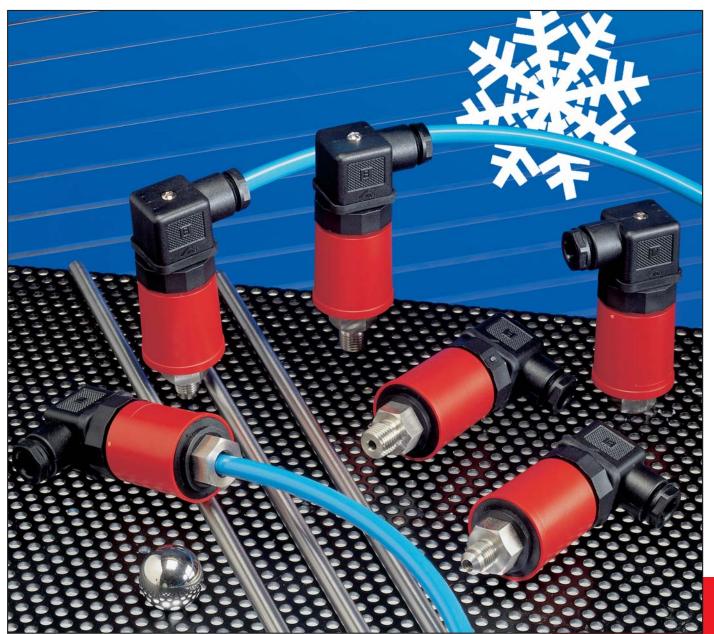
506

Pressure transmitter for refrigeration technology

Relative Pressure up to 60 bar



EDITION 02/2006



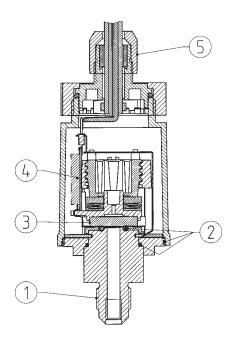




Technical overview

The pressure transmitter type 506 with proven ceramic technology, features calibrated and amplified sensor signals which are available as standardised current outputs.

Specially developed for use in the industrial refrigeration technology.



Legend to cross-section drawing

- 1 Connection fitting
- 2 Seals
- 3 Ceramic element
- 4 Hybrid electronics
- 5 Cable joint PG7

The distinct advantages

- Compact construction
- Manufactured by automatic assembly line to give ideal price/performance ratio
- Robust ceramic-sensor technology
- High resistance to extreme temperatures
- No mechanical ageing
- No mechanical creepage

Pressure ranges

Relative pressure/Gauge (measurement of pressure relative to ambient pressure)

Lowest pressure range 7 bar fs

Overload

2 x measuring range (fs) at full scale from 40 ... 60 bar max. 80 bar

Rupture pressure

3 x measuring range (fs) at full scale from 40 - 60 bar max. 90 bar

Accuracy

Total of linearity, hysteresis and repeatability < +/- 0.5 % fs (> 10 - 60 bar) < +/- 1.0 % fs (7 - 10 bar)

Adjustment accuracy zero point and full scale (repeatable)

0 – 5 V	± 50	mV
1– 6 V	± 50	mV
0 – 10 V	± 100	mV
10 – 90%	±	1%

Materials in contact with the medium Ceramic / Stainless steel 1.4305 Sealing material: CR

Housing material Cover Pa 6

Temperature influences

Medium and ambient temperature - 40 °C ... + 80 °C

10 60 bar	< +/- 0.04% fs
TC sensitivity	< +/- 0.015% fs
7 10 bar	< +/- 0.02% fs

Load cycle < 50 Hz

Dynamic response

Suitable for static and dynamic measurements. Response time: < 5 ms

Signal and power supply

0-5V	11 – 33 VDC	3-wire cable
1–6V	11 – 33 VDC	3-wire cable
0-10 V	18 – 33 VDC	3-wire cable
4-20 mA	11 – 33 VDC	2-wire cable
10 - 90%	4.5 - 6 VDC ration	n. 3-wire cable

Short circuit-proof and protected against polarity reversal. Each connection against other with max. +/- supply voltage.

Load

0 – 5V 1 – 6V 0 – 10V	> 10 kOhm/<100 nF > 10 kOhm/<100 nF > 10 kOhm/<100 nF
4–20 mA	$\leq \frac{\text{supply voltage - 11 V}}{0.02 \text{ A}}$ [Ohm]
10 – 90%	> 10 kOhm/<100 nF

Current consumption

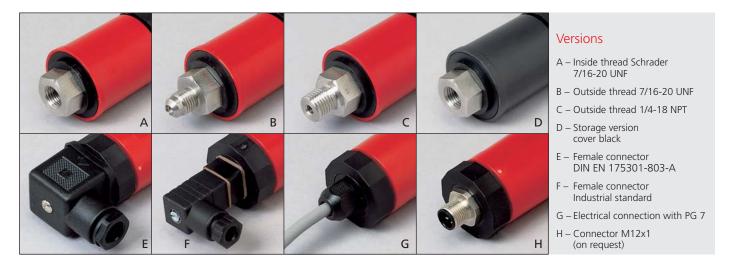
D – 5 V	2 mA
1–6V	2 mA
) – 10 V	3 mA
4 – 20 mA	20 mA
10 – 90%	2 mA

Electrical connections / Protection class

Cable 1.5 m	IP 65
Connector DIN EN 175301-803-A	IP 65
Connector Industrial standard	IP 65

Calibration

Calibrated in factory



Order code selection	n table				506.		Х	Х	Х	Х	Х	Х	Х	Х	X
Relative pressure						9									
Pressure ranges	Customer side	– 1 + 60 bar	(min. 7 bar fs)				х	х							
Sealing material	CR								А						
Calibration	Factory calibrate	d								0					
Output and power supply	0- 5 V	11 – 33 VDC	3-wire cable								1				
	1- 6 V	11 – 33 VDC	3-wire cable								6				-
	0 - 10 V	18 – 33 VDC	3-wire cable								2				-
	4- 20 mA	11 – 33 VDC	2-wire cable								3				-
	10 – 90%	4.5 – 6 VDC ratiom.	3-wire cable								4				
Electrical connections ²	Cable	1.5 m	Protection standard	IP 65								0			
	Connector	DIN EN 175301-803-A	Protection standard	IP 65								1			
	Connector	Industrial standard	Protection standard	IP 65								2			
Pressure connections ³	Inside thread	7/16-20 UNF Schrader											0		
	Outside thread	7/16-20 UNF											2		
	Outside thread	1/4 - 18 NPT											3		
Housing materials	Stainless steel	1.4305 (AISI 303)												1	
	Stainless steel	1.4305 (AISI 303)	with pressure tip orific	e										2	
Pressure range	Indicate W and s	state range on order													V
Accessories															
Accessories	Female connecto	or DIN EN 175301-803-	A												
	with seal (IP 65 v	when installed and latche	ed)		1	0	3	5	1	0					
		or Industrial standard when installed and latche	ed)		1	0	4	2	4	4					
Packaging	Mention on orde	er:													
5.5		ng with DIN connector o	103510					4.0	101						

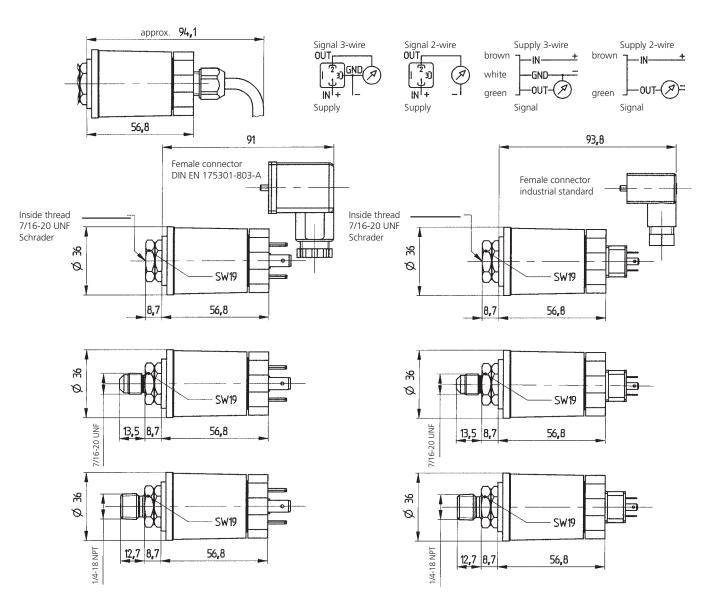
• Single packaging with DIN-connector order-no 103510 or connector industrial standard order-no 104244

Multiple packaging (25 pcs) DIN-connector order-no 103510 or connector industrial standard order-no 104244, enclosed separatly

Order example:

Specifications of customer: 506.9XXA02121W - 0,5 ... 7 bar turns to factory number: 506.930A02121W - 0,5 ... 7 bar

According to ISO standard R 1629, other sealing materials on request Without female connector Other connections and materials on request 2



Electromagnetic compatibility: CE conform	nity (EMC) by application of harmonize	ed standards: Interference stability EN 61000-6-1 and EN	I 61000-6-3
Interference stability	Test standard	Effect	
Electrostatic discharge (ESD)	EN 61000-4-2	8 kV air, 4 kV contact	no effect
High-frequency electromagnetic radiation (HF)	EN 61000-4-3	3 V/m, 80 1000 Mz	no effect
Conducted HF interference	EN 61000-4-6	3 V, 0.15 80 MHz	no effect
Fast transients (burst)	EN 61000-4-4	1 kV	no effect
Surge	EN 61000-4-5	max. tolerable cable length 10 m	no test
Magnetic fields	EN 61000-4-8	30 A/m, 50 Hz	no effect
Interference emit	Test standard		Effect
Conducted interference	EN 55022 (CISPR 22)	0.15 30 MHz	no emission
Radiation from housing		301000 MHz, 10 m	no emission

Headquarters

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