

High pressure transmitter TST-SMH

Measuring range 0 ... 4000 bar

Pressure connection with double seal cone



Applications

- Hydraulics
- Mechanical engineering
- Hydropower technology
- Test stand engineering
- Diesel engine technology

Description

- Measuring ranges > 0 ... 1000 bar up to 0 ... 4000 bar
- Ambient Temperature -40 ... +125 °C
- Suitable for aggressive liquid or gaseous media
- Compact and robust stainless steel housing
- High reliability
- With GL-approval, TST 16.0 (see page 56)

Standard pressure ranges					
Measuring range	P(bar)	1600	2000	2500	4000
Overload pressure	P(bar)	2400	2400	3600	4800
Bursting Pressure	P(bar)	3000	3000	4500	6000

Technical data	Type: TST-SMH	
Electrical parameters		
Output signal*	4 ... 20 mA (2- or 3-wire)	0 ... 10 V DC (3-wire)
Operating voltage U_B	10 ... 32 V DC	12 ... 32 V DC
Permitted max. load R_A	$R_A \leq (U_B - 9 V)/20 \text{ mA}$	
Recommended max. load resistor R_L	$R_L > 5 \text{ k}\Omega$	
Response time* (10 ... 90%)	< 1 ms	< 1 ms
Electric strength	350 V DC	350 V DC
Accuracy specifications		
	pressure ranges $\leq 2000 \text{ bar}$	pressure ranges > 2000 to 4000 bar
BFSL (Best Fit Straight Line)	$\leq \pm 0,15 \%$ of range	$\leq \pm 0,25 \%$ of range
Total error at RT	$\leq \pm 0,50 \%$ of range	$\leq \pm 1,00 \%$ of range
	including nonlinearity, hysteresis, zero point and full scale error (according to IEC 61298-2).	
	Optional $\leq \pm 0,25 \%$ of range or	$\leq \pm 0,50 \%$ of range available
Stability per year	$\leq \pm 0,10 \%$ of range	$\leq \pm 0,20 \%$ of range

* Other output signals (e. g. 0 ... 5 V_{DC}; 0,5 ... 4,5 V_{DC} ratiometric) and other response times upon request.

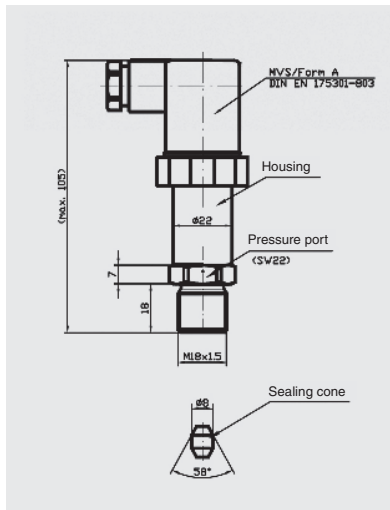
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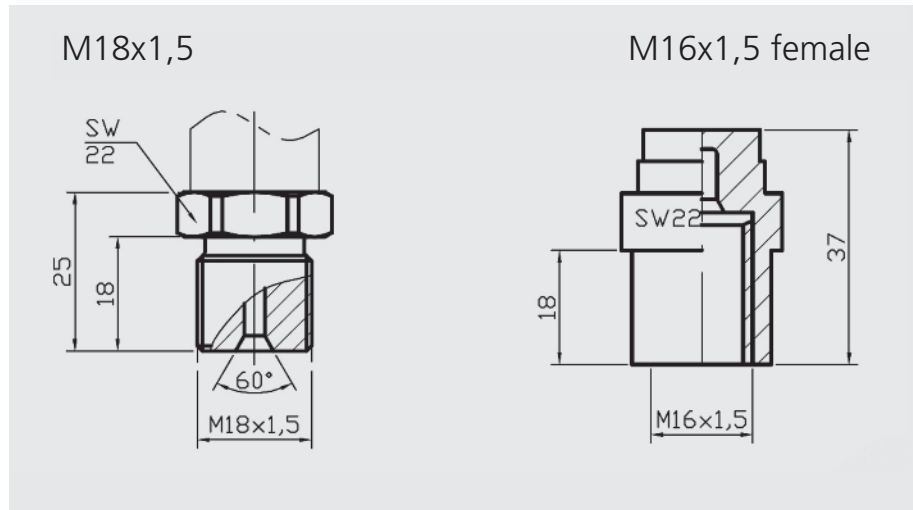
Technical data	Type: TST-SMH
Temperature ranges	
Media temperature	-40 ... +125 °C
Ambient temperature	-40 ... +105 °C
Storage temperature	-40 ... +105 °C
Compensated temperature range	-20 ... +85 °C
Temperature coefficient zero point	≤± 0,15 / 10K % of range
Temperature coefficient range	≤± 0,15 / 10K % of range
Total Error	At -40 °C - 2,00 % of range At +105 °C - 2,00 % of range
Mechanical parameters	
Sensor element	Stainless steel on media side
Material of parts with contact to measuring medium	Stainless steel (316L)
Housing	Stainless steel
Process connection	M18x1,5, M16x1,5 others on request
Gasket ring	Double seal cone
Electrical connection	Connector M12x1, MVS / A, MVS / C, others on request
Weight	120 ... 150 g according to layout
Shock resistance	1000 g according to IEC 68-2-32
Vibration resistance	20 g according to IEC 68-2-6 and IEC 68-2-36
CE conformity	EMC directive 2004 / 108 / EC
IP protection class	Corresponding to the used and connected mating connector

* Pressure connection is sealed by double seal cone. The screw connection must be tightened to the specified torque.

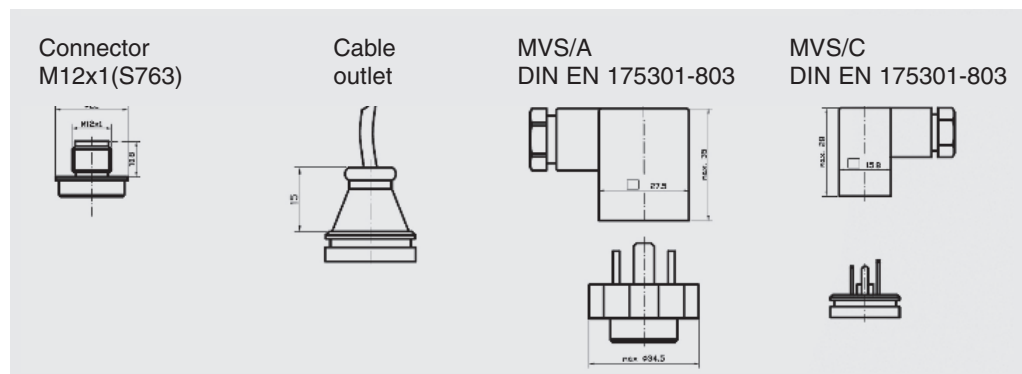
Dimensional drawing



Process connectors



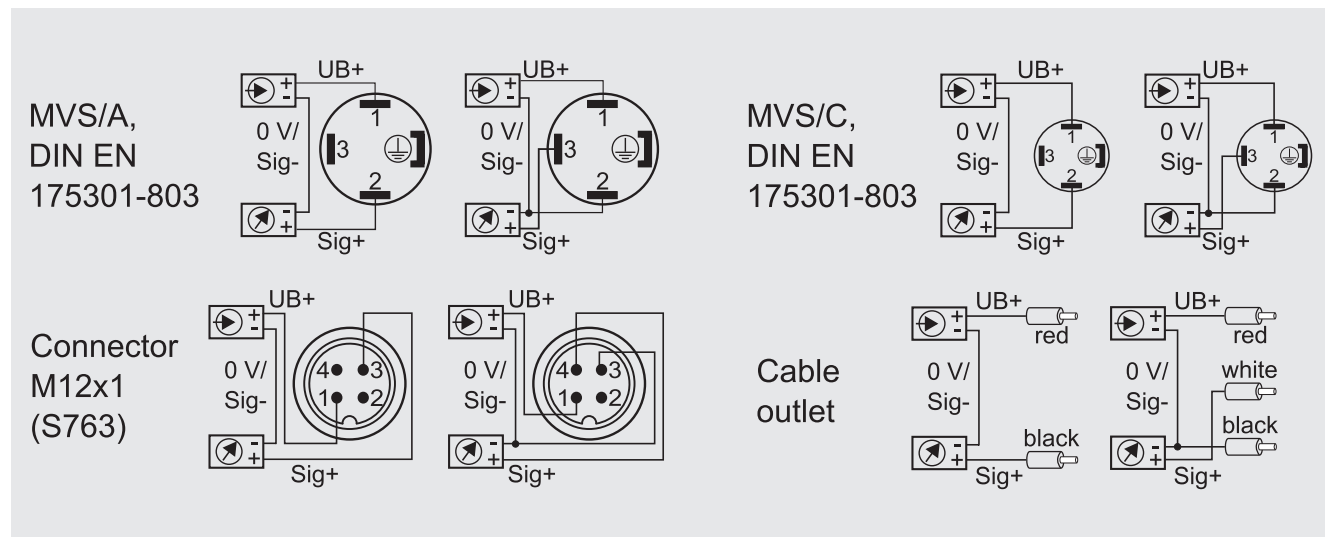
Connector variants



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PIN assignment



Assembled cable and connection accessories



Type	Length	Specification	Part No.:	
			straight	angled
M12x1 (S763) 4- pin	-	connector M12x1 for self-connection	1070039	1070038
	-	connector M12x1 self-connection, shielded	1070030	1070031
	2 m	cable: PUR	1070044	-
	5 m	cable: PUR, halogen-free	1070023	1070025
	5 m	cable: PUR, shielded, halogen-free	1070032	1070033
MVS / C, 3-pin +PE	3 m	cable: PUR, connector MVS / C	-	1070021

Special types upon request.