

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



EDITION 01/2002

HUBA-REGISTERED TRADE MARK



TC zero point
 $< \pm 0.04 \% \text{ fs}/^{\circ}\text{C}$ ($< 60 \text{ bar}$)
 $< \pm 0.05 \% \text{ fs}/^{\circ}\text{C}$ ($> 60 \text{ bar}$)

TC sensitivity
 typically $< \pm 0.015 \% \text{ fs}/^{\circ}\text{C}$

Load cycle

$< 50 \text{ Hz}$

Dynamic response

Suitable for static and dynamic measurements.

Response time $< 5 \text{ ms}$.

Pressure connections

Inside thread G 1/4

Outside thread G 1/4
 sealed at back and manometer (combi)

Outside thread G 1/4
 sealed at back DIN 3852/E

Weight

G 1/4 outside 160 grams
 G 1/4 inside 140 grams

Installation arrangement

Unrestricted

Signal Power supply

• 0 – 5 V	11 – 33 VDC 3-wire cable
• 1 – 6 V	11 – 33 VDC 3-wire cable
• 0 – 10 V	18 – 33 VDC 3-wire cable
• 4 – 20 mA	11 – 33 VDC 2-wire cable

• Short circuit-proof and protected against polarity reversal, each connection against other with max. $\pm$ supply voltage.

Load

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

Current consumption

With max. signal output:	
0 – 5 V	$< 2 \text{ mA}$
1 – 6 V	$< 2 \text{ mA}$
0 – 10 V	$< 3 \text{ mA}$
4 – 20 mA	$< 20 \text{ mA}$

Electrical connections / Protection standard

Cable 1.5 meters, IP 65
 Connector DIN 43650-A, IP 65

Calibration by customer

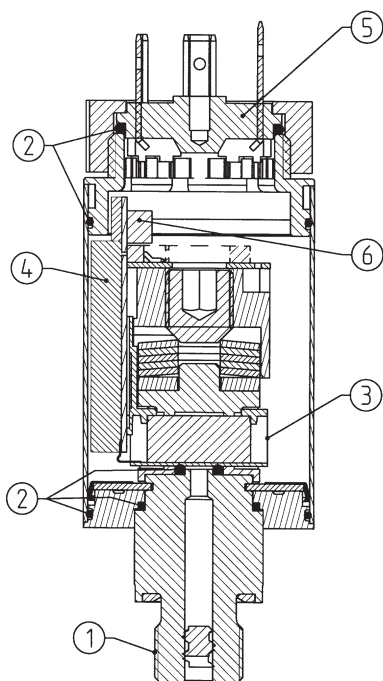
Zero point and slope
 $\pm 2 \% \text{ fs}$

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Technical overview

The pressure transmitter of type series 507 with proved ceramic technology, features calibrated and amplified sensor signals which are available as standardized 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 Hybrid electronics
- 5 Connector DIN 43650
- 6 Potentiometer for zero point and full scale

Pressure ranges

Relative pressure (Gage)
 (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 $< \pm 0.3 \% \text{ fs}$
 Adjustment accuracy zero point and full scale (repeatable, stable)
 $< \pm 0.3 \% \text{ fs}$

Housing materials in contact with the medium

Stainless steel 1.4305 (AISI 303)
 Sealing material:
 optionally FPM, EPDM, NBR, MVQ
 according to order code selection table

Case material

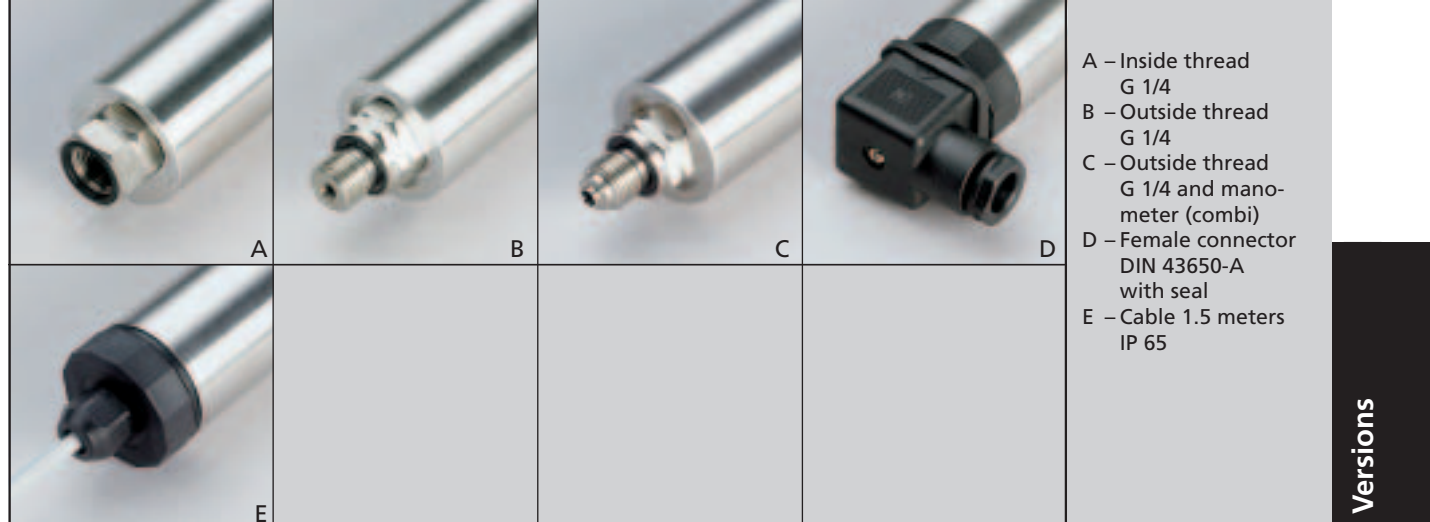
Cover: Stainless steel

Temperature influences

Medium and ambient temperature
 -15°C to $+80^{\circ}\text{C}$
 Medium and ambient temperature
 to -40°C on request

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 aging
- No mechanical creepage



A – Inside thread
G 1/4
B – Outside thread
G 1/4
C – Outside thread
G 1/4 and manometer (combi)
D – Female connector
DIN 43650-A
with seal
E – Cable 1.5 meters
IP 65

Versions

Order code selection table

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507

			X	X	X	X	X	X	X	X	X	X	X	X
Relative pressure			9											
Absolute pressure			8											
Pressure ranges ¹ (bar)	-1... + 0		9	0	0									
	0... + 1		9	1	1									
	0... + 1.6		9	1	2									
	0... + 2.5			1	4									
	0... + 4			1	5									
	0... + 6			1	7									
	0... + 10			3	0									
	0... + 16			3	1									
	0... + 25		9	3	2									
	0... + 40		9	3	3									
	0... + 60		9	4	0									
	0... + 100		9	4	1								2	
	0... + 160		9	4	2								2	
	0... + 250		9	4	3								2	
	0... + 400	Viton seal only	9	5	4	0							2	
	0... + 600	Viton seal only	9	5	5	0							2	
▲ Full scale signal at these pressures														
Sealing materials ²	FPM	Fluoro-elastomer (Viton)				0								
	EPDM	Ethylene propylene				1								
	NBR	Nitrile butadiene				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							
	4 – 20 mA	11.0 – 33.0	VDC 2-wire cable				3							
Electrical connections ³	Cable, 1.5 meters	(protection standard IP 65)						0						
	Connector DIN 43650-A	(protection standard 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)										2			
	pressure tip orifice (standard with 100 bar)													
Pressure range variation	Indicate W and mention range on order												W	

Accessories

Female connector DIN 43650-A with seal

1 0 3 5 1 0

Packaging

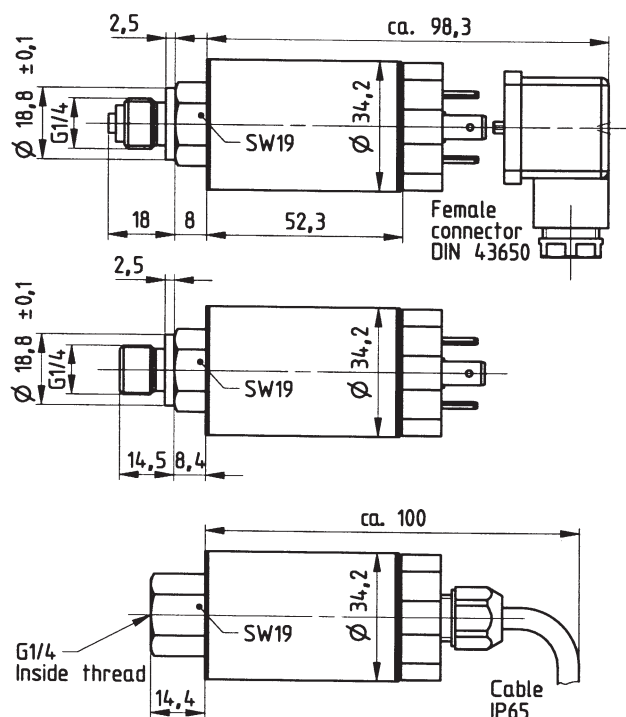
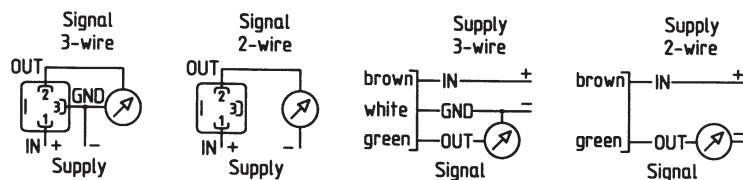
Mention on order: • single packaging / • multiple packaging (25 pcs)

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 50082-2, IEC 61000-6-2 and EN 61326-1, interference emit EN 50081-1, EN 55022, CISPR 22, EN 61326-1

Interference stability	Test standard	Effects
Electrostatic discharge ESD	EN 61000-4-2 15 kV air discharge, 8 kV contact discharge	No effect
High-frequency electromagnetic radiation (HF)	EN 61000-4-3 10 V/m, 80...1000 MHz	No effect
Conducted HF interference	EN 61000-4-6 10 V _{RMS} , 0.15 ... 80 MHz	No effect
Fast transients (burst)	EN 61000-4-4 4 kV	No effect
Surge	EN 61000-4-5 1 kV (42 Ohm, 0.5 µF) 500 V (12 Ohm, 9/18 µF)	No failure
Magnetic fields	EN 61000-4-8 30 A/m, 50 Hz	No effect
Insulation voltage	500 VDC 350 VAC	No effect No failure
Interference emit	Test standard	Effects
Conducted interference	EN 55022 0.15...30 MHz	No effect
Radiation from housing	30...1000 MHz, 10 meters	No effect

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