



SD-SPT-SP

*pressure transmitter
with stainless steel thin-film measuring cell*



SENSOR DATA

SD-SPT-SP

Pressure transmitter with stainless steel thin-film measuring cell

- **SEAL FREE**
- **EXTREMELY ROBUST**
- **LONG TERM STABILITY**
- **OVERLOAD-PROOF**



TECHNICAL FEATURES

- Vacuum and 600 mbar up to 600 bar
- Relative pressure, absolute pressure, sealed reference
- (0) 4... 20 mA, 0...(5)10 V, ratiometric and more
- ISO 4400, M12x1, cable, and many more
- Accuracy < 0.5% FS (limit point adjustment)
- Wetted parts made of stainless steel
- Response time < 1ms

DESCRIPTION

The piezoresistive MEMS thin-film measuring cell of the SPT industrial pressure transmitter is made of stainless steel and adjusted with the process connection material by welding. It is thus absolutely vacuum-tight. Leaks, caused by material fatigue or internal seals, are thus excluded in advance.

It has no disturbing pressure transmission fluid and no large pressurized areas. The connection to the connection pins takes place via golden plates and is perfectly stable even at low temperatures, shocks, or vibration. The signal processing of the measuring bridge via a mixed-signal ASIC. The SPT is an allrounder due to his large diversity of varieties.

APPLICATIONS

- **HYDRAULICS**
- **MECHANICAL ENGINEERING**
- **MEDICAL TECHNOLOGY**
- **MOBILE HYDRAULICS**
- **WATER TECHNOLOGY**
- **GAS TECHNOLOGY**



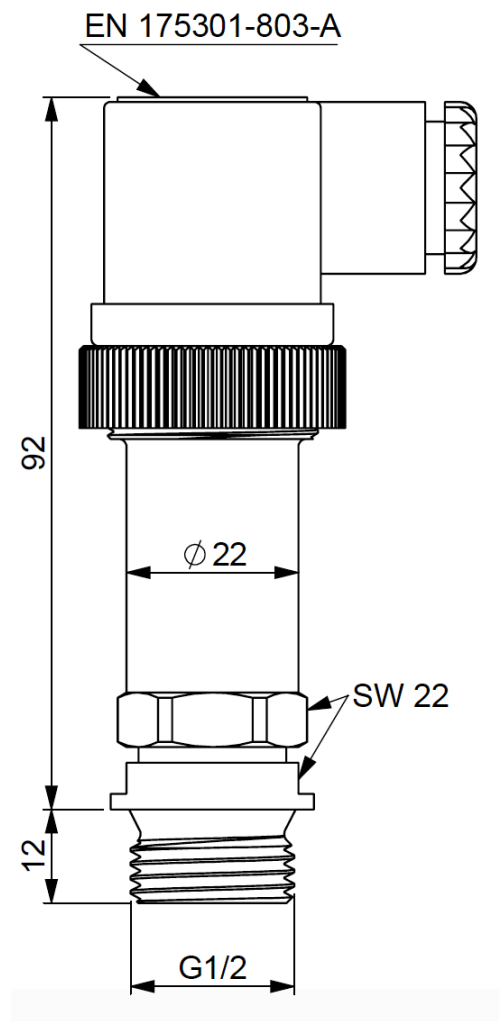
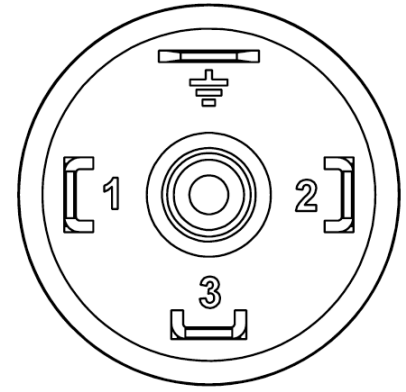
TECHNICAL SPECIFICATIONS

Parameter	Min	Type	Max	Unit	Remark
					1
Pressure range	0	-	25	bar	
Pressure typ		gauge			
Span		10		VDC	2
Output at FS		10	VDC	2	
Zero output		<0,03	VDC	2	
Total error at RT			0,5	%FS	3
Total error (from -10°C to +50°C)			1,5	%FS	4
Total error (from -40°C to +105°C)			2	%FS	4
Response time		1	2	ms	5
Supply voltage	14		32	VDC	6
Supply current		<10		mA	6
Recommended load resistor			>10	kΩ	
Isolation resistor	100			MΩ	7
Over pressure			50	bar	
Burst pressure	75			bar	
Media temperature	-50		125	°C	
Operating temperature	-40		105	°C	
Storage temperature	-40		125	°C	
Weight			ca. 60	g	
Mounting direction			no restriction		8

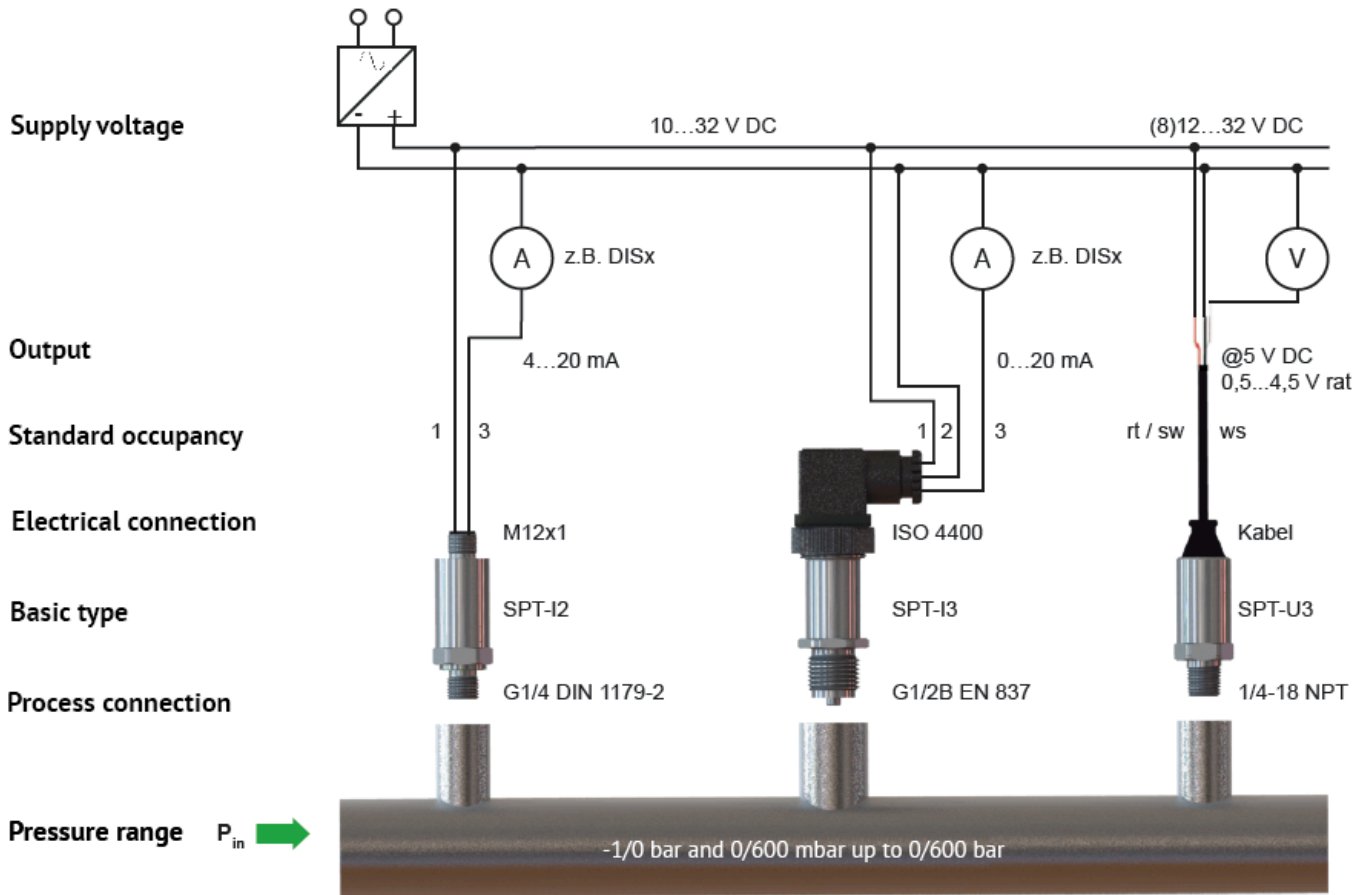
Remarks

1. All parameters guaranteed for specific conditions.
2. Output is calibrated at zero and full scale.
3. Total accuracy in BFSL includes non-linearity, hysteresis, offset and gain failures.
4. Total accuracy 3., repeatability and temperature effects (new parts, max. drift per year 0,2%FS).
5. Measured from initial value to output at 90%.
6. Reverse polarity protected
7. Measured between case and pins (VDC 50C for one minute)
8. Mounting force max. 25 NM.

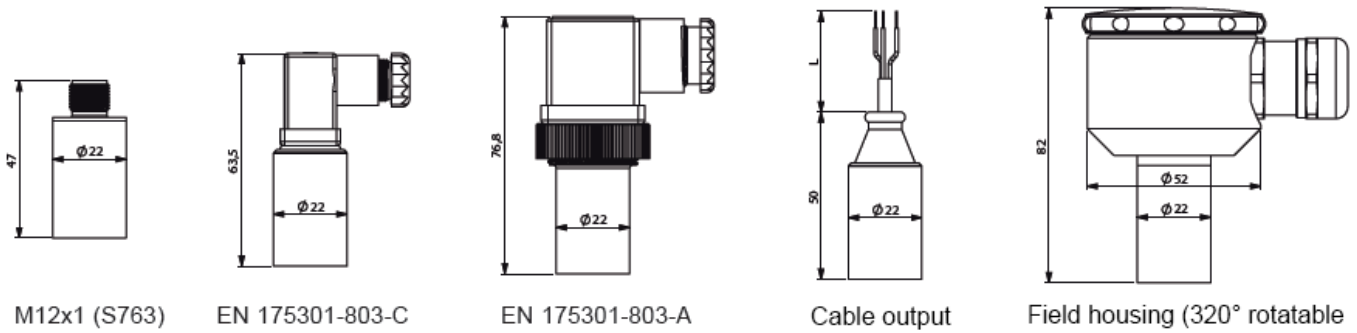
- Wetted component stainless steel, no O-ring, no silicon oil.
- Dead volume in the measuring cell approx. 100mm³. Control volume less than 1mm³.
- IP65.
- Piezoresistive principle, calibrated using mixed signal ASSP, non potentiometer, no laser trimming.
- Pressure port - G1/4" A Form E, DIN 1179-2 with thread adapter to G1/2" A Form A, DIN 3852-2.
- Electrical assignment: MVS/A, EN 175301-803-A. Pin1 = +VDC, Pin1 = -VDC, Pin3 = +Vout/Signal.



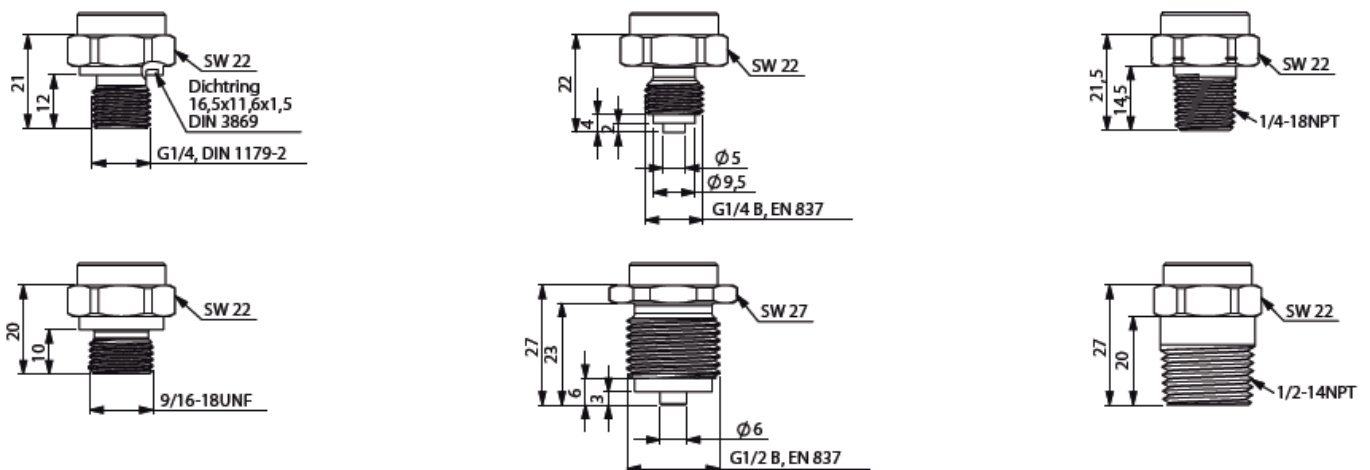
SYSTEM CONSTRUCTION



ELEKTRICAL CONNECTION



PROCESS CONNECTION



OPTIONS

In addition to the above parameters, a variety of specific wishes can be realized:

- Material of the wetted parts of the housing (E.g. 1.4404, Titan, Hasteloy and various coatings)
- Other process connections and electrical connections are available in large varieties
- Analog output signals will be adjusted on request.

Sprechen Sie uns darauf an!

ACCESSORIES FOR THE MEASURING CELL

LEDD – This plug-in display for plug ACC. to EN 175301-803-A is simply mounted between the plug on the transmitter and the cable box. It is powered out of the 4 ... 20 mA-Loop and requires no additional auxiliary voltage



Signal input	4 ... 20 mA
Measuring range	- 1999 to 9999, free adjustable
Display	4-digits 7 mm LED
Settings	Scaling, decimal point, damping
Housing	Plastic, IP 65
Options	1x switching point PNP

DIS4 is a 4,5 digit digital display and control unit for the control panel installation. It will be completely parameterised - delivered due to the pressure transmitter. The connected transmitter is operated via the internal power supply and evaluated.



Signal input	0 ... 5 V DC 0 ... 10 V DC 4 ... 20 mA
Measuring range	1999 to 9999, configured at the factory
Display	4,5-digits 7 mm LED
Installation dimensions	48 x 48 mm
Housing	Plastic, IP 60
Options	1 or 2 relays outputs

OTHER MEASURING DEVICES



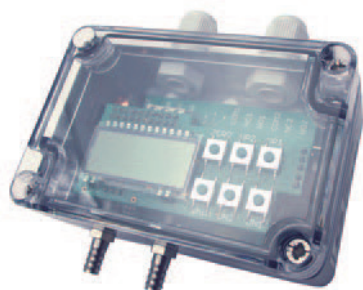
front-flush pressure transmitter



Level probes



Compact temperature transmitter



Differential pressure switch for low pressures



Differential pressure transmitter for low pressures