

Intrinsically safe flange pressure transmitters

**ATM/F/Ex**

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# Technical Specifications

## Pressure measuring range (bar)

	0.1 ... 0.5	> 0.5 ... 2	> 2 ... 25
<b>Overpressure</b>	3 bar	3 x FS (≥ 3 bar)	3 x FS
<b>Burst pressure</b>	> 200 bar	> 200 bar	> 200 bar
<b>Accuracy, (1), (± % FS)</b>	≤ 0.5 / ≤ 0.25	≤ 0.5 / ≤ 0.25 / ≤ 0.1	≤ 0.5 / ≤ 0.25 / ≤ 0.1
<b>Thermal shift, (± % FS/°C)</b>			
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
<b>Long term stability, (2)</b>	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

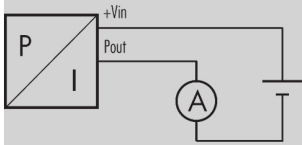
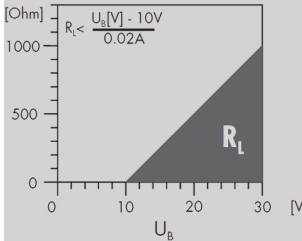
(1) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

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

## Temperature range

<b>Operating temperature</b>	-25...85 °C
<b>Process temperatur</b>	-25...100 °C
<b>Storage temperatur</b>	-25...85 °C

## Electrical specifications

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

## ATEX Approval

<b>Certificate, (1)</b>	SEE 99 ATEX 2640		
<b>Gas</b>	II 1G Ex ia IIC T3 / T4 / T6	EN 60079-0 / -11 / -26	
<b>Dust</b>	II 1D Ex iaD 20 IP6x Tx°C	EN 61241-0 / -11	
<b>Mining</b>	I M1 Ex ia I	EN 50303	
<b>Temperature class, (2)</b>	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
<b>Maximum values of the intrinsically safe circuit</b>	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

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### Additional approvals

<b>FM</b>	3027351
<b>CSA</b>	2012692

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### Qualifications

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

(1) Only with optional surge (lightning) protection

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### Physical specifications

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

## Accessories

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### Overview

<b>10.00.0091</b>	Accessories overview
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## Additional documents

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### Operating and safety instructions

	Article number
<b>10.88.0092</b>	DMM029

## Ordering information

		X. XXXX.	XXXX.	XX.	XXX
<b>Type</b>					
	ATM/F/Ex	35			
<b>Pressure type</b>					
	Gauge	1			
	Absolute pressure (vacuum)	2			
<b>Pressure measuring range</b>					
	Any pressure measuring ranges between 0...100 mbar and 0...25 bar available	XX			
<b>Process connection</b>					
	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			
	Clamp 2"	42			
	DIN flange DN 25, PN 16	45			
	DIN flange DN 40	46			
	DIN flange DN 50	47			
	Customized connections available	XX			
<b>Electrical connection</b>					
	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		
<b>Output signal</b>					
	4...20 mA		05		
	4...20 mA with surge (lightning) protection		08		
<b>Accuracy</b>					
	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS (on request)			2	
<b>Temperature range</b>					
	0...70 °C compensated (allowed process temperature: 0...80 °C)			0	
	-25...85 °C compensated (allowed process temperature: -25...100 °C)			1	
<b>Option 1</b>					
	Special oil filling: ASEOL Food (for food applications)				G
	Special oil filling: Halocarbon (for oxygen applications)				H
<b>Option 2</b>					
<b>Option 3</b>					

(1) Nut included

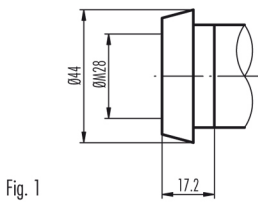
(2) Cable socket connector not included

(3) Please specify the required cable length and medium

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

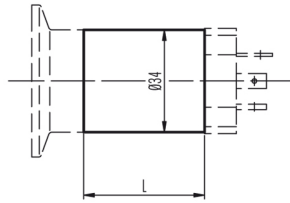
# Technical drawings

## Pressure connection



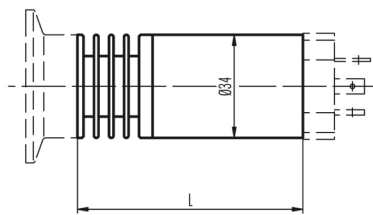
## Dimensions

Version for media temperature up to 100°C



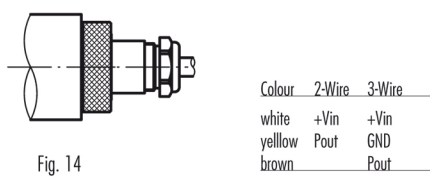
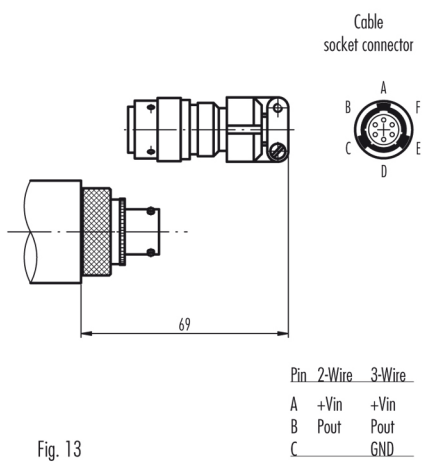
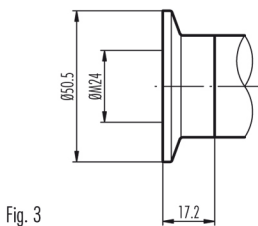
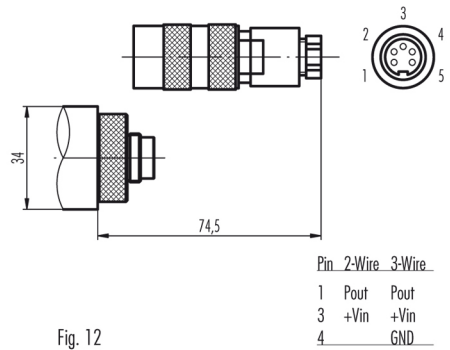
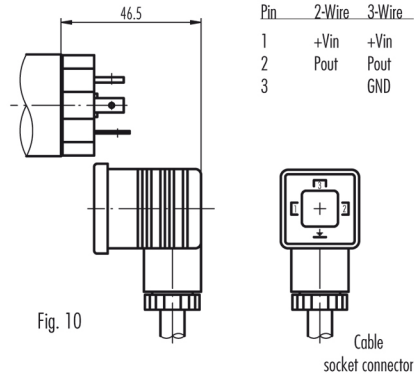
L = 90 mm for version with surge (lightning) protection  
L = 40 mm für all other versions

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



Specifications may change without notice.

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