

Intrinsically safe flange pressure transmitters

ATM/F/Ex



Version: 28.03.2012



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Technical Specifications

Pressure measuring range (bar)

	0.1 ... 0.5	> 0.5 ... 2	> 2 ... 25
Overpressure	3 bar	3 x FS (≥ 3 bar)	3 x FS
Burst pressure	> 200 bar	> 200 bar	> 200 bar
Accuracy, (1), (± % FS)	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1
Thermal shift, (± % FS/°C)			
Zero point 0...70°C	≤ 0.06	≤ 0.03	≤ 0.015
Zero point -25...85°C	≤ 0.08	≤ 0.04	≤ 0.02
Span 0...70°C	≤ 0.015	≤ 0.015	≤ 0.015
Span -25...85°C	≤ 0.02	≤ 0.02	≤ 0.02
Long term stability, (2)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

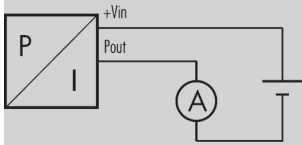
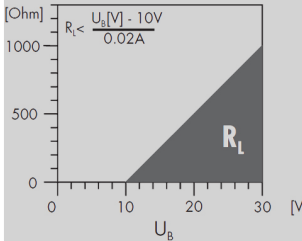
(1) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(2) 1 year (typ. / max.)

Temperature range

Operating temperature	-25...85 °C
Process temperatur	-25...100 °C
Storage temperatur	-25...85 °C

Electrical specifications

	4 ... 20 mA
Power supply	10...33 V DC
Supply influence	< 0.1% FS
Circuit diagram	
Load resistance	
Load influence	< 0.1% FS

ATEX Approval

Certificate, (1)	SEE 99 ATEX 2640		
Gas	II 1G Ex ia IIC T3 / T4 / T6	EN 60079-0 / -11 / -26	
Dust	II 1D Ex iaD 20 IP6x Tx°C	EN 61241-0 / -11	
Mining	I M1 Ex ia I	EN 50303	
Temperature class, (2)	T6	T4	T3
Ambient temperature	-25...55 °C	-25...85 °C	-25...85 °C
Process temperature	-25...55 °C	-25...100 °C	-25...100 °C
Maximum values of the intrinsically safe circuit	30V / 100 mA / 1W		

(1) For detailed Ex specifications see certificate and operating an safety instructions

(2) Without any information about temperature class the transmitter will be delivered for T4

Additional approvals

FM	3027351
CSA	2012692

Qualifications

	Description	Level	Typical interferences
EN 61000-4-2	Electrostatic discharge	4 kV contact 8 kV air	
EN 61000-4-3	Irradiated RF	10V/m (0.08...1 GHz)	Radio sets, wireless phones
EN 61000-4-4	Transients (burst)	2 kV	Motors, valves
EN 61000-4-5	Surge	10 kA (8 / 20 µs), (1)	Lightning
EN 61000-4-6	Conducted RF	10 V (0.15...80 MHz)	Frequency converters

(1) Only with optional surge (lightning) protection

Physical specifications

Materials	
Transducer	Stainless steel (316L / 1.4435)
Housing	Stainless steel (316L / 1.4404)
Cable	PUR, PTFE

Accessories

Overview

10.00.0091	Accessories overview
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Additional documents

Operating and safety instructions

	Article number
10.88.0092	DMM029

Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type					
	ATM/F/Ex	35			
Pressure type					
	Gauge	1			
	Absolute pressure (vacuum)	2			
Pressure measuring range					
	Any pressure measuring ranges between 0...100 mbar and 0...25 bar available	XX			
Process connection					
	Milk flange DN 25 - DIN 11851, (Fig. 1), (1)	30			
	Milk flange DN 40 - DIN 11851, (Fig. 2), (1)	31			
	Milk flange DN 50 - DIN 11851, (1)	32			
	Clamp 1", (Fig. 3)	40			
	Clamp 1 1/2", (Fig. 3)	41			
	DIN flange DN 25, PN 16	45			
	DIN flange DN 40	46			
	Customized connections available	XX			
Electrical connection					
	DIN 43650, demountable, IP 65, (Fig. 10), (2)		01		
	Binder 723, 5-pin, demountable, IP 67, (Fig. 12), (2)		43		
	MIL C26482, 10-6, IP 40, (Fig. 13), (2)		06		
	PUR cable, blue, IP 67, (Fig. 14), (3), (4)		15		
	PTFE cable, blue, IP 67, (Fig. 14), (3)		21		
	Customized connection available		99		
Output signal					
	4...20 mA		05		
	4...20 mA with surge (lightning) protection		08		
Accuracy					
	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS (on request)			2	
Temperature range					
	0...70 °C compensated (allowed process temperature: 0...80 °C)			0	
	-25...85 °C compensated (allowed process temperature: -25...100 °C)			1	
Option 1					
	Special oil filling: ASEOL Food (for food applications)				G
	Special oil filling: Halocarbon (for oxygen applications) (5)				H
Option 2					
Option 3					

(1) Nut included

(2) Cable socket connector not included

(3) Please specify the required cable length and medium

(4) For operating temperature > 50°C, PTFE cable must be used

(5) min. Medium temperature -25 °C

Technical drawings

Pressure connection

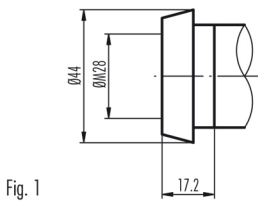


Fig. 1

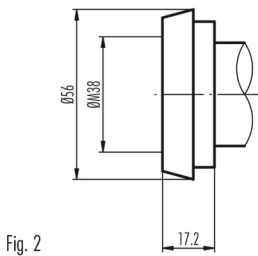


Fig. 2

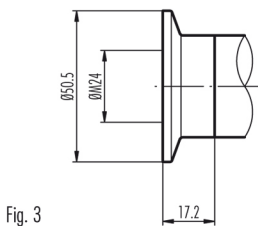
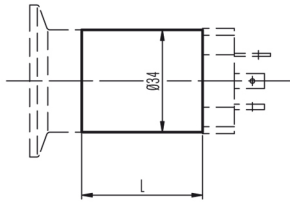


Fig. 3

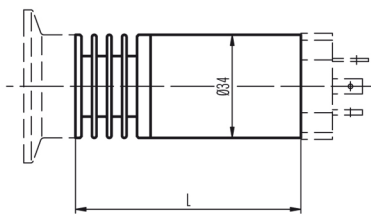
Dimensions

Version for media temperature up to 100°C



L = 90 mm for version with surge (lightning) protection
L = 40 mm for all other versions

Version for media temperature >100°C up to 150°C



L = 125 mm for version with surge (lightning) protection
L = 75 mm for all other versions

Electrical connections

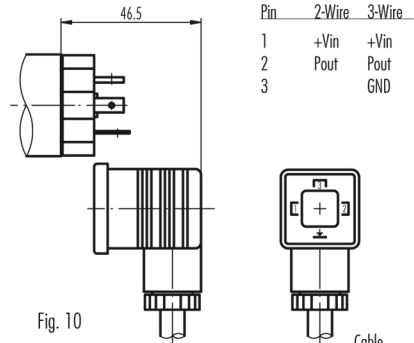


Fig. 10

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

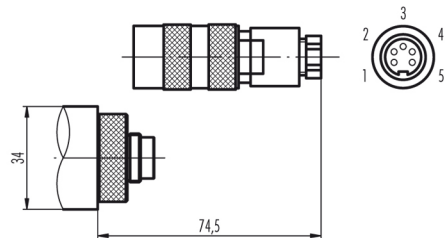


Fig. 12

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

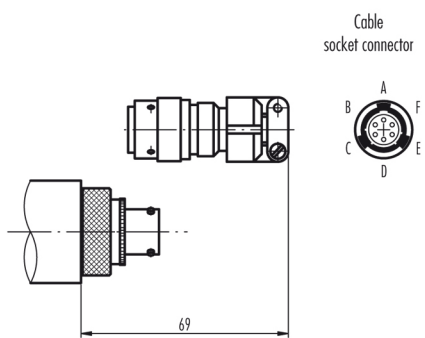


Fig. 13

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

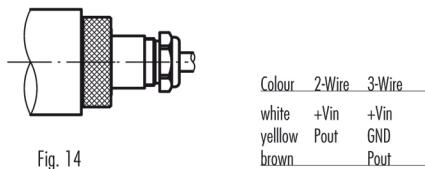


Fig. 14

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

Specifications may change without notice.

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