

TRANSMITTER FOR PRESSURE AND TEMPERATURE ATM/T



Features

- Compact and robust stainless steel assembly 1.4435 (316L)
- Piezoresistive and Pt 100 measuring element
- Gauge, absolute or sealed gauge
- Standard DIN pressure ranges from 0...100 mbar to 0...1000 bar
- Calibration available for all common pressure units
- Complies with the EMC directive 89/336/EEC
- High reliability
- Short delivery time
- Customized versions due to modular assembly
- Available as level or flange transmitter
- Reverse polarity and short circuit protected
- Media temperature up to 150°C (optional)

Typical applications

- Machine installations
- Industrial process control
- Heating and ventilation
- Environmental monitoring
- Food industry
- Mobile hydraulics
- Test and calibration systems

Specifications

Pressure range	[bar]	0.1 ... 0.5	>0.5 ... 2	>2 ... 25	>25 ... 600	>600 ... 1000
Overpressure		3 bar	3 x FS (min. 3 bar)	3 x FS	3 x FS (max. 850 bar, optional 1500 bar)	1500 bar
Burst pressure	[bar]	≥ 30	≥ 30	3 x FS (min. 25)	>850 (optional 1500 bar)	1500
Accuracy ^{b)}	[± % FS]	≤ 0.5 (optional ≤ 0.25)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 0.5 (optional ≤ 0.25, ≤ 0.1)	≤ 1 (optional ≤ 0.5, ≤ 0.25)
Thermal shift	[± % FS/°C]					
Zero		0.06	0.03	0.015	0.015	0.015
	0 ... 70°C					
	-25 ... 85°C	0.08	0.04	0.02	0.02	0.02
Span		0.015	0.015	0.015	0.015	0.015
	0 ... 70°C					
	-25 ... 85°C	0.02	0.02	0.02	0.02	0.02
Response time		<1 ms/10 ... 90% FS				
Longterm stability (1 year)		<4 mbar	<4 mbar	<0.2% FS	<0.2% FS	<0.2% FS

^{b)} Zero based non-conformity according to DN16086, including hysteresis and repeatability

Temperature measuring range

Temperature measuring range	-25 ... 100°C
Optional measuring ranges	on request
lower range limit	-50°C
upper range limit	150°C
Accuracy (probe, electronics, adjustment)	± 2°C

Output signal	4 ... 20 mA	0 ... 20 mA	0 ... 5V / 0 ... 10V
Type	Current transmitter	Current transmitter	Voltage transmitter
Supply voltage (U _b)	15 ... 30 VDC	15 ... 30 VDC	15 ... 30 VDC
Supply voltage influence	<0.1% FS	<0.1% FS	<0.1% FS
Circuit diagram			
Load resistance	(U _b - 5V) / 0.02A	(U _b - 5V) / 0.02A	R _L > 10k Ohm
Load resistance influence	<0.1% FS	<0.1% FS	<0.1% FS

Materials

Process connection, diaphragm, housing	Stainless steel 1.4435 (316L)	(other materials on request)
Seals (standard)	Viton	(other materials see ordering information)

Electromagnetic compatibility

Standard	Level	Typical interferences
Emission: EN50081-1:1992 EN55022:1994	Generic emission standard Emission, class B	
Immunity: EN50082-2:1995 EN61000-4-2:1995 EN50140:1993 EN50204:1995 EN61000-4-4:1995 EN50141:1993	Generic immunity Electrostatic discharge Radiated electro-magnetic field Radiated electro-magnetic field (CEM) Fast transients (burst) Conducted radio-frequency	4kV contact, 8kV air 10V/m, 80-1000MHz, 80% AM 1kHz 10V/m, 950MHz, 200Hz on/off 2kV 10V, 0.15-80MHz, 80% AM 1kHz
		Cellular phones, radio sets Digital portable phones Motors, valves Cellular phones, radio sets



The pressure transmitter ATM full fulfills the emission and immunity requirements described in the EMC Directive 89/336/EEC

Ordering Information

		26	X	XXXX	XXXX	XX	XXX
Type	ATM/T	26					
Pressure type	Gauge	1					
	Absolute	2					
	Sealed gauge	3					
Pressure range	0...100 mbar			00			
	0...160 mbar			01			
	0...250 mbar			02			
	0...400 mbar			03			
	0...600 mbar			04			
	0...1.0 bar			05			
	0...1.6 bar			06			
	0...2.5 bar			07			
	0...4.0 bar			08			
	0...6.0 bar			09			
	0...10 bar			10			
	0...16 bar			11			
	0...25 bar			12			
	0...40 bar	3		13			
	0...60 bar	3		14			
	0...100 bar	3		15			
	0...160 bar	3		16			
	0...250 bar	3		17			
	0...400 bar	3		18			
	0...600 bar	3		19			
0...1000 bar	3		20				
	Special calibration			99			
Temp. measuring range	-25...100°C (standard)						
	customized temperature measurement range						
Process connection	G1/2 M, frontal diaphragm (Fig. 5)			14			
	G1/2 M, flush diaphragm (Fig. 6)			15			
	Special process connection			99			
Electrical connection	Connector DN 43650 (screwed on) ²⁾ (Fig. 10) IP 65					01	
	Connector Binder 723, 5-pin ²⁾ (Fig. 11) IP 67					03	
	Connector Binder 723, 5-pin (screwed on) ²⁾ (Fig. 12) IP 67					43	
	Connector MLC 26482, (10-6) ²⁾ (Fig. 13) IP 40					06	
	PE cable ³⁾ (Fig. 14) IP 67					13	
	PUR cable ³⁾ (Fig. 14) IP 67					15	
	Teflon cable ³⁾ (Fig. 14) IP 67					21	
	Special electrical connection					99	
Output signal	0... 5 VDC					46	
	0... 10 VDC					47	
	0... 20 mA					00	
	4... 20 mA					05	
	Special output signal					99	
Accuracy	Pressure						
	Temperature						
	≤ ± 0.5 % FS						0
	≤ ± 0.25 % FS						1
≤ ± 0.1 % FS (on request)						2	
Temperature range	Compensated 0...70°C (media temperature 0... 80°C)						0
	Compensated -25...85°C (media temperature -25...100°C)						1
	Compensated -25...85°C (media temperature -25...150°C)						2
	Special temperature range						9
Transmitter							
Options	Electronics packed in gut						
	Gauge pressure						C
	Absolute and sealed gauge pressure						D
	Special oil filling						
	ASEOL Food						G
	Habcarbon						H
Seals	EPDM						S
	Kalrez						T
Special options						Z	

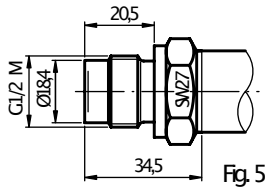
¹⁾ Zero offset and span adjustable

²⁾ Cable socket connector not included

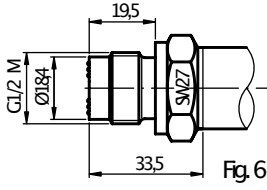
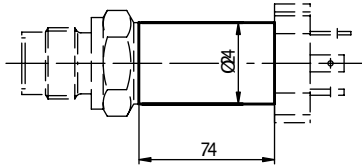
³⁾ Please specify the required cable length

⁴⁾ Suitable for drinking water (food approved)

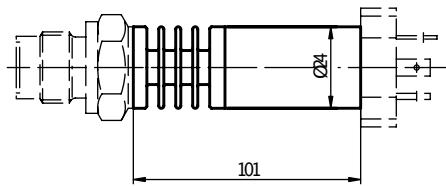
Pressure Connection



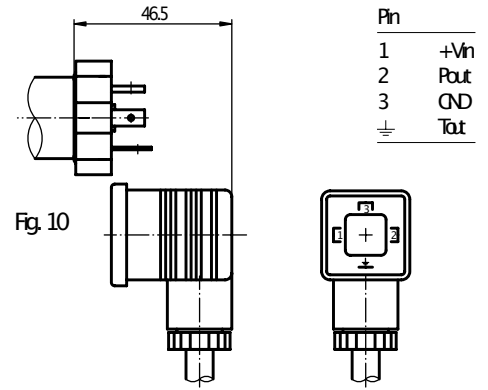
Version for max. temperature up to 100°C



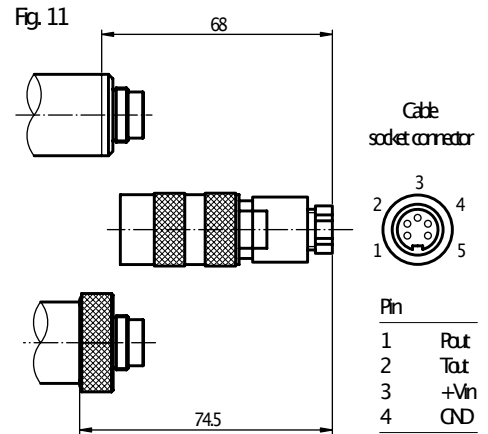
Version for max. temperature up to 150°C



Electrical Connection

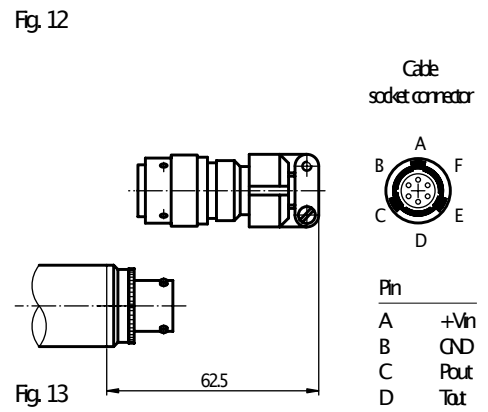


Pin	
1	+V _{in}
2	P _{out}
3	GN
⊥	T _{out}



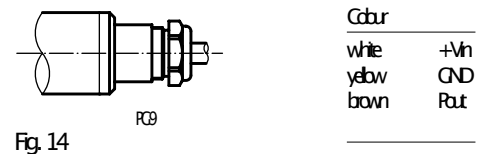
Cable socket connector

Pin	
1	P _{out}
2	T _{out}
3	+V _{in}
4	GN



Cable socket connector

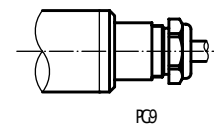
Pin	
A	+V _{in}
B	GN
C	P _{out}
D	T _{out}



Cable socket connector

white	+V _{in}
yellow	GN
brown	P _{out}

Fig. 14



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