

Pressure Transmitter DIGPTMHD

with piezoresistive measuring cell

Pressure ranges 0 – 160 bar to 0 – 1000 bar

T09-000-054

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Applications

High pressure precision transmitters DIGPTMHD, designed for MSR applications, are used to measure and monitor liquid as well as gaseous media in a pressure range up to 1000 bar.

Especially for calibration purposes, the DIGPTMHD005 is available as highly accurate temperature-compensated reference.

	Accuracy class	Rated temperature range
DIGPTMHD	0.10 %	-25 °C to +80 °C (-13 °F to +176 °F)
DIGPTMHD005	0.05 %	+10 °C to +40 °C (+50 °F to +104 °F)

Reference device

Hydraulics

High pressure applications

Mobile field applications

Research

Gas supply

Construction

- Robust stainless steel pressure measuring cell with diaphragm made of corrosion-free stainless steel
- Wetted sealing ring FKM (Viton)
- Case made of stainless steel with approved EMC shield and high IP degree of protection
- CMOS RISC microprocessor: active error compensation in the entire temperature measuring range
- Besides the pressure signal, the measuring point temperature of the internal PT1000 is additionally available
- ALL-IN-ONE: pressure, temperature, analogue output 2-wire 4..20 mA with NAMUR-alarm, RS-485 interface, 2-channel precision pressure switch, spin-down scaling of the measuring range, possibility of offset correction, software low-pass, software package USSCOM

Standard Version

Process Connection

High pressure connection 9/16-18 UNF female thread for ¼ " high pressure tubes

Measuring Cell / Sensor

Media isolated piezoresistive pressure measuring cell 316L placed inside

Case

Stainless steel 1.4571 (316 Ti), welded to process connection

Overpressure [bar]	Overload limit [bar]
0 – 160	250
0 – 250	400
0 – 400	600
0 – 600	1000
0 – 1000	1100

Pressure Range / Overload

Electrical Data (Wiring see back of page)

Output signal analogue: 2-wire 4..20 mA

Digital interface: RS 485

2 short-circuit proof switching outputs (PNP-switch with NC-function) for ohmic, capacitive and inductive load each 0.2 A, short-circuit proof, voltage drop (at $I_{max} = 0.2 A$) $\leq 2 V$;
Switching function: breaking contact, making contact, window or inverted window adjustable via optional software USSCOM



Electrical Connection

Miniature angular plug connector M16x0.75;
6-pin massively metallic shielded

Load Impedance

$RL < (U_B - 8 V) / 0.023 A$; max. 680 Ohm at 24 V DC

Power Supply

+12 to +24 V DC ($\pm 25 \%$), reverse polarity protected

Measuring Accuracy (including non-linearity, hysteresis, and non-repeatability)

DIGPTMHD: $\leq 0.10 \%$ in rated temperature range

DIGPTMHD005: $\leq 0.05 \%$ in rated temperature range

Temperature Ranges

Transport and storage temperature: -40 °C to +85 °C
(-40 °F to +185 °F)

Reference Temperature

+20° C (+68 °F)

Long-term Stability

$\leq 0.05 \%$ FS/a (at reference conditions)

Position of Installation / Position of Connection

Any

Protection Type (EN 60529/ IEC 529)

IP 67

CE- Conformity

IEC 61 326-1: 2006

EN 61 326-2-3: 2006

EMC- Stability

RL2004/108/EG/2004/108/EC IEC 61000-4-5: $\pm 1 kV$

IEC 61000-4-2: 8 kV IEC 61000-4-6: 10 V

IEC 61000-4-3: 10 V/m NE 21: 2007

IEC 61000-4-4: $\pm 4 kV$

GL VI part 7,
chapter 2: 2003

Options

- Other process connections upon request
- Other materials for wetted parts upon request
- Other pressure ranges upon request
- Version with increased precision upon request
- Other rated temperature ranges upon request
- Free cable head with cable gland (IP 68)
- Switching output adjusted ex works
- Software USSCOM for visualisation of the measuring data and administration of the transmitter
- RS-485 / USB-converter with integrated voltage converter 5 V / 12 V; 0.15 A



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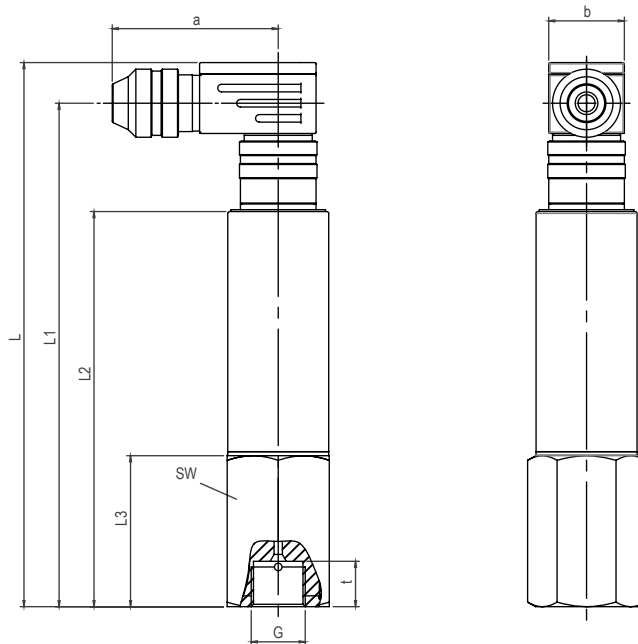
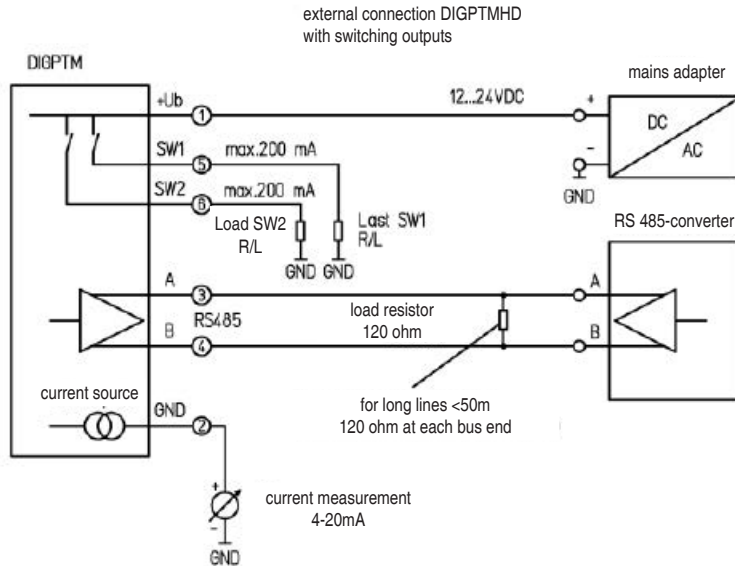
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Dimensional Data and Weights, Wiring Diagram
Standard Version



Dimensional Data (mm / inches) and Weights (kg / lb)

	a	b	G	L	L1	L2	L3	SW	t	approx. weight
DIGPTMHD	46	20	9/16-18 UNF	145	135	105	40	27	12	0,35
DIGPTMHD005	1.81	.79	female	5.71	5.31	4.13	1.57	1.06	.47	.77

