

Pressure transmitter TST 16.0 (GL)

Approved for shipbuilding applications by Germanischer Lloyd
Certificate No. 61 220 – 13 HH



Applications

- Marine and offshore
- Mechanical engineering
- Hydraulics and pneumatics

Description

- Approved by Germanischer Lloyd GL directive Chapter 2, Edition 2012
- Output signal 4 ... 20 mA (2-wire)
- Measuring ranges 0 ... 2000 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

Available pressure ranges

The table of Standard pressure ranges of the Pressure transmitter TST 10.../ 20...series applies to measuring ranges up to a maximum pressure of 1.000 bar. (see page 50 to 52)

The table of Standard pressure ranges of the Pressure transmitter TST-SMH series applies to measuring ranges of 1.600 or 2.000 bar maximum pressure. (see page 53 to 55)

Connector variants, Process connectors, PIN assignment Assembled cable and connection accessories

The data and illustrations of the Pressure transmitter TST 10.../ 20...series apply to measuring ranges up to a maximum pressure of 1.000 bar. (see pages 50 to 52)

The data and illustrations of the Pressure transmitter TST-SMH series apply to measuring ranges up to a maximum pressure of 1.600 or 2.000 bar. (see page 53 to 55)

Technical data	Type: TST 16.0 (GL)
Electrical parameters	
Output signal	4 ... 20 mA (2-wire)
Operating voltage U_B	12 ... 32 V DC
Permitted max. load R_A	$R_A \leq (U_B - 9 V) / 20 \text{ mA}$
Response time (10 ... 90%)	= 1 ms
Electric strength	350 V DC
Accuracy specifications	
BFSL (Best Fit Straight Line)	$\leq \pm 0,15 \%$ of range
Total error at RT	$\leq \pm 0,50 \%$ FS – including nonlinearity, hysteresis, zero point and full scale error (according to IEC 61298-2).
Stability per year	$\leq \pm 0,10 \%$ of range

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Technical data	Type: TST 16.0 (GL)
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 1.4301 / 1.4542
Housing	Stainless steel 1.4301
Process connection	G 1/4" E, G 1/4" B, G 1/2" B, 1/4" NPT (up to 1.000 bar pressure) M18x1,5, M16x1,5 (1.600 / 2.000 bar pressure)
Gasket ring	FKM (Viton)
Electrical connection	Round connector S 763-4 (M12x1), MVS / A
Weight	80 ... 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
IP protection class	Corresponding to the used and connected mating connector
CE conformity	
Conducted disturbances acc.to CISPR 16	< 20 dB µV
Radiated disturbances acc. to CISPR 16	< 38 dB µV / m
Immunity approved acc. to.	EN 61000-4-2 + A1 + A2, EN 61000-4-3 + A1, EN 61000-4-4, EN 61000-4-6, German Lloyd VI-Part 7 Ch. 2:2012

Dimensional drawing

up to 1.000 bar pressure

1.600 / 2.000 bar pressure

