

Pressure transmitter TST 10.../20...

Measuring range -1 ... 1000 bar

Output signal 4 ... 20 mA (2- or 3-wire) or 0 ... 10 V DC (3-wire)



Applications

- General industrial applications
- Mechanical engineering
- Hydraulics and pneumatics
- Plant engineering and automation technology

Description

- Measuring ranges -1 ... 0 bar up to 0 ... 1000 bar
- Media temperature -40 ... +125 °C
- No internal transfer medium ("dry" measuring cell, completely welded)
- Protection class up to IP67 (IP69K upon request)
- Compact and robust stainless steel housing
- High reliability
- With GL-approval, TST 16.0 (see page 56)

Standard pressure ranges											
Measuring range	P(bar)	1,0	1,6	2,0	2,5	4,0	6,0	10,0	16,0	20	25
Overload pressure	P(bar)	6	6	6	10	10	20	20	40	40	100
Bursting Pressure	P(bar)	9	9	9	15	15	30	30	60	60	150
Measuring range	P(bar)	40	60	100	160	200	250	400	600	1000	
Overload pressure	P(bar)	100	200	200	400	400	750	750	840	1200	
Bursting Pressure	P(bar)	150	300	300	600	600	1000	1000	1050	1500	

Individual pressure ranges on request (e. g. -1 ... +2,5 bar)

Technical data		Type: TST 10.../20...	
Electrical parameters			
	TST 10...	TST 20...	
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%)	<1ms	<1ms	
Electric strength	350 VDC	350 VDC	
Accuracy specifications			
BFSL	$\leq \pm 0,15 \%$ of range		
Total error at RT	$\leq \pm 0,50 \%$ of range - including nonlinearity, hysteresis, zero point and full scale error (according to IEC 61298-2). Optional total error $\leq \pm 0,25 \%$ of range available		
Stability per year	$\leq \pm 0,10 \%$ of range		

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

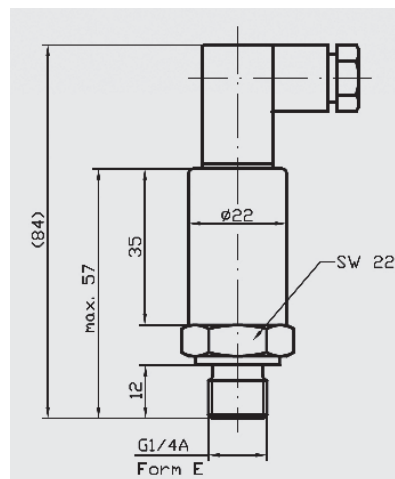
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Measuring range -1 ... 1000 bar

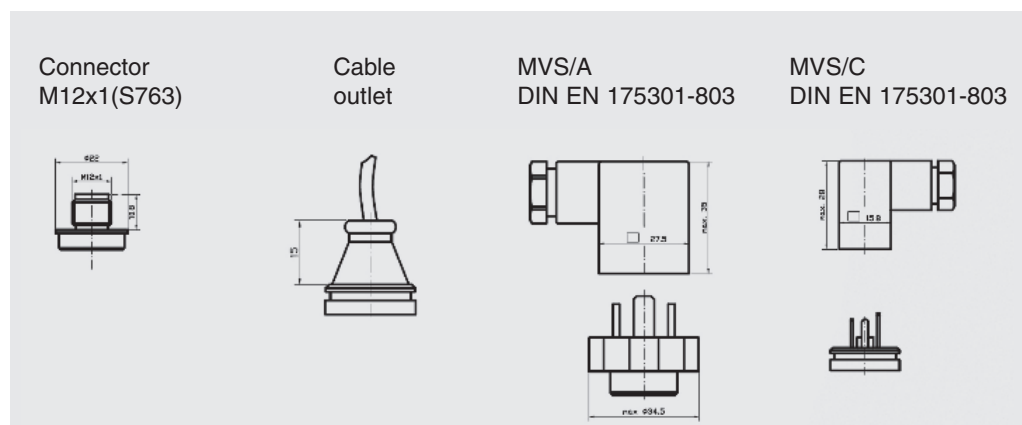
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Technical data	Type: TST 10... / 20...
Temperature ranges	
Media temperature	-40 ... +125 °C
Ambient temperature	-40 ... +105 °C
Storage temperature	-40 ... +105 °C
Compensated temperature range	-20 ... +85 °C
Temperature coefficient zero point	≤± 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	CrNiCuNb 17-4 PH / 1.4542
Housing	Stainless steel
Process connection	G 1/4" E, G 1/4" B, G 1/2" B, others on request
Gasket ring	FKM (Viton)
Electrical connection	Connector M12x1, MVS / A, MVS / C, others on request
Weight	80 ... 120 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

Dimensional drawing



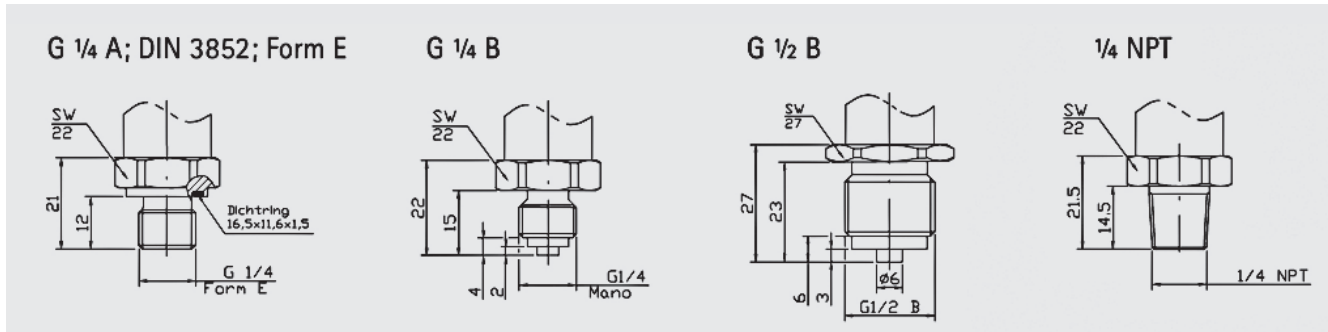
Connector variants



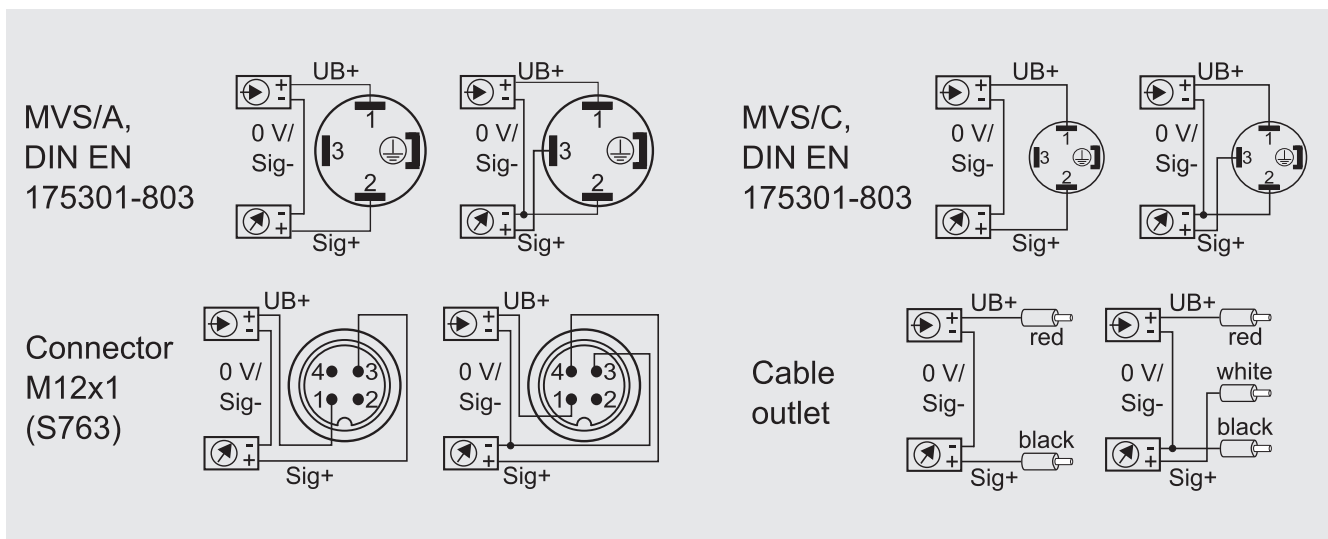
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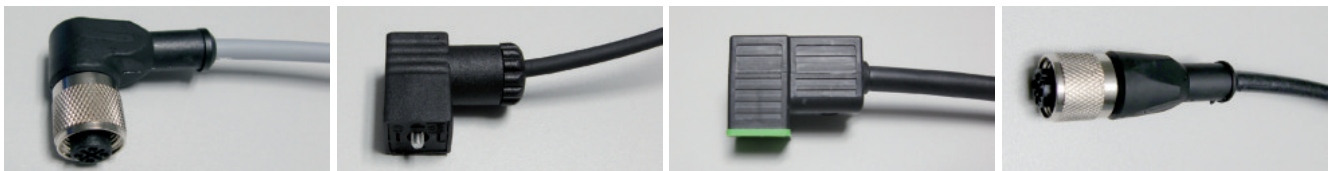
Process connectors



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.