

Pressure Transmitter - ATEX certified

ATM/F/Ex-Hygienic Pressure Transmitter



Customer benefits

- Certificate: ATEX & EAC
- Welded and compact design for washdowns without residuals
- Surface roughness of flush process connection $Ra \leq 0.4$ for highest hygienic standards
- Demountable electrical connector option allow adjustment of zero and span setting in the field
- Fast customization thanks to modular product design
- Short response times suitable for dynamic pressure measurements

Version: 04.05.2016

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, (1)	> 200 bar	> 200 bar	> 200 bar
Accuracy, (2), (± % 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, (3)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

(1) Transducer

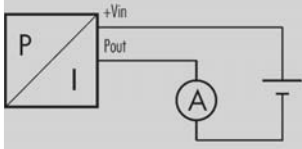
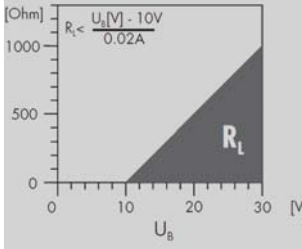
(2) Zero based accuracy according to DIN-16086, incl. hysteresis and repeatability at ambient temperature

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

Temperature range

Operating temperature	-25 ... 85°C
Process temperatur	-25 ... 150°C
Storage temperatur	-25 ... 85°C

Electrical specifications

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

ATEX Approval

Certificate, (1)	SEV 11 ATEX 0142		
Gas	II 1G Ex ia IIC T3 ... T6	EN 60079-0 / -11 / -26	
Dust	II 1D Ex iaD 20 IP6x T125°C ... T80°C		
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...150 °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
FMc	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, (1)	Surge	10 kA (8 / 20 µs), (1)	Overvoltage
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, FEP
Seals	Viton
Surface roughness of the flush (Ra)	0.4 - 0.8

Accessories

Overview

10.00.0091	Accessories overview
-------------------	----------------------

Additional documents

Operating and safety instructions

10.88.0092	Article number DMM029
-------------------	--------------------------

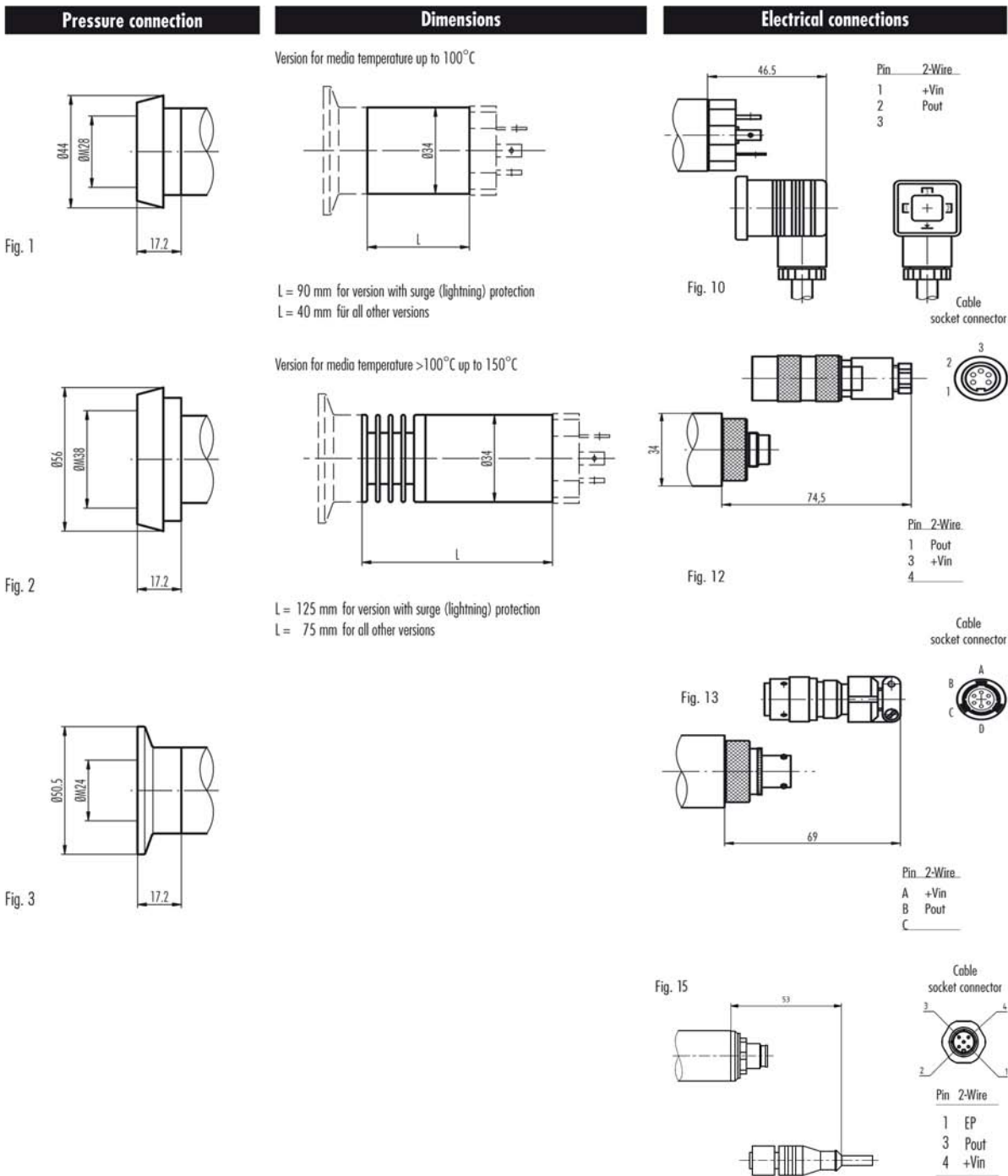
Ordering information

		X. XXXX.	XXXX.	XX.	XXX
Type					
	ATM/F/Ex	35			
Pressure type					
	Gauge	1			
	Absolute pressure (vacuum)	2			
	Sealed gauge	3			
Pressure measuring range					
	100 mbar ... 25 bar	XX			
Process connection					
	Milk flange DN 25 - DIN-118511 (Fig. 1), (1)	30			
	Milk flange DN 40 - DIN-11851 (Fig. 2), (1)	31			
	Milk flange DN 50 - DIN-11851 (1)	32			
	Clamp 1", DN 25 (Fig. 3)	40			
	Clamp 1 1/2", DN 25 (Fig. 3)	41			
	DIN flange DN 25	45			
	DIN flange DN 40	46			
	DIN-flange DN 50	47			
	Customized	99			
Electrical connection					
	DIN-43650, with metal threaded part, demountable, IP 65 (Fig. 10), (2)		01		
	M16 (Binder 723), 5 pins, (2)		03		
	M16 (Binder 723), 5 pins, demountable, IP 67 (Fig. 12), (2)		43		
	MIL C26482, 10-6, IP 40 (Fig. 13), (2)		06		
	M12 (Lumberg RSF4), 4 pins (Fig. 15), (2)		07		
	Customized		99		
Output signal					
	4 ... 20 mA		05		
	4 ... 20 mA with surge overvoltage protection		08		
Accuracy					
	≤ ± 0.5 % FS			0	
	≤ ± 0.25 % FS			1	
	≤ ± 0.1 % FS			2	
Temperature range					
	T6 (Ta:-25 ... 55°C) 0 ... 70°C compensated (allowed process temperature: -25 ... 55°C)			0	
	T4 (Ta:-25 ... 85°C) -25 ... 85°C compensated (allowed process temperature: -25 ... 100°C)			1	
	T3 (Ta:-25 ... 85°C) -25 ... 85°C compensated (allowed process temperature: -25 ... 150°C), with cooling fins			2	
Option 1					
	Special oil filling: Anderol Food (for food applications)				G
	Special oil filling: AS100 (suitable in media temp. -55 ... 150°C)				J
	Special oil filling: PAO4 (silicone free)				Q
Option 2					
	Seal: Viton (Standard)				U
Option 3					

(1) Nut included

(2) Cable socket connector not included

Technical drawings



Specifications may change without notice.

STS Headquarters, Switzerland:
 STS Sensor Technik Sirmach AG
 Rütihofstrasse 8, 8370 Sirmach, Switzerland
 sales@stssensors.com | www.stssensors.com

STS France:
 STS France
 844 Route de la Caille, 74350 Allonzier la Caille, France
 info-fr@stssensors.com | www.stssensors.fr

STS Germany:
 STS Sensoren Transmitter Systeme GmbH
 Poststrasse 7, 71063 Sindelfingen, Germany
 info-de@stssensors.com | www.stssensors.de

STS Great Britain:
 STS Great Britain Ltd.
 Box 3942 | Warwick | CV34 9AE, United Kingdom
 contact@stssensors.com | www.stssensors.co.uk

STS Italy:
 STS Italia s.r.l.
 Via Gesù 5, 20090 Opera (Milano), Italy
 info-italia@stssensors.com | www.stssensors.it