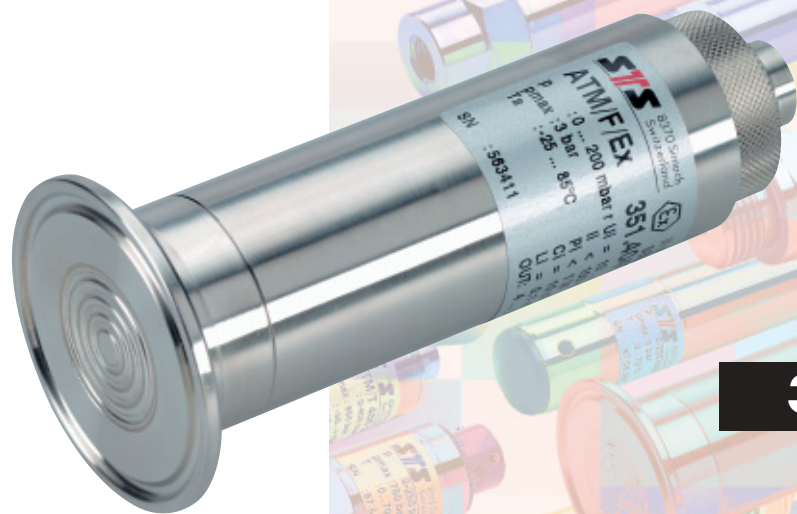


INTRINSICALLY SAFE FLANGE PRESSURE TRANSMITTER ATM/F/Ex

**35**

CE  II 1G EEx ia IIC T3...T6

Features

- Compact and robust stainless steel assembly 1.4435 (316L)
- Piezoresistive measuring element
- Gauge or absolute
- All pressure ranges between 0...50 mbar and -1...1000 bar available
- Calibration available for all common pressure units
- High reliability
- Short delivery time
- Customized versions due to modular assembly
- Reverse polarity and short circuit protected
- Media temperature up to 150°C (optional)
- Surge (lightning) protection according to EN 61000-4-5 as an option

Typical applications

- In hazardous areas
- Chemical
 - Pharmaceutical industry
 - Environmental industry
 - Food processing

Specifications

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

Electrical connection

Type	4...20 mA Two wire current transmitter	
Supply voltage	10...30 V DC	
Supply voltage influence	< 0.1% FS	
Circuit diagram		Load resistance influence < 0.1% FS

Ex-Approval

Type of protection	intrinsic safety II 1G EEx ia IIC T3...T6	SEE Certificate SEE 99 ATEX 2640	
Standards	EN 50 014: 1992 EN 50 020: 1994 EN 50 284: 1997	general requirements intrinsic safety "i" special requirements zone 0 zener barrier	
Max. values for supply/output circuit	30V / 100mA / 1W		
Temperature class	T6	T4	T3
Ambient temperature Ta	[°C] -25...55	-25...85	-25...85
Process temperature	[°C] -25...55	-25...100	-25...150
Without any information about temperature class the transmitter will be labelled T4. Ex-Approval for dust on request.			

Materials

Process connection, diaphragm, housing	Stainless steel 1.4435 (316L)	(other materials on request)
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Electromagnetic compatibility

Standard	Level	Typical interferences
Emission:		
EN 61000-6-3 EN 55022	Generic emission standard Emission, class B	
Immunity:		
EN 61000-6-2	Generic immunity	
EN 61000-4-2	Electrostatic discharge	4kV contact, 8kV air
EN 61000-4-3	Radiated electro-magnetic field	10V/m, 80-1000 MHz, 80% AM 1kHz
EN 61000-4-3	Radiated electro-magnetic field (GSM)	10V/m, 950 MHz, 200Hz on/off
EN 61000-4-4	Fast transients (burst)	2 kV
EN 61000-4-6	Conducted radio-frequency	10V, 0.15-80 MHz, 80% AM 1kHz
EN 61000-4-5	Surge	10 kA (8/20 μs) ²⁾
		Cellular phones, radio sets Digital portable phones Motors, valves Cellular phones, radio sets Lightning strikes

¹⁾ Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

²⁾ Only with optional surge (lightning) protection

³⁾ 50 – 99 mbar: ≤ 0.12

⁴⁾ 50 – 99 mbar: ≤ 0.16

Ordering Information

		35	X	.XXXX	.XXXX	.XX	.XXX
Type	ATM/F/Ex	35					
Pressure type	Gauge	1					
	Absolute	2					
Pressure range	All pressure ranges between 0...50 mbar and -1...1000 bar available		XX				
Process connection	Milk flange DN 25 – DIN 11851 ³⁾	(Fig. 1)			30		
	Milk flange DN 40 – DIN 11851 ³⁾	(Fig. 2)			31		
	Milk flange DN 50 – DIN 11851 ³⁾				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		
Other process connector available				XX			
Electrical connection	Connector DIN 43650 (screwed on ²⁾) ⁴⁾	(Fig. 10)	IP 65			01	
	Connector Binder 723, 5-pin (screwed on ²⁾) ⁴⁾	(Fig. 12)	IP 67			43	
	Connector MIL C26482, (10-6) ⁴⁾	(Fig. 13)	IP 40			06	
	PUR cable, blue ¹⁾	(Fig. 14)	IP 67			17	
	Teflon cable, blue ¹⁾	(Fig. 14)	IP 67			22	
	Other connector available					XX	
Output signal	4...20 mA					05	
	4...20 mA surge (lightning) protection					08	
Accuracy	≤ ± 0.5 % FS					0	
	≤ ± 0.25 % FS					1	
	≤ ± 0.1 % FS (on request)					2	
Temperature class	T6 (Ta: -25...55°C comp.)					0	
	T4 (Ta: -25...85°C comp.)					1	
	T3 (Ta: -25...85°C comp., max. media temp. 150°C)					2	
Options	Special oil filling: ASEOL Food						G
	Halocarbon						H
	Special options						Z

¹⁾ Please specify the required cable length

²⁾ Zero offset and span adjustable

³⁾ Coupling nut included

⁴⁾ Cable socket connector not included

Pressure Connection

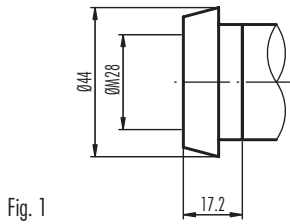


Fig. 1

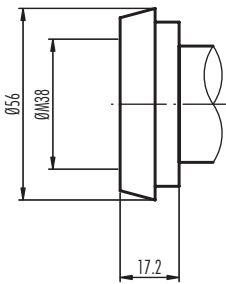


Fig. 2

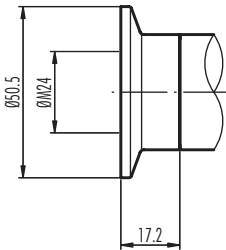
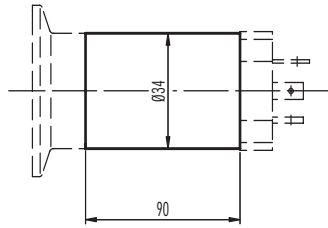


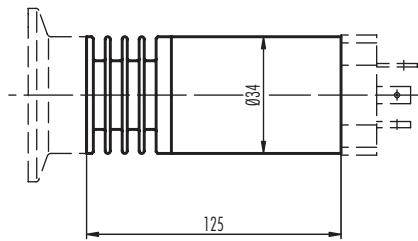
Fig. 3

Dimensions

Version for temperature class T4...T6

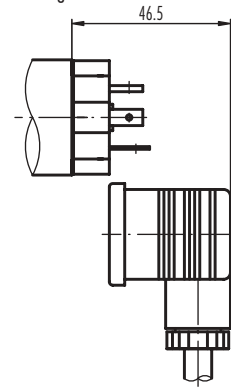


Version for temperature class T3



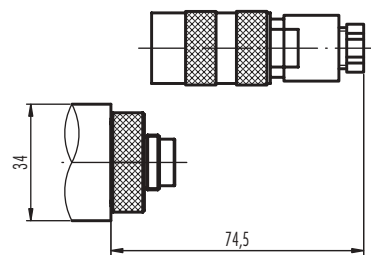
Electrical Connection

Fig. 10

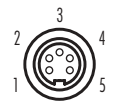


Pin	2-Wire
1	+Vin
2	Pout
⊥	EP

Fig. 12

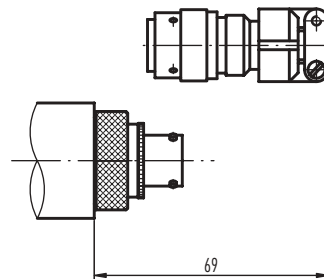


Cable socket connector



Pin	2-Wire
1	Pout
3	+Vin
5	EP

Fig. 13

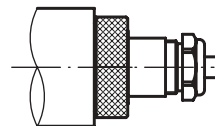


Cable socket connector



Pin	2-Wire
A	+Vin
C	Pout
F	EP

Fig. 14



Colour	2-Wire
white	+Vin
yellow	Pout
grey	EP

Specifications may change without notice.

DEDO21A

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