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## **INDUSTRY PRODUCT – OVERVIEW**



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


Information/Legend		Pressure transmitter with integrated temperature measurement	
		ATM/T	ATM.1ST/T
			
Pressure range		0...50mbar -1...1000bar	0...25bar
Temperature measuring range		-40...150°C	-50...150°C
Pressure type		Gauge / Absolute / Sealed gauge	Gauge / Absolute / Sealed gauge
Accuracy		≤ ± 0.1 / 0.25 / 0.5% FS	≤ ± 0.1 % FS
Total Error (0...70°C compensated)		≤ ± 1% FS	≤ ± 0.3% FS
Response time		< 1 ms / 10...90% FS	< 1 ms / 10...90% FS
Operating temperature		-25...85°C	-40...125°C
Process temperature		-40...150°C	-40...150°C
Overpressure		min. 3 bar / 3x FS	min. 3 bar / 3x FS
Burst pressure		> 200 bar / > 850 bar / ≤ 1500 bar	> 200 bar / > 850 bar / ≤ 1500 bar
Output signal/interface/protocol	0...20 mA 4...20 mA 0.5...4.5 VDC 0...5 VDC 0...10 VDC Surge protection	x x x x x	x
Supply voltage	5...15 VDC 10...30 VDC 15...30 VDC	x	x
Housing material	Steel (1.4435/316L) Titanium Gr. 2 Hastelloy (Wetted parts)	x x	x
Connectors	DIN-43650 Mini DIN M12 (Lumberg RSF4) M16 (Binder 723) MIL C26482, 10-6	x x x x x	x x x x x
Cable	PUR PE FEP	x x x	x x x
Approvals	ATEX EAC IECEX FM/FMc (depending on model) DNV-GL ABS		
Type of protection	Gas II 1G Ex ia IIC T3 ... T6 Dust II 1D Ex iaD 20 IP6x T80°C ... T125°C Mining I M1 Ex ia I		



Information/Legend		Passive (mv) measuring cells and transmitters	
		TD	TM
			
Pressure range		0...50mbar -1...1000bar	0...50mbar -1...1000bar
Temperature measuring range		-	-
Pressure type		Gauge / Absolute / Sealed gauge	Gauge / Absolute / Sealed gauge
Accuracy		$\leq \pm 0.1 / 0.25 / 0.5\%$ FS	$\leq \pm 0.25 / 0.5\%$ FS
Total Error (0...70°C compensated)		-	$\leq \pm 1\%$ FS
Response time		< 0,1 ms / 10...90% FS	< 0,1 ms / 10...90% FS
Operating temperature		-40...125°C	-40...125°C
Process temperature		-40...150°C	-40...150°C
Overpressure		min. 3 bar / 3x FS	min. 3 bar / 3x FS
Burst pressure		> 200 bar / > 850 bar / $\leq 1500$ bar	> 200 bar / > 850 bar / $\leq 1500$ bar
Output signal/interface/protocol	mV 0...20 mA 4...20 mA 0.5...4.5 VDC 0...5 VDC 0...10 VDC Surge protection	x	x
Supply voltage	< 3V/1.5 mA 5...15 VDC 10...30 VDC 15...30 VDC	x	x
Housing material	Steel (1.4435/316L) Titanium Gr. 2 Hastelloy (Wetted parts)	x x x	x x x
Electrical connection	5 gold plated pins	x	
Connectors	DIN-43650 M12 (Lumberg RSF4) M16 (Binder 723) MIL C26482, 10-6		x x x
Cable	PUR PE FEP PVC		x x x
Approvals	ATEX EAC FM/FMc (depending on model)		x x
Type of protection	Gas II 1G Ex ia IIC T3 ... T6 Dust II 1D Ex iaD 20 IP6x T80°C ... T125°C Mining I M1 Ex ia I		



Information/Legend		Pressure transmitter with adjustable measuring span	
		PTM	PTM/RS485
			
		EX option available 	
Pressure range		0...100mbar 0...1000bar	0...100mbar 0...1000bar
Temperature measuring range		-	-25 ... 85°C
Pressure type		Gauge / Absolute / Sealed gauge	Gauge / Absolute / Sealed gauge
Accuracy		≤ ± 0.1 / 0.25% FS	≤ ± 0.1 / 0.25% FS
Total Error (0...70°C compensated)		≤ ± 0.15% FS	≤ ± 0.15% FS
Response time		< 1 ms / 10...90% FS	10 ms
Operating temperature		-25...85°C	-25...85°C
Process temperature		-40...150°C	-40...150°C
Overpressure		min. 3 bar / 3x FS	min. 3 bar / 3x FS
Burst pressure		> 200 bar / > 850 bar / ≤ 1500 bar	> 200 bar / > 850 bar / ≤ 1500 bar
Output signal/interface/protocol	4...20 mA RS 485 Modbus Surge protection	x  x	x  x
Supply voltage	10...30 VDC	x	x
Housing material	Steel (1.4435/316L) Titanium Gr. 2 Hastelloy (Wetted parts)	x  x	x  x
Connectors	DIN-43650 M12 (Lumberg RSF4) M16 (Binder 723) MIL C26482, 10-6	x x x x	  x x
Cable	PUR PE FEP PVC	x x x	x x x
Approvals	ATEX EAC IECEX FM/FMc (depending on model) DNV-GL ABS	x x   x x	     
Type of protection	Gas II 1G Ex ia IIC T3 ... T6 Dust II 1D Ex iaD 20 IP6x T80°C ... T125°C Mining I M1 Ex ia I	x  x	

## Digital pressure transmitter

DTM.OCS.S



0...200mbar

0...100bar

-40 ... 85°C

Gauge / Absolute / Sealed gauge

$\leq \pm 0.03 / 0.05 / 0.15\%$  FS

$\leq \pm 0.1\%$  FS

10 ms

-40...85°C

-40...85°C

min. 3 bar / 3x FS

> 200 bar

x

x

x

x

x

x

x

x

x

# RELIABLE PRESSURE MEASUREMENT TECHNOLOGY DEMANDS A STRONG CORE TECHNOLOGY

A carefully produced pressure sensor is the best prerequisite for accurate measurement results over the entire product life. Pressure transmitters using piezoresistive semiconductor technology are characterized by their high sensitivity and reliability, which is why pressures even in the mbar range can be recorded with great precision. Procedures such as the compensation of temperature-based errors ensure the highest of measurement accuracy. Our pressure transmitters are also highly robust in terms of overpressure.

## The strengths of our core technology at a glance:

### High precision, low total error

Temperature errors are already compensated during production. Each product is optimized for its respective application.

### Overpressure

Our standard pressure transmitters can typically tolerate three times the measurement range without suffering any damage. The overpressure can also be tailored according to customer requirements.

### Pressure hysteresis and non-repeatability of negligible value

Pressure hysteresis and non-repeatability are uncompensable measurement errors, but due to the high-quality piezoresistive technology of our products, these remain extremely low. The error caused by non-repeatability and hysteresis is typically 0.01% of the applied pressure.

### Excellent long-term stability

We use only high-quality measuring cells. To achieve outstanding long-term stability, these are thermally treated. This reduces measurement errors to a minimum and significantly reduces the measurement uncertainty.



Reliable core technology: Piezoresistive measuring cells



# PROCESS CONNECTION OVERVIEW

## A wide selection of materials for optimally matched solutions

A large selection of sealant and housing materials, including stainless steel, Hastelloy® and titanium, as well as various transmission fluids, ensures the life-time optimization of our solutions across many applications.



Pressure port	Materials				Nominal pressure [bar]			Sealant type			Version
	Stainless steel 316L	Titanium Gr. 2 <sup>1</sup>	Hastelloy C276 <sup>2</sup>	Super duplex 1.4501	≤25	>25 ... 1000	>690 ... 1380	O-ring	Welded <sup>3</sup>	Elastomer-free <sup>4</sup>	
G 1/2 M	x	x	x		x	x		x	x		flush mounted, frontal diaphragm Manometer DIN16288
	x				x	x		x	x		
G 1/4 M	x	x	x		x	x		x	x	x	
	x				x	x		x			Manometer DIN16288
G 1/4 F	x		x		x	x		x	x	x	
M10 x 1 M	x				x	x		x	x		
M10 x 1 F	x				x	x		x	x		
M12 x 1 M	x				x			x			
M12 x 1.5 M	x				x	x		x	x		
	x				x	x		x	x		Cutting ring
M14 x 1.25 M	x				x	x			x		
M14 x 1.5 M	x	x			x	x		x	x		
	x				x	x			x		Cutting ring
M14 x 1.5 F	x				x	x		x	x		
M20 x 1.5 M	x				x	x		x			
	x				x			x			Manometer DIN16288
1/2 NPT M	x				x	x		x	x	x	
1/4 NTP M	x	x			x	x		x	x	x	
1/4 NPT F	x		x	x	x	x	x	x	x	x	
1/8 NPT M	x				x			x			
1/8 NPT F	x				x				x		
7/16-20 UNF	x				x	x		x	x	x	
7/16-20 UNJF-3A	x	x			x	x		x	x	x	
9/16-18 UNF	x			x		x	x			x	AE F-250-C
Milk flange DN 25	x				x						DIN-11851
Milk flange DN 40	x				x						DIN-11851
Milk flange DN 50	x				x						DIN-11851
DIN flange DN 25	x				x						
DIN flange DN 40	x				x						
DIN flange DN 50	x				x						
Clamp flange 1"	x				x						
Clamp flange 1 1/2"	x				x						

<sup>1</sup> Titanium available up to ≤ 600 bar, max. overpressure 550 bar

<sup>2</sup> Hastalloy available up to ≤ 600 bar, max. overpressure 850 bar

<sup>3</sup> Version available up to 250 bar, max. overpressure 300 bar

<sup>4</sup> Elastomer free version available from 30 bar up to 690 bar, max. overpressure 850 bar



# STS SENSOR TECHNIK SIRNACH – YOUR PARTNER FOR INDUSTRIAL PRESSURE MEASUREMENT TECHNOLOGY

STS Sensor Technik Sirnach has been developing and producing complete solutions since 1987 for customer-specific applications and systems in the field of pressure measurement. Due to our close cooperation with customers and suppliers, STS Sensor Technik Sirnach is able to convert customer requirements into high-quality products at short notice.

STS Sensor Technik Sirnach places the highest demands upon the quality, precision, reliability and longevity of its sensors and component parts.

Subsidiaries in Germany, Italy, France, Great Britain and China, as well as our competent sales partners, guarantee the worldwide sales and service of the STS product portfolio.

## What STS stands for

- ✓ Individual, customer-specific products
- ✓ High quality products of extended longevity
- ✓ Accuracy and signal stability guaranteed by in-house measurement cell production
- ✓ 10–15 day delivery times for custom products

Whether as a supplier to the world's largest manufacturers of industrial machinery across various applications, or directly as your competent local partner, our decades of experience at STS will support you in choosing the right sensor.



MINING



MACHINE AND PLANT CONSTRUCTION



SHIPBUILDING & MARINE



OIL & SUBSEA



TEST SYSTEMS & PROTOTYPES



GAS



AVIATION & SPACE TRAVEL



MEDICINE & LIFE SCIENCE



AUTOMOTIVE



COMMERCIAL VEHICLES



RAIL VEHICLES





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