

# Relative and absolute pressure transmitter type 507

Pressure range  
-1 ... 0 – 600 bar



Type 507 series pressure transmitters can be produced individually from single pieces to medium sized production batches. The wide variety of versions and large number of pressure ranges allow many different applications. Additionally, customers have the option of zero point and slope adjustment.

- 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

## Technical overview

### Pressure range

Relative	-1 ... 0 – 600 bar
Absolute	0 ... 2.5 – 16 bar

### Operating conditions

Medium		Liquids and gases
Temperature	Medium / ambient	-15 ... +80 °C <sup>1)</sup>
Overload		2 x fs (max. 1000 bar)
Rupture pressure		3 x fs (max. 1200 bar)

### Materials

Case		Stainless steel 1.4305 / AISI 303
Materials in contact with medium	Sensor	Ceramic Al <sub>2</sub> O <sub>3</sub> (96%)
	Pressure connection	Stainless steel 1.4305 / AISI 303
	Sealing material	FPM, EPDM, NBR, MVQ

### Electrical overview

2 wire	Output	Power supply	Load	Current consumption <sup>2)</sup>
	4 ... 20 mA	11 ... 33 VDC	< $\frac{\text{supply voltage} - 11 \text{ V}}{0.02 \text{ A}}$ [Ohm]	< 20 mA
3 wire	0 ... 5 V	11 ... 33 VDC	> 10 kOhm / < 100 nF	< 2 mA
	1 ... 6 V	11 ... 33 VDC	> 10 kOhm / < 100 nF	< 2 mA
	0 ... 10 V	18 ... 33 VDC	> 10 kOhm / < 100 nF	< 3 mA
	0 ... 10 V	24 VAC ±15%	> 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.			
Insulation voltage			standard	500 VDC
			optional	1000 VDC

### Dynamic response

Response time	< 5 ms
Load cycle	< 50 Hz

### Calibration by customer

Zero point and slope	± 2% fs
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### Protection standard

IP 65	
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### Electrical connection

Cable 1.5 m	
Connector DIN EN 175301-803-A	

### Pressure connector

Inside thread	G 1/4	with o-ring seal
	7/16-20 UNF	Schrader ≤ 250 bar
Outside thread	G 1/4	sealed at back and manometer (combi)
	G 1/4	sealed at back, DIN 3852 form E
	G 1/2	sealed at back and manometer (combi)
	7/16-20 UNF	≤ 250 bar
	1/4 -18 NPT	≤ 250 bar
	R 1/4	acc. DIN 2999

### Installation arrangement

Unrestricted	
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### Tests / Admissions

Electromagnetic compatibility	CE conformity acc. EN 61326-2-3
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### Weight

With inside thread	~ 140 g
With outside thread	~ 160 g

### Packaging (Please state on order)

Single packaging in cardboard	
Multiple packaging in cardboard per 25 pcs.	

## Accuracy

Parameter		Unit	
Tolerance zero point	max.	% fs	± 0.3
Tolerance full scale	max.	% fs	± 0.3
Resolution		% fs	0.1
Total of linearity, hysteresis and repeatability	max.	% fs	± 0.4
TC zero point <sup>3)</sup>	max.	% fs/10K	± 0.4
TC sensibility <sup>3)</sup>	typ.	% fs/10K	± 0.15

Test conditions: 25 °C, 45% RH, Power supply 24 VDC  
TC z.p. / TC s. -15 ... +80 °C

<sup>1)</sup> -40 ... +80 °C on request

<sup>2)</sup> at max. output signal

<sup>3)</sup> TC = Temperature coefficient

Order Code Selection Table			507. X X X X X X X X X X X												
Pressure version	Relative		9												
	Absolute		8												
Pressure range <sup>1)</sup>	- 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	
▲ Full scale signal at these pressure															
Sealing material <sup>2)</sup>	FPM	Fluoro elastomer													0
	EPDM	Ethylene propylene													1
	NBR	Nitrile butadiene													2
	MVQ	Silicone polymer													3
Adjustment	Factory, zero point and slope adjustable														1
Output / power supply	0 ... 5 V	11.0 ... 33.0 VDC													1
	1 ... 6 V	11.0 ... 33.0 VDC													6
	0 ... 10 V	18.0 ... 33.0 VDC													2
	0 ... 10 V	24 VAC ±15%													7
	4 ... 20 mA	11.0 ... 33.0 VDC													3
Electrical connection	Cable 1.5 m														0
	Connector DIN EN 175301-803-A <sup>3)</sup>														1
Pressure connection <sup>4)</sup>	Inside thread	G ¼	with o-ring seal												1
	Inside thread	7/16-20 UNF Schrader	≤ 250 bar												0
	Outside thread	G ¼	sealed at back and manometer (combi)												5
	Outside thread	G ¼	sealed at back, DIN 3852 form E												4
	Outside thread	G ½	sealed at back and manometer (combi)												8
	Outside thread	7/16-20 UNF	≤ 250 bar												2
	Outside thread	¼-18 NPT	≤ 250 bar												3
	Outside thread	R ¼	DIN 2999												7
Version	Stainless steel 1.4305 (AISI 303)		without pressure tip orifice												1
	Stainless steel 1.4305 (AISI 303)		with pressure tip orifice (standard from 100 bar)												2
Pressure range variation	Indicate W and state on order (e.g.: W0... + 8 bar/OUT1...6V)														W

### Accessories <sup>5)</sup>

Female connector	DIN EN 175301-803-A with seal (IP 65, when installed and latched)	Order number
Calibration certificate		103510
		104551

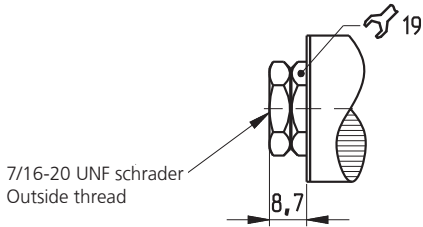
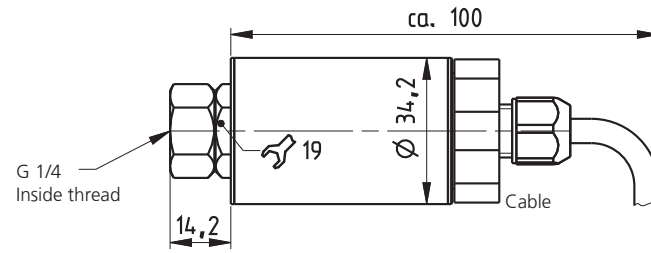
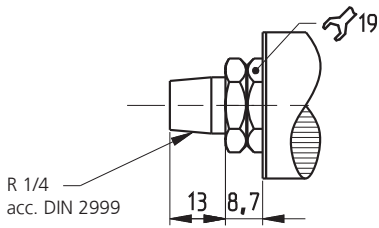
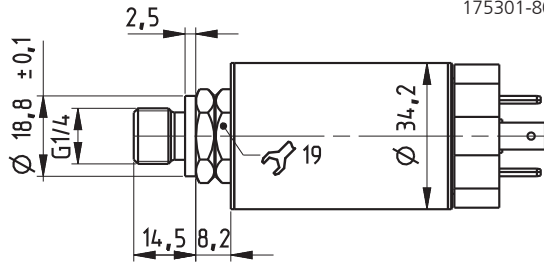
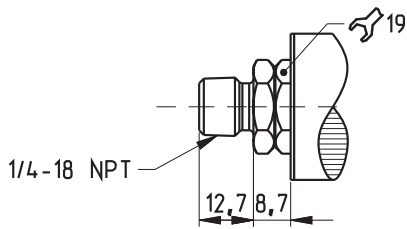
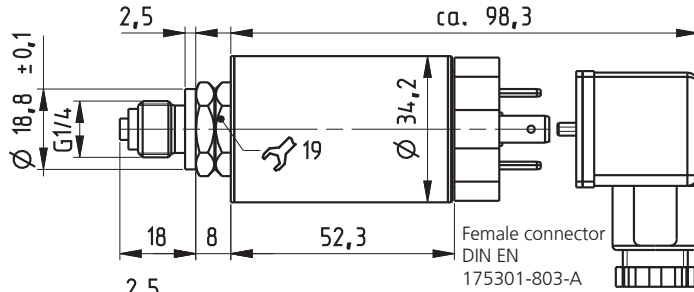
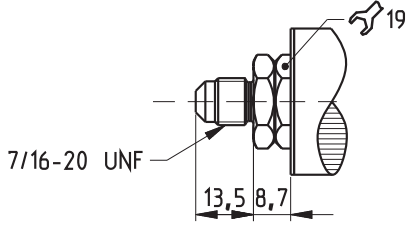
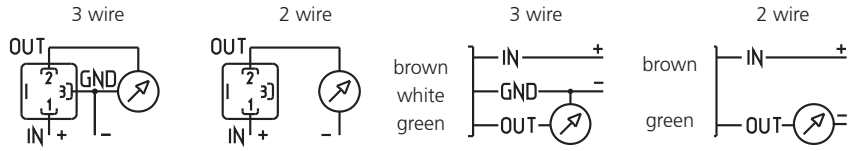
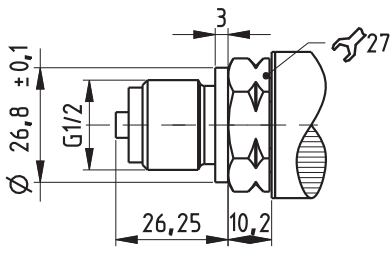
<sup>1)</sup> Other pressure range on request

<sup>2)</sup> Other sealing material on request

<sup>3)</sup> Delivery without female connector

<sup>4)</sup> Other pressure connector on request

<sup>5)</sup> Accessories supplied loose



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