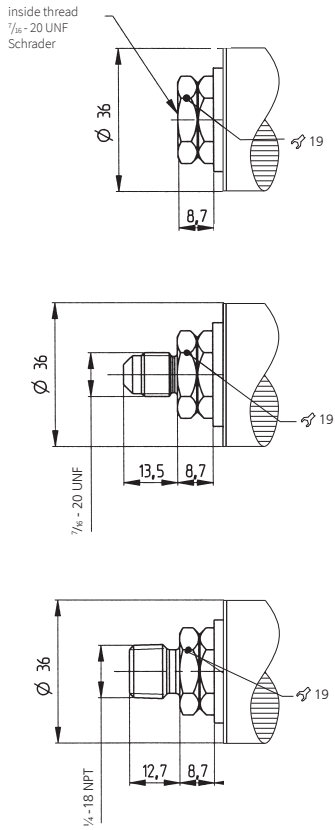
Accessories <sup>3)</sup>	Order number
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Female connector DIN EN 175301-803-A with seal (IP 65, when installed and latched)	103510
Female connector DIN EN 175301-803-C with seal (IP 65, when installed and latched)	104244
Female connector M12x1	103524
Calibration certificate	104551

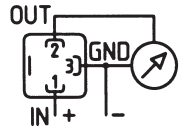
<sup>1)</sup> According to ISO standard R 1629, other sealing materials on request

<sup>2)</sup> Without female connector

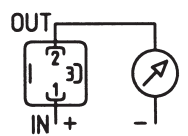
<sup>3)</sup> Accessories supplied loose



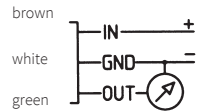
3 wire



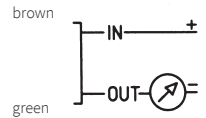
2 wire



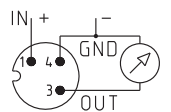
3 wire



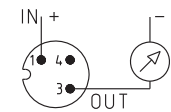
2 wire



3 wire



2 wire



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