

Pressure Transmitter

ATM.mini - Miniature Transmitter



CUSTOMER BENEFITS

- High accuracy over a wide temperature range
- Customization thanks to a modular product design
- No medium incompatibilities due to an all welded design
- Miniature design for applications with space restrictions

Technical Specifications

PRESSURE MEASURING RANGE (BAR)

	1 ... 100
Overpressure	3 x FS
Burst pressure	> 350 bar
Accuracy (1)	
Standard	<0.2 % FS
Premium	<0.1 % FS
Total Error, (typ. / max.) (2)	<0.5 / <0.8 % FS
Response time, (typ.)	< 1ms / 10...90% FS
Long term stability (3)	< 0.1% FS / < 0.2% FS

(1) Zero based accuracy according to DIN-16086, incl. hysteresis and repeatability at ambient temperature

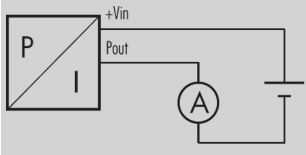
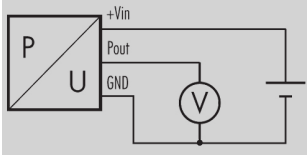
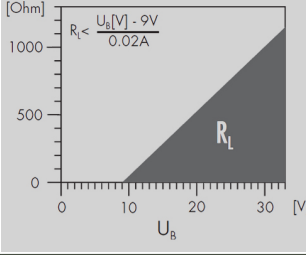
(2) Total error including accuracy and temperature influences

(3) 1 year (typ. / max.)

TEMPERATURE RANGE

	4 ... 20 mA	0.5 ... 4.5 VDC
Compensated temperature range		
Standard	0 ... 70°C	0 ... 70°C
Advanced	-25 ... 100°C	-25 ... 100°C
Premium	n.a.	-40 ... 125°C
Operating temperature	-40 ... 100°C	-40 ... 125°C
Process temperatur	-40 ... 100°C	-40 ... 125°C
Storage temperatur	-40 ... 125°C	-40 ... 125°C

ELECTRICAL SPECIFICATIONS

	4 ... 20 mA	0.5 ... 4.5 V
Power supply	9 ... 33 VDC	8 ... 30 VDC
Supply influence	< 0.05% FS	< 0.05% FS
Current consumption	---	< 3 mA
Circuit diagram		
Load resistance		$R_L > 10k\Omega$
Start up time	< 170 ms	< 170 ms
Impact self-heating	<0.2 % FS (1)	N.A.
Dielectric strength	> 50 MΩ / 50 VDC	> 50 MΩ / 50 VDC

(1) Only with dynamic pressure change over the entire measuring range

QUALIFICATIONS

	Description	Level	Typical interferences
EN 55022	Emission, class B (1)	< 30 dBμV/m (0.03...6 GHz)	
EN 60068-2-27	Shock	300 G (3 Axis, half sine, 6ms)	
EN 60068-2-6	Vibration	20 G (10...2000 Hz, 3 axis)	
EN 61000-4-2	Electrostatic discharge (1)	4 kV contact / 8 kV air	
EN 61000-4-3	Irradiated RF (1)	10 V/m (0.08...6 GHz, 1s)	Radio sets, wireless phones
EN 61000-4-4	Transients (burst) (1)	2 kV	Motors, valves
EN 61000-4-6	Conducted RF (1)	10 V (0.15...80 MHz, 1s)	Frequency converters

(1) Cable version with connected shield

PHYSICAL SPECIFICATIONS

Materials	
Transducer	Stainless steel (316L / 1.4435)
Housing	Stainless steel (316L / 1.4404)
Seals (1)	Viton / EPDM
Cable	PUR

(1) Seal on pressure port (M8 and M10)

Additional documents

OPERATING AND SAFETY INSTRUCTIONS

Article number	
10.88.0425	DMM040

Ordering information

	X.	XXXX.	XXXX.	XX.	XXX
Type					
	ATM.mini				
Pressure type					
	Gauge	1			
	Absolute (vacuum)	2			
Pressure measuring range					
	1 bar ... 100 bar	99			
Process connection					
	1/8 NPT M, (Fig. 4)	87			
	3/8 - 24 UNJF - 3A, (Fig. 2)	86			
	M8 x 1 M, (Fig. 3)	88			
	M10 x 1 M, (Fig. 1)	24			
	Customized connection	99			
Electrical connection					
	PUR cable, IP 67, black, Ø 4mm, (Fig. 6), (6), (25), (26), (28)	60			
	M12 (Lumberg RSF4), 4 pins, (Fig. 7), (1), (28)	07			
	DIN 9.4mm (Mini DIN), (Fig. 5), (1)	75			
	MIL C 26482, (Fig. 8), (1), (28)	06			
	Customized connection	XX			
Output signal					
	0.5 ... 4.5 VDC, (Fig. 9)	41			
	4 ... 20 mA, (Fig. 10)	05			
Accuracy					
	≤ ± 0.2 % FS	4			
	≤ ± 0.1 % FS	2			
Temperature range					
	0 ... 70°C compensated	0			
	-25 ... 100°C compensated	1			
	-40 ... 100°C compensated	3			
	-40 ... 125°C compensated, (27)	5			
Option 1					
	Seal: Viton (Standard, process connection M8/M10)				U
	Seal: EPDM (Process connection M8/M10)				S
Option 2					
Option 3					

(1) Cable socket connector not included

(6) Please specify the required cable length

(25) Max. environmental temperature 125°C

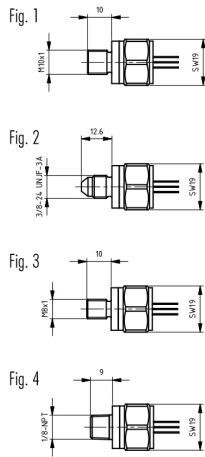
(26) Max. cable length 30 m

(27) Only for voltage output

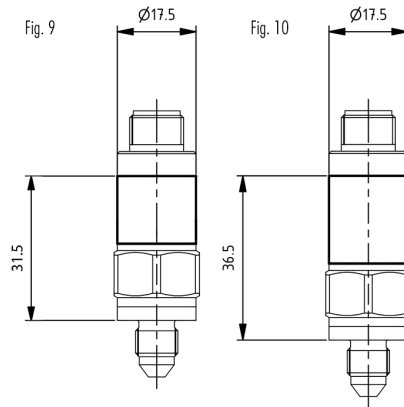
(28) Only absolute version

Technical drawings

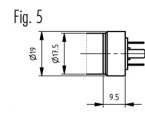
Pressure Connections



Dimensions

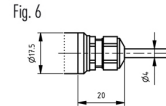
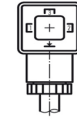


Electrical Connections



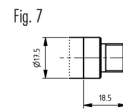
Mini DIN

Pin	2-Wire	3-Wire
1	+Vin	+Vin
2	Pout	Pout
3		GND

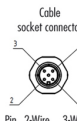


Kabel

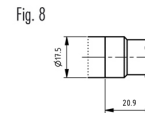
Colour	2-Wire	3-Wire
white	+Vin	+Vin
yellow	Pout	GND
brown		Pout
black	Shield	Shield



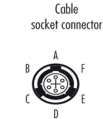
M12x1



Pin	2-Wire	3-Wire
1		GND
3	Pout	Pout
4	+Vin	+Vin



MIL C26482



Pin	2-Wire	3-Wire
A	+Vin	+Vin
B		GND
C	Pout	Pout

Specifications may change without notice.

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