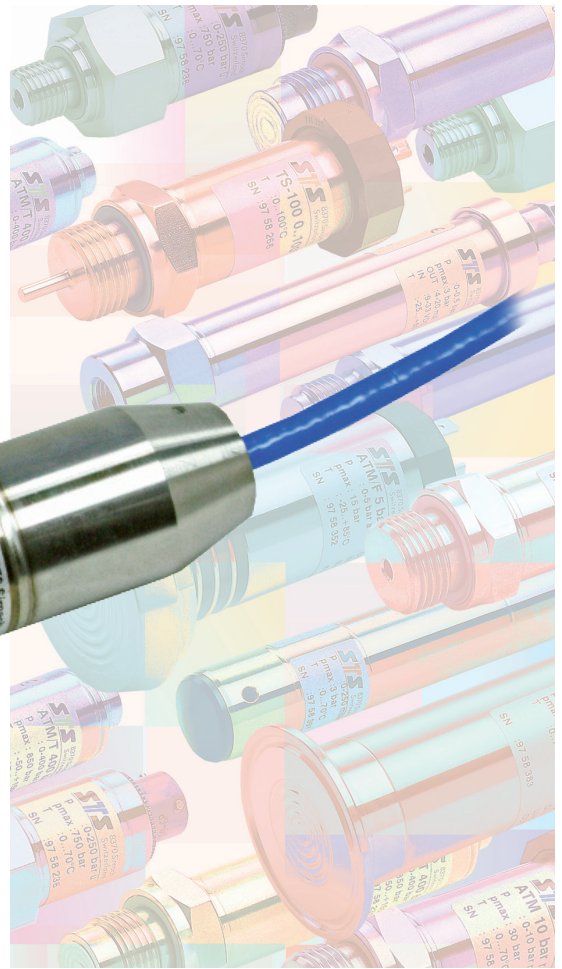


PRESSURE TRANSMITTER FOR LEVEL

ATM.ECO/N
ATM.ECO/N/Ex



Ex II 1G Ex ia IIB/IIC T3...T6
II 1D Ex iaD 20 IP6x T145...T70°C

Features

- Compact and robust stainless steel assembly 1.4435 or titanium
- Piezoresistive measuring element
- Measuring ranges from 0...1mH₂O to 0...250mH₂O
- Calibration available for all common pressure units
- Reverse polarity and short circuit protected
- High EMV stability
- Customized versions due to modular assembly

Typical applications

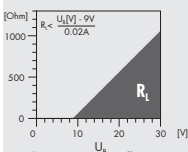
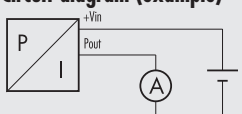
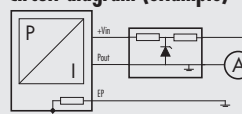
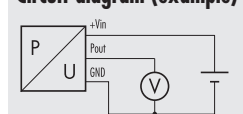
Depth and level measurement in

- Wells
- Bore holes
- Waste water
- Reservoirs
- Lakes, rivers
- Sewage treatment plant

Specifications ATM.ECO/N and ATM.ECO/N/Ex

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
Total Error Band ¹⁾ [± % FS]			
ATM.ECO/N (typ./max.)	-5...50°C	1.0/1.5	0.7/1.0
(typ./max.)	-5...80°C	2.0/2.5	1.0/1.5
Accuracy ²⁾ [± % FS]	≤ 0.25 (optional ≤ 0.1)	≤ 0.25 (optional ≤ 0.1)	≤ 0.25 (optional ≤ 0.1)
Medium temperature	-5...80°C		
Storage temperature	-10...80°C		
Response time	<1ms/10...90 %FS		
Long term stability (typ./max.)	< 0.5 %FS / < 4 mbar	< 0.2 %FS / < 4 mbar	< 0.1 %FS / < 0.2 %FS

Electrical output

Type ATM.ECO/N	4...20mA	Type ATM.ECO/N/Ex	4...20mA	Type ATM.ECO/N	0...5V/0...10V	Load resistance 
Supply voltage	9...33 VDC	Supply voltage	9...30 VDC	Supply voltage	12...30 VDC	
Supply voltage influence	< 0.05 %FS	Supply voltage influence	< 0.05 %FS	Supply voltage influence	< 0.05 %FS	
Circuit diagram (example)		Circuit diagram (example)		Circuit diagram (example)		

Ex-Approval gas / dust

Approval	SEV 09 ATEX 0108	II 1G Ex ia IIB/IIC T3...T6		
Standards		II 1D Ex iaD 20 IP6x T145...T70°C		
		EN 60079-0 / EN 60079-11 (gas)		
		EN 61241-0 / EN 61241-11 (dust)		
Temperature class		T6	T4	T3
Ambient temperature Ta	[°C]	-5...50	-5...80	-5...80
Process temperature	[°C]	-5...50	-5...80	-5...80

Without any information about temperature class the transmitter will be delivered for T6.
For detailed Ex-specifications see the assembly instruction manual.

Materials

Process connection, diaphragm, housing	Stainless steel 1.4435 or titanium (option)
Seals	Viton (other materials see ordering information)

Qualification

Standard	Level	Typical interferences	
Mechanical charges:			
EN 60068-2-6	Vibration	10g (4...2000 Hz, deflection ± 10 mmp)	
EN 60068-2-27	Shock	100g (impulse duration 6 ms)	
Emission:			
EN 55022	Emission, class B	< 30 dBμV/m (0.03...1 GHz)	
Immunity:			
EN 61000-4-2	Generic immunity	8 kV contact, 15 kV air	
EN 61000-4-3	Electrostatic discharge	10 V/m, 0.08...2.7 GHz, 80% AM 1 kHz, 3 s	Cellular phones, radio sets
EN 61000-4-4	Fast transients (burst)	4kV	Motors, valves
EN 61000-4-5	Surge	Line-Line: 0.5 kV/42 Ω, Line-Earth: 1 kV/42 Ω	Lightning strikes
EN 61000-4-6	Conducted radio-frequency	10 V, 0.15...80 MHz, 80% AM 1kHz, 3s	Cellular phones, radio sets

¹⁾ Total Error Band incl. accuracy, temperature influences, temperature error zero and span, hysteresis and repeatability by max. signal span (16mA)

²⁾ Zero based non-conformity according to DIN16086, including hysteresis and repeatability by ambient temperature



Ordering information

		ATM.ECO/N	X	. XXXX	. XXXX	. XX	. XXX
		ATM.ECO/N/Ex					
Type	ATM.ECO/N						
	ATM.ECO/N/Ex						
Pressure type	Gauge		1				
	Absolute (vacuum)		2				
Pressure range	Any pressure ranges between 0...1mH2O and 0...250mH2O available			XX			
Version	Closed (Fig. 1)					55	
	Open (Fig. 2)					56	
	G 1/4 M (Fig. 3)					11	
	G 1/2 M (Fig. 3)					13	
	Special versions available					XX	
Electrical connection	Connectable version ¹⁾ (Fig. 4)	IP 68				07	
	PE cable ^{2) 4)}	IP 68				13	
	PUR cable ^{2) 3)}	IP 68				15	
	Teflon cable ²⁾	IP 68				21	
	PUR cable, blue ^{2) 3) 5)}	IP 68				17	
	Teflon cable, blue ^{2) 5)}	IP 68				22	
Output signal	4...20mA					05	
	0...5V DC (no Ex version)					46	
	0...1.0V DC (no Ex version)					47	
Accuracy	≤ ± 0.25 % FS					1	
	≤ ± 0.1 % FS					2	
Temperature range⁶⁾	-5...50°C compensated (allowed medium temperature -5...50°C)					4	
	-5...80°C compensated (allowed medium temperature -5...80°C)					5	
Temperature class⁷⁾	T6 (Ta: -5...50°C) -5...50°C compensated (allowed medium temperature -5...50°C)					3	
(Ex version)	T4 (Ta: -5...80°C) -5...80°C compensated (allowed medium temperature -5...80°C)					5	
Options	Version titanium						K
	Ballast weight						B
	Special oil filling in the TD:	ASEOL Food					G
		Halocarbon					H
	Seals: Viton (standard)						U
	EPDM						S
	Kalrez						T

¹⁾ Connector with required cable has to be ordered separately (KART100)

²⁾ Please specify the required cable length

³⁾ For medium temperature > 50°C a PE or teflon cable must be used

⁴⁾ Food approved

⁵⁾ Cable types ATM.ECO/N/Ex

⁶⁾ Temperature range for ATM.ECO/N

⁷⁾ Temperature class for ATM.ECO/N/Ex

Dimensions

Fig. 1 Closed version

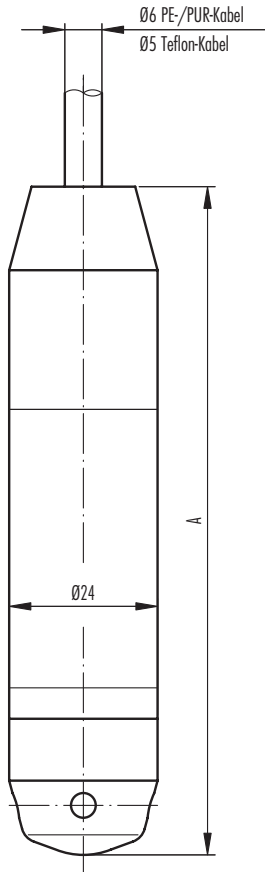


Fig. 2 Open version

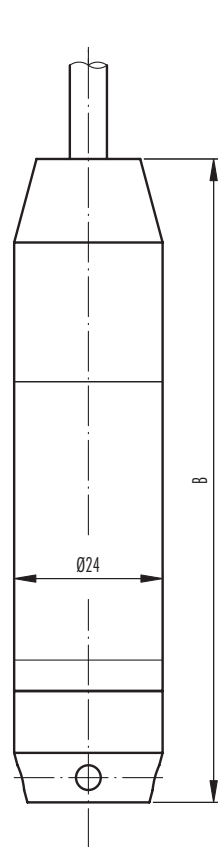


Fig. 3 With process connection

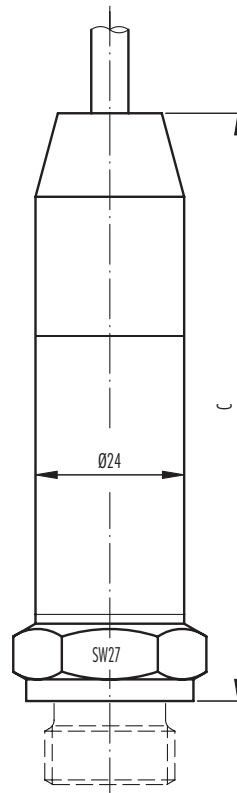
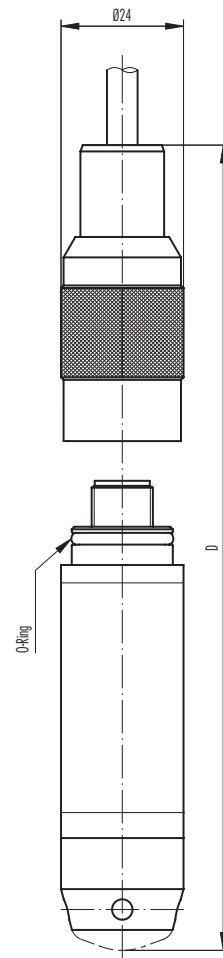


Fig. 4 Electrical connection, connectable



	A [mm]	B [mm]	C [mm]	D [mm]	Weight [g]
without ballast weight	88	84	on request*	119*	ca. 145
with ballast weight	175	171	on request*	201*	ca. 405

*C: Depending on process connection

Colour	2-wire	3-wire
white	+Vin	+Vin
yellow	Pout	GND
brown		Pout
grey	EP (only Ex)	

Specifications may change without notice.

10.00.0308.A

09/2009

Switzerland	Germany	Italy	France	Great Britain
STS Sensor Technik Sirnach AG Rütihofstrasse 8 CH - 8370 Sirnach Tel.: +41 (0)71 969 49 29 Fax: +41 (0)71 969 49 20 e-mail: sales@sts-ag.ch Internet: www.sts-ag.com	STS Sensoren Transmitter Systeme GmbH Poststrasse 7 D - 71063 Sindelfingen Tel.: +49 (0)7031 204 9410 Fax: +49 (0)7031 204 9420 e-mail: info@sts-ag.de Internet: www.sts-ag.com	STS Italia s.r.l. Via Gesù 5 I - 20090 Opera (MI) Tel.: +39 02 57607073/074 Fax: +39 02 57607110 e-mail: info@sts-italia.it Internet: www.sts-ag.com	STS France 844, Route de la Caille FR - 74350 Allonzier la Caille Tel.: +33 (0)4 50 08 48 15 Fax: +33 (0)4 50 67 02 43 e-mail: info@stsfrence.fr Internet: www.sts-ag.com	STS Great Britain Ltd. Coppice House Halesfield 7 GB - Telford TF7 4NA Tel.: +44 (0) 1952 581093 Fax: +44 (0) 1952 581046 e-mail: contact@sts-gb.co.uk Internet: www.sts-ag.com

represented by



PROCESS CARLSSON AB
MARKWARE FOR INDUSTRY

Besök/Godsadress:
 Vålmgänd 5
 187 53 TÄBY
 Telefon: +46 70-544 71 78
 E-mail: per@processarlsson.se
 www.processarlsson.se