



Pressure transmitter

Huba Control

OEM Relative and absolute pressure transmitter

Type 501

Type 501 pressure transmitters, with partially automated production processes, are suitable for larger quantity industrial OEM applications.

Various pressure and electrical connections, together with several standardised output signals, provide suitability for a wide variety of applications.



Pressure ranges -1 ... 0 – 60 bar

- + Compact construction
- + Automated manufacture in large quantities for ideal price / performance ratio
- + Robust ceramic sensor technology
- + High resistance to extremetemperatures
- + No mechanical creepage

Technical overview

Pressure range			
Relative			-1 ... 0 – 60 bar
Absolute			0 ... 2.5 – 16 bar
Operating conditions			
Medium			Liquids and gases
Temperature	Medium / ambient		-15 ... +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
Materials in contact with the medium	Sensor		Ceramic Al ₂ O ₃ (96%)
	Pressure connection		Stainless steel 1.4305 / AISI 303
	Sealing material		FPM, EPDM, NBR, MVQ
Electrical overview			
2 wire	Output	Power supply	Load
	4 ... 20 mA	8.0 ... 33 VDC	< $\frac{\text{Supply voltage} - 8\text{ V}}{0.02\text{ A}}$ [Ohm]
	4 ... 20 mA	10.0 ... 33 VDC	< $\frac{\text{Supply voltage} - 10\text{ V}}{0.02\text{ A}}$ [Ohm]
	0 ... 5 V	9.0 ... 33 VDC	> 10 kOhm / < 100 nF
3 wire	1 ... 6 V	10.4 ... 33 VDC	> 10 kOhm / < 100 nF
	0 ... 10 V	16.2 ... 33 VDC	> 10 kOhm / < 100 nF
	ration. 10 ... 90%	5 VDC ±5%	> 10 kOhm / < 100 nF
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			IP 65
Pressure connection			
Inside thread			G ¼ with O-Ring sealing
			¼ -18 NPT
			G ¼, sealed at back, ISO 1179-2 (DIN 3852-E)
			R ¼ EN 10226
Outside thread			G ¼, sealed at back and manometer (combi)
			G ½, sealed at back and manometer (combi)
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

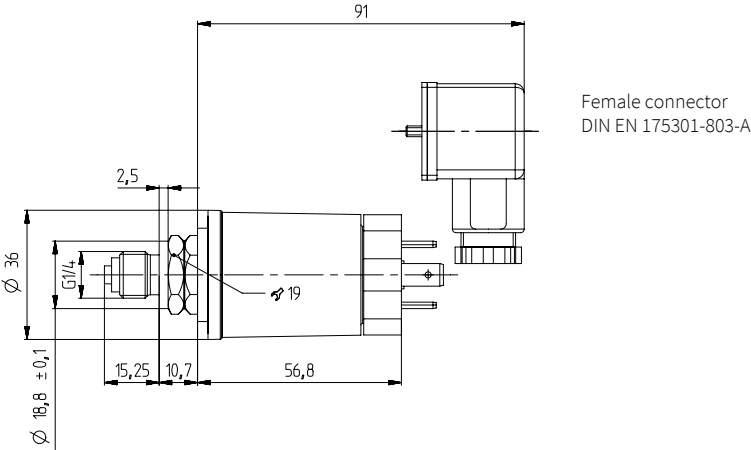
Parameter	Unite		
Tolerance zero point	max.	% fs	± 1.0
Tolerance full scale	max.	% fs	± 1.0
Resolution		% fs	0.1
Total of linearity, hysteresis and repeatability	max.	% fs	± 0.5
Long term stability acc. to DIN EN 60770		% fs	± 1.0
TC zero point ²⁾	max.	% fs/10K	± 0.4
TC sensitivity ²⁾	typ.	% fs/10K	- 0.15
TC sensitivity ²⁾	max.	% fs/10K	- 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		501.	X	X	X	X	X	X	X	X	X
Pressure mode	Relative	9									
	Absolute	8									
Pressure range	-1 ... 0 bar	9	0	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							
▲ Full scale signal at these pressures											
Sealing material ¹⁾	FPM Fluoro elastomer				0						
	EPDM Ethylene propylene				1						
	NBR Butadiene Acrylonitrile				2						
	MVQ Silicone polymer				3						
Adjustment	Factory					0					
Output / power supply	0 ... 5 V 9.0 ... 33 VDC						1				
	1 ... 6 V 10.4 ... 33 VDC						6				
	0 ... 10 V 16.2 ... 33 VDC						2				
	4 ... 20 mA 10.0 ... 33 VDC						3				
	4 ... 20 mA 8.0 ... 33 VDC						8				
Electrical connection	ratiom. 10 ... 90% 5 VDC ±5%						4				
	Cable 1.5 m							0			
	Connector ²⁾ DIN EN 175301-803-A								1		
	DIN EN 175301-803-C (industrial standard 9.4 mm)								2		
Pressure connection	M12x1 plastic thread								3		
	Inside thread G ¼ with O-Ring seal									1	
	¼ - 18 NPT									3	
	G ¼, sealed at back, ISO 1179-2 (DIN 3852-E)									4	
	R ¼ EN 10226									7	
	G ¼, sealed at back and manometer (combi)									5	
Pressure tip orifice	G ½, sealed at back and manometer (combi)									8	
	Without										1
Pressure range variation (optional)	With										2
	Indicate W and state range on order (e.g.: W0... + 9bar/OUT1...9V)										W

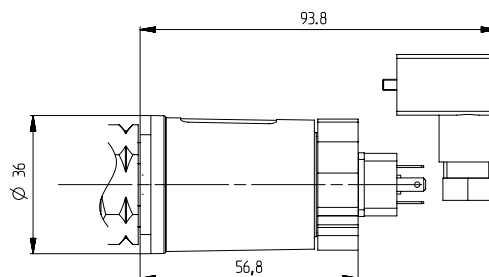
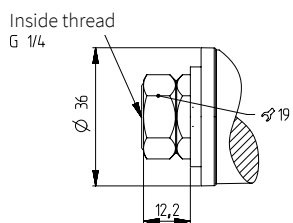
Storage versions		Order number	
Output	4 ... 20 mA	Pressure range	
Power supply	10 ... 33 VDC	-1 ... 0 bar	501.914023151W - 1...0 bar (high overload protection)
Electrical connection ²⁾	Connector DIN EN 175301-803-A, IP 65	0 ... 10 bar	501.930023151
Pressure connection	G ¼ sealed at back and manometer	0 ... 25 bar	501.932023151
Sealing material	FPM - Fluoro elastomer		
Colour of cover	black		



Accessories (supplied loose)		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		106975
Calibration certificate		104551

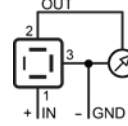
¹⁾ According to ISO standard R 1629, other sealing materials on request

²⁾ Without female connector

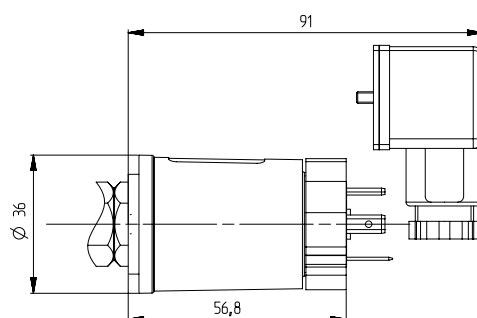
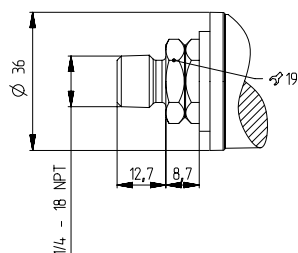
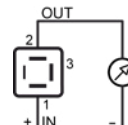


Female connector
DIN EN 175301-803-C

3 wire

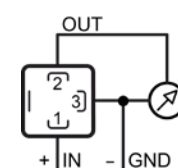


2 wire

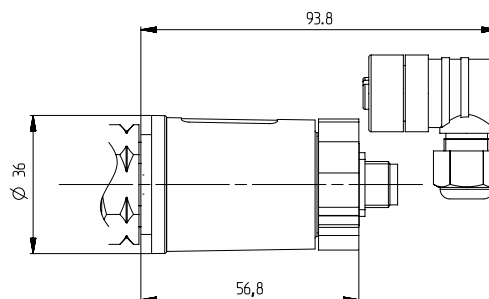
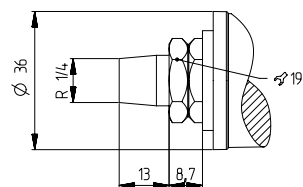
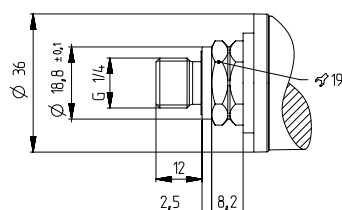
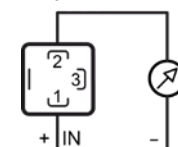


Female connector
DIN EN 175301-803-A

3 wire

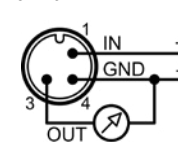


2 wire

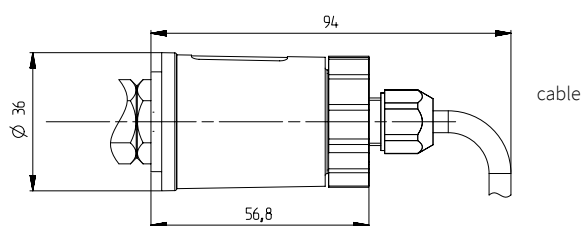
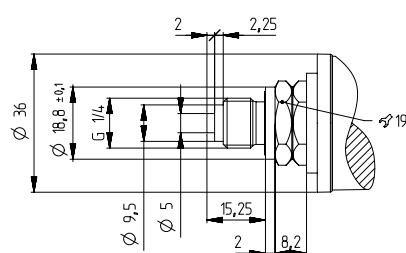
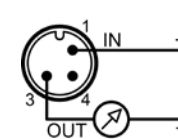


Female connector
M12x1

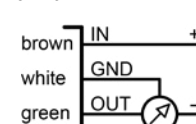
3 wire



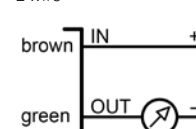
2 wire



3 wire



2 wire



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