



Pressure transmitter

Huba Control

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
	Sensor	Ceramic Al ₂ O ₃ (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 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	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

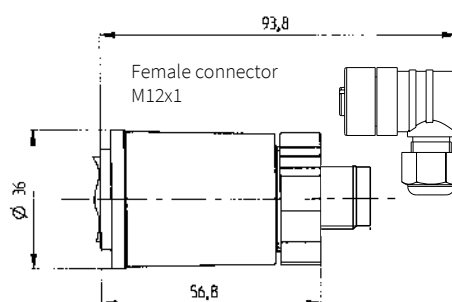
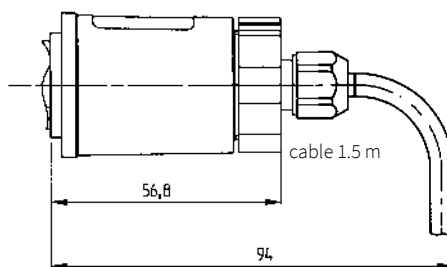
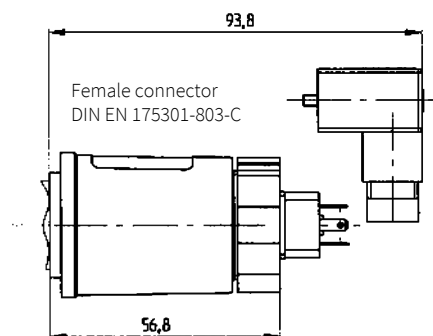
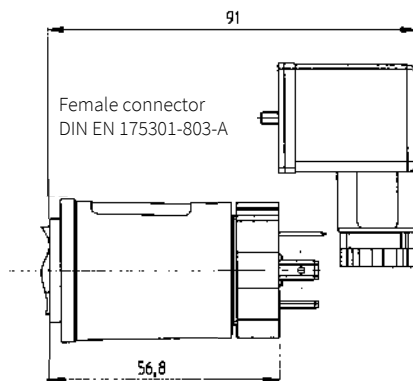
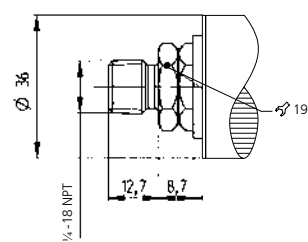
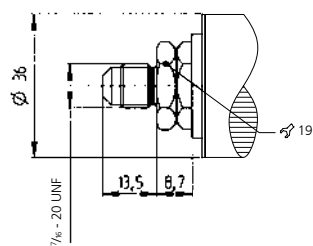
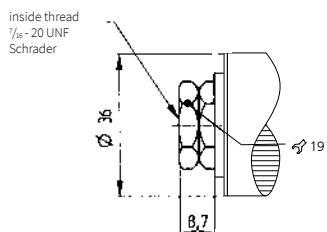
²⁾ TC = Temperature coefficient

		1	2	3	4	5	6	7	8	9	10
Order code selection table		506.	X	X	X	X	X	X	X	X	X
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						1				
	1 ... 6 V						6				
	0 ... 10 V						2				
	4 ... 20 mA						3				
	10.0 ... 33 VDC						8				
Electrical connection	8.0 ... 33 VDC						4				
	ratiom. 10 ... 90%										
	Cable							0			
	1.5 m							1			
	DIN EN 175301-803-A							2			
Pressure connection	Connector ²⁾							3			
	DIN EN 175301-803-C (industrial standard 9.4 mm)										
	M12x1 (plastic)										
Pressure tip orifice	Inside thread								0	1	
	Outside thread								2		
Pressure range variation (optional)	without									1	
	with									2	
Indicate W and state range on order (e.g.: W0...8bar/Out1...8V)											W

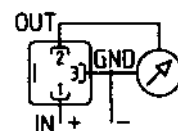
Accessories <i>(supplied loose)</i>	Order number
Female connector DIN EN 175301-803-A with seal (IP 65, when installed and latched)	103510
Female connector DIN EN 175301-803-C with seal (IP 65, when installed and latched)	104244
Female connector M12x1	103524
Calibration certificate	104551

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

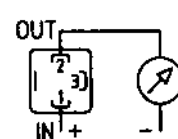
²⁾ Without female connector



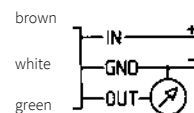
3 wire



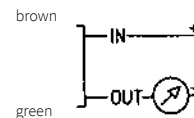
2 wire



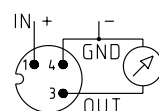
3 wire



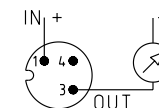
2 wire



3 wire



2 wire



Huba Control AG

Industriestrasse 17
5436 Würenlos, Switzerland
Tel. +41 56 436 82 00
info.ch@hubacontrol.com



Consultancy in your area
hubacontrol.com/hqr6/210

