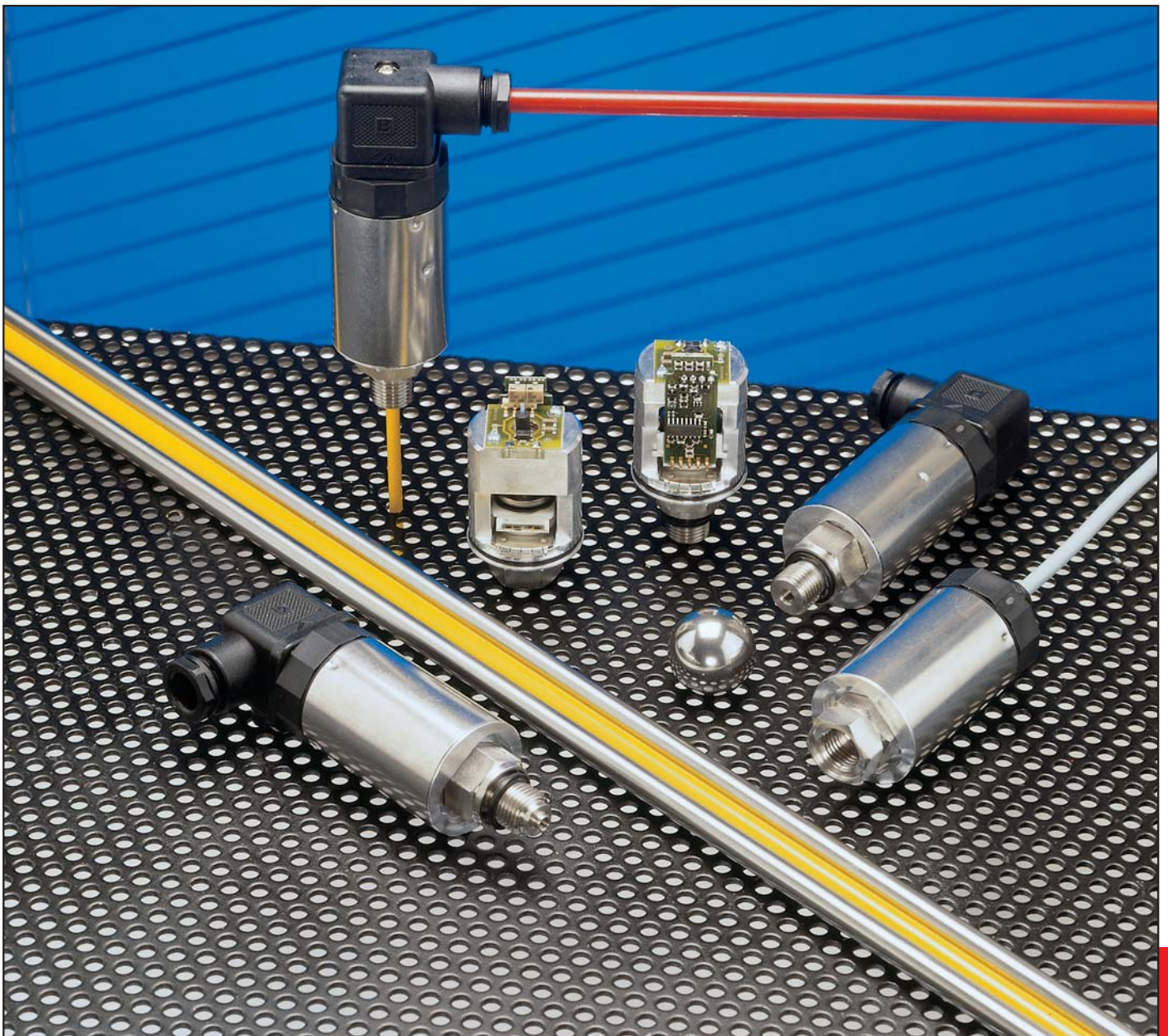


507

Pressure transmitter

Relative -1 ... 600 bar
Absolute 2.5 ... 16 bar



EDITION 5/2005

HUBA-REGISTERED TRADE MARK

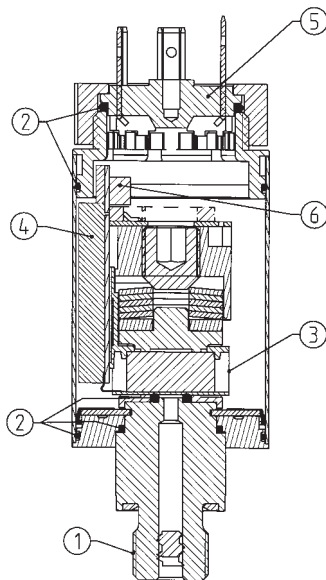
Huba Control

FOR FINE PRESSURE AND FLOW MEASUREMENT



Technical overview

The pressure transmitter of type series 507 with its proven ceramic technology, features calibrated and amplified sensor signals which are available as standardised voltage or current outputs. Various application specific pressure and electrical connections can be provided.



Legend to cross-section drawing

- 1 Connection fitting
- 2 Seals
- 3 Ceramic element
- 4 Electronics
- 5 Connector DIN EN 175301-803
- 6 Potentiometer for zero point and full scale

The distinct advantages

- Compact, rugged construction for a wide range of industrial applications
- Ideal from single pieces to small and larger quantities
- High resistance to extreme temperatures
- No mechanical ageing
- No mechanical creepage

Pressure ranges

Relative pressure (Gauge) (differential measurement of pressure relative to ambient pressure)
Absolute pressure

Overload

2x Measuring range (fs) max. 1000 bar

Rupture pressure

3x Measuring range (fs)
at 600 bar: 1200 bar

Accuracy

Total of linearity, hysteresis and repeatability
< +/- 0.3% fs

Adjustment accuracy zero point and full scale (repeatable)
< +/- 0.3% fs

Case material

Cover stainless steel

Materials in contact with the medium

Ceramic/Stainless steel 1.4305
Sealing material:
options FPM, EPDM, NBR, MVQ
acc. to order code selection table

Temperature influences

Medium and ambient temperature
- 15 ...+ 80 °C

Medium and ambient temperature
- 15 ...- 40 °C on request

TC zero point < +/- 0.04% fs (< 60 bar)

< +/- 0.05% fs (> 60 bar)

TC sensitivity < +/- 0.015% fs/K typ.

Load cycle

< 50 Hz

Dynamic response

Suitable for static and dynamic measurements.

Response time: < 5 ms

Pressure connections

Inside thread G 1/4
Outside thread G 1/4 sealed at back and manometer (combi)
Outside thread DIN 3852/E sealed at back

Weight

Version inside thread 140 g
Version outside thread 160 g

Installation arrangement

Unrestricted

Signal

0 – 5 V

1 – 6 V

0 – 10 V

4 – 20 mA

Power supply

11 – 33 VDC

3-wire cable

11 – 33 VDC

3-wire cable

18 – 33 VDC

3-wire cable

11 – 33 VDC

2-wire cable

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

Load

0 – 5 V

1 – 6 V

0 – 10 V

4 – 20 mA

> 10 k Ohm/<100 nF

> 10 k Ohm/<100 nF

> 10 k Ohm/<100 nF

$\leq \frac{\text{supply voltage} - 11 \text{ V}}{0.02 \text{ A}}$ [Ohm]

Current consumption

With max. signal output:

0 – 5 V

1 – 6 V

0 – 10 V

4 – 20 mA

< 2 mA

< 2 mA

< 3 mA

< 20 mA

Electrical connection / Protection standard

Cable 1.5 meters, IP 65

Connector DIN EN 175301-803-A, IP 65

Calibration by customer

Zero point and slope
+/- 2% fs



Versions

- A – Inside thread G 1/4
- B – Outside thread G 1/4
- C – Outside thread G 1/4 and manometer (combi)
- D – Female connector with seal DIN EN 175301-803-A
- E – Cable 1.5 m, IP 65

Order code selection table

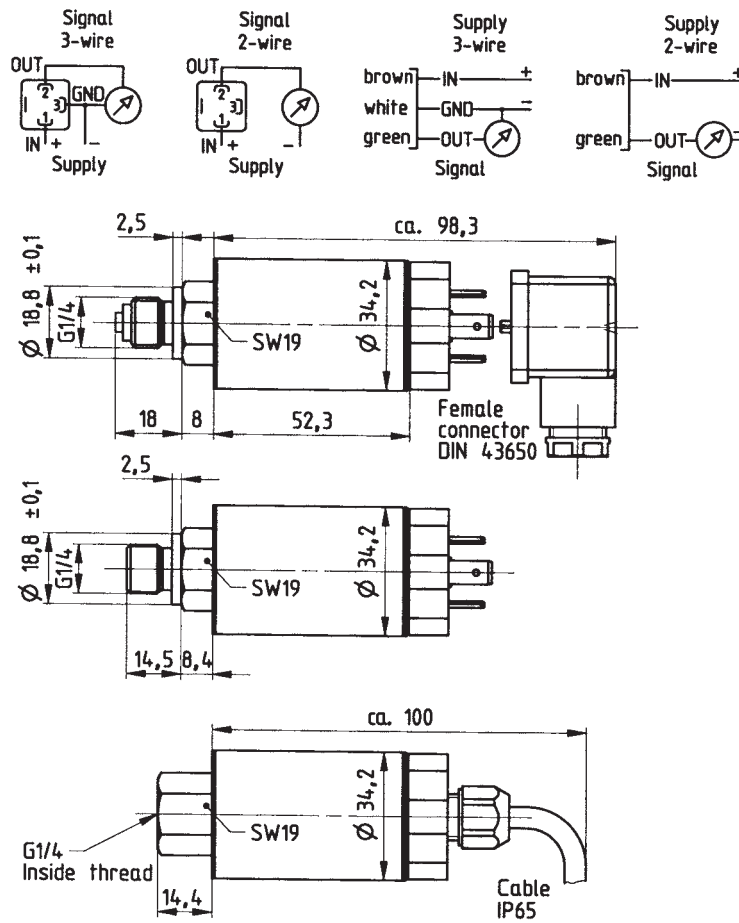
				507.	X	X	X	X	X	X	X	X	X	X	X
Relative pressure				9											
Absolute pressure				8											
Pressure ranges ¹	-1 ...+ 0 bar			9	0	0									
	0 ...+ 0.6 bar			9	1	0									
	0 ...+ 1 bar			9	1	1									
	0 ...+ 1.6 bar			9	1	2									
	0 ...+ 2.5 bar				1	4									
	0 ...+ 4 bar				1	5									
	0 ...+ 6 bar				1	7									
	0 ...+ 10 bar				3	0									
	0 ...+ 16 bar				3	1									
	0 ...+ 25 bar			9	3	2									
	0 ...+ 40 bar			9	3	3									
	0 ...+ 60 bar			9	4	0									
	0 ...+ 100 bar			9	4	1									2
	0 ...+ 160 bar			9	4	2									2
	0 ...+ 250 bar			9	4	3									2
	0 ...+ 400 bar	FPM seal only		9	5	4	0								2
	0 ...+ 600 bar	FPM seal only		9	5	5	0								2
	▲ Fullscale-Signal at these pressures														
Sealing materials ²	FPM	Fluoro-elastomer													0
	EPDM	Ethylene propylene													1
	NBR	Butadiene Acrylonitrile													2
	MVQ	Silicone polymer													3
Calibration	Factory calibrated, zero point and slope adjustable														1
Outputs and power supply	0 – 5 V	11.0 – 33.0 VDC	3-wire cable												1
	1 – 6 V	11.0 – 33.0 VDC	3-wire cable												6
	0 – 10 V	18.0 – 33.0 VDC	3-wire cable												2
	0 – 10 V	24 VAC +/- 15%	3-wire cable												7
	4 – 20 mA	11.0 – 33.0 VDC	2-wire cable												3
Electrical connections ³	Cable	1.5 m	IP 65												0
	Connector	DIN EN 175301803	IP 65												1
Pressure connections ⁴	Inside thread	G 1/4	with O-ring sealing												1
	Outside thread	G 1/4	sealed at back and manometer (combi)												5
	Outside thread	G 1/4	sealed at back DIN 3852/E												4
Process connection	Stainless steel 1.4305 (AISI 303)														1
	Stainless steel 1.4305 (AISI 303)	with pressure tip orifice (standard from 100 bar)													2
	Stainless steel 1.4305 (AISI 303)	free of oil and grease (only seal FPM, not compound-filled)													3
	Stainless steel 1.4305 (AISI 303)	with pressure tip orifice (standard from 100 bar) free of oil and grease (only seal FPM, not compound-filled)													4
Pressure range variation	Indicate W and state range on order														W

Accessories / Packaging

Accessories Female connector DIN EN 175301-803-A with seal 1 0 3 5 1 0

Packaging Mention on order: • Single packaging / • multiple packaging (25 pcs)

¹ Other pressure ranges on request
² According to ISO standard R 1629, other sealing materials on request
³ Without female connector
⁴ Other pressure connections and materials on request



Electromagnetic compatibility: CE conformity (EMC) by application of harmonized standards: Interference stability EN 61000-6-2 and EN 61326-1, interference emit EN 61000-6-3 and EN 61326-1

Interference stability	Test standard	Effect
Electrostatic discharge (ESD)	EN 61000-4-2 15 kV air, 8 kV contact	no effect
High-frequency electromagnetic radiation (HF)	EN 61000-4-3 10 V/m, 80 ... 1000 Mz	no effect
Conducted HF interference	EN 61000-4-6 10 V, 0.15 ... 80 MHz	no effect
Fast transients (burst)	EN 61000-4-4 4 kV	no effect
Surge	EN 61000-4-5 Line-Case 1 kV, 42 Ohm, 0.5 µF Line-Case, Line-Line 500 V, 12 Ohm, 9 µF	no failure
Magnetic fields	EN 61000-4-8 30 A/m, 50 Hz	no effect
Insulation voltage	500 VDC 350 VAC	no effect
Interference emit	Test standard	Effect
Conducted interference	EN 55022 (CISPR 22) 0.15... 30 MHz	no emission
Radiation from housing	30...1000 MHz, 10 m	no emission

Headquarters
 Huba Control Schweiz
 Industriestrasse 17
 CH-5436 Würenlos
 Telefon ++ 41 (0) 56 436 82 00
 Telefax ++ 41 (0) 56 436 82 82
 info.ch@hubacontrol.com

Huba Control United Kingdom
 Unit 3 Network Point, Range Road
 Witney Oxfordshire OX29 0YD
 Tel 01993 776667
 Fax 01993 776671
 info.uk@hubacontrol.com
www.hubacontrol.com

Agent for: