



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		
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		
Materials in contact with the medium		Sensor	Ceramic Al ₂ O ₃ (96%)	
		Pressure connection	Stainless steel 1.4305 / AISI 303	
		Sealing material	CR (chlorine caoutchouc)	
Electrical overview				
2 wire	Output	Power supply	Load	Current consumption ¹⁾
	4 ... 20 mA	8.0 ... 33 VDC	< $\frac{\text{supply voltage} - 8V}{0.02 A}$ [Ohm]	< 20 mA
3 wire	4 ... 20 mA	10.0 ... 33 VDC	< $\frac{\text{supply voltage} - 10V}{0.02 A}$ [Ohm]	< 20 mA
	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
	ratiom. 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				
Electrical connection				
Cable 1.5 m		IP 65		
Connector DIN EN 175301-803-A		IP 65		
Connector DIN EN 175301-803-C (industrial standard 9.4 mm)		IP 65		
Connector M12x1 (pastic)		IP 65		
Pressure connection				
Inside thread		$\frac{7}{16}$ - 20 UNF Schrader		
Outside thread		$\frac{7}{16}$ - 20 UNF $\frac{1}{4}$ -18 NPT		
Installation arrangement				
Recommended: Pressure connection downwards				
Tests / Admissions				
Electromagnetic compatibility		CE conformity acc. EN 61326-2-3		
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		Einheit	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 ²⁾	max.	% fs/10K	± 0.4	± 0.4
TC sensitivity ²⁾	typ.	% fs/10K	- 0.15	- 0.15
TC sensitivity ²⁾	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

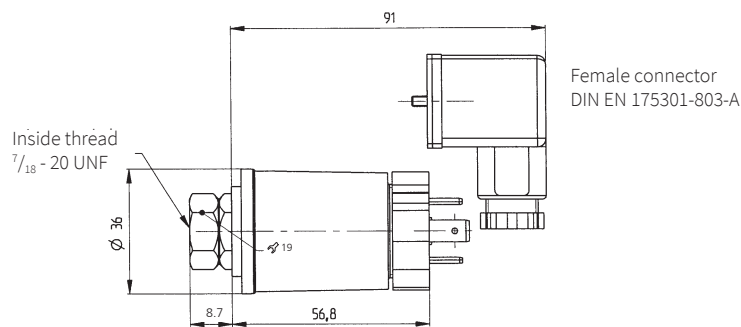
¹⁾ At nominal pressure

²⁾ TC = Temperature coefficient

		1	2	3	4	5	6	7	8	9	10
Order code selection table		506. X X X X X X X X X X X									
Pressure range	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										
Sealing material ¹⁾	CR						A				
Adjustment	Factory					0					
Output / power supply	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			
	ration. 10 ... 90%	5 VDC ±5%						4			
Electrical connection	Cable	1.5 m							0		
	Connector ²⁾	DIN EN 175301-803-A							1		
		DIN EN 175301-803-C (industrial standard 9.4 mm)								2	
	M12x1 (plastic)								3		
Pressure connection	Inside thread	7/16 - 20 UNF Schrader								0	1
	Outside thread	7/16 - 20								2	
		1/4 - 18 NPT									3
Pressure tip orifice	without										1
	with										2
Pressure range variation (optional)	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 ²⁾	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		

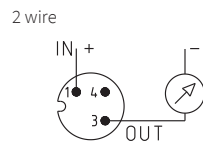
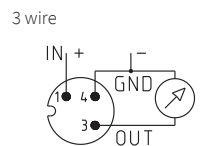
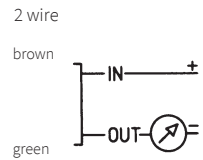
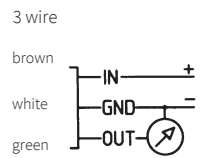
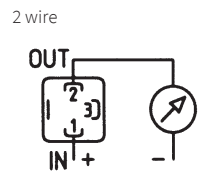
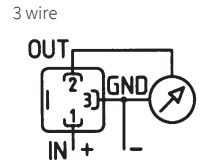
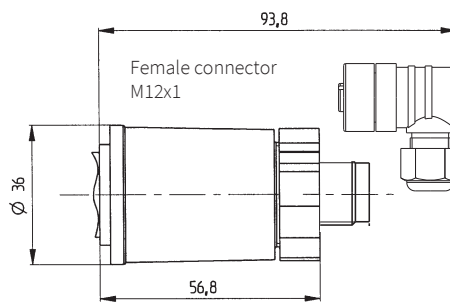
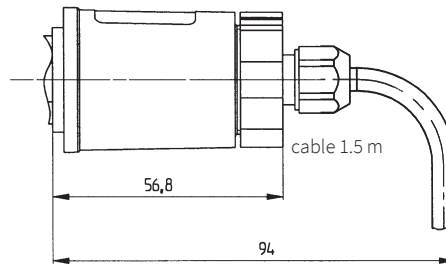
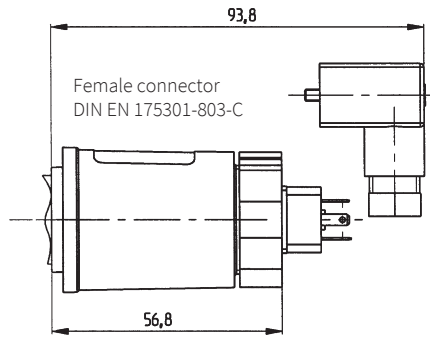
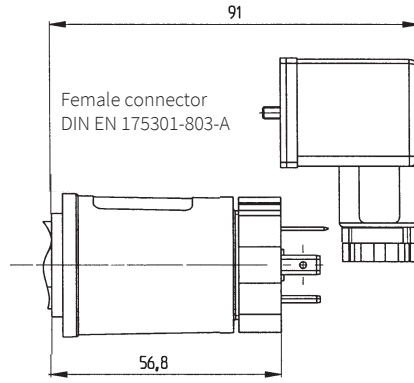
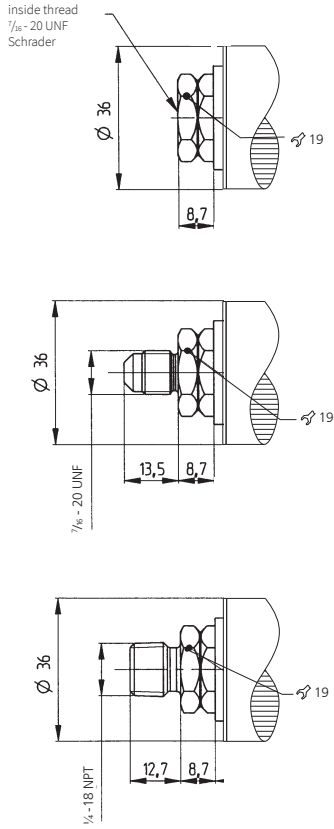


Accessories (supplied loose)	Order number
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Female connector DIN EN 175301-803-A with seal (IP 65, when installed and latched)	103510
Female connector DIN EN 175301-803-C with seal (IP 65, when installed and latched)	104244
Female connector M12x1	103524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

¹⁾ According to ISO standard R 1629, other sealing materials on request

²⁾ Without female connector



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