

OEM relative pressure transmitter type 506

Pressure range

-0.5 ... 7 bar / 0 ... 10 – 60 bar



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.

- 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)
Repture 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

	Output	Power supply	Load	Current consumption ¹⁾
2 wire	4 ... 20 mA	8.0 ... 33 VDC	< $\frac{\text{supply voltage} - 8\text{V}}{0.02\text{A}}$ [Ohm]	< 20 mA
	4 ... 20 mA	10.0 ... 33 VDC	< $\frac{\text{supply voltage} - 10\text{V}}{0.02\text{A}}$ [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

Electrical connection

Cable 1.5 m
 Connector DIN EN 175301-803-A
 Connector DIN EN 175301-803-C (Mini DIN)
 Connector M12x1 (pastic)

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		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 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

Order code selection table

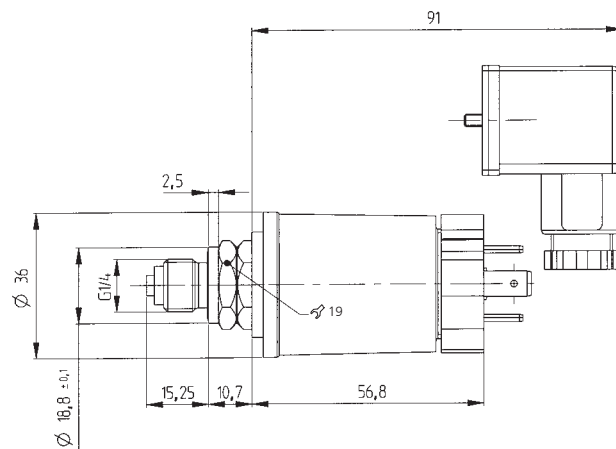
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Pressure range	0 ... 10 bar		3	0																		
	0 ... 16 bar		3	1																		
	0 ... 25 bar		3	2																		
	0 ... 40 bar		3	3																		
	0 ... 60 bar		4	0																		
▲ Full scale signale at these pressures																						
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		
	4 ... 20 mA	8.0 ... 33 VDC																		8		
	ratiom. 10 ... 90%	5 VDC ±5%																			4	
																					0	
Electrical connection	Cable 1.5 m																					
	Connector ²⁾ DIN EN 175301-803-A																				1	
	Connector ²⁾ DIN EN 175301-803-C (mini DIN)																					2
	Connector ²⁾ M12x1 (plastic)																					3
Pressure connection	Inside thread	7/16 - 20 UNF Schrader																			0 1	
	Outside thread	7/16 - 20																			2	
	Outside thread	1/4 - 18 NPT																			3	
Pressure tip orifice	without																				1	
	with																				2	
Pressure range variation	Indicate W and state range on order (e.g.: W0...8bar/Out1...8V)																			W		

Storage versions

Output	4 ... 20 mA
Power supply	10 ... 33 VDC
Electrical connection ²⁾	Connector DIN EN 175301-803-A, IP 65
Pressure connection	Inside thread 7/16-20 UNF
Sealing material	CR (chlorine caoutchouc)
Colour of cover	black

Pressure range	Order number
-0.5 ... 7 bar	506.930A23101W-0.5...7 bar
0 ... 25 bar	506.932A23101W0 ... 25 bar



Female connector
DIN EN 175301-803-A

Accessories ³⁾

Female connector DIN EN 175301-803-A with seal (IP 65, when installed and latched)	Order number 103510
Female connector DIN EN 175301-803-C (mini DIN) 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

³⁾ Accessories supplied loose

