

LMK 458H

Probe with HART®-communication for Marine and Offshore

Ceramic Sensor

accuracy according to IEC 60770:
0.1 % FSO



Nominal pressure

from 0 ... 60 cmH₂O up to 0 ... 200 mH₂O

Output signals

2-wire: 4 ... 20 mA
others on request

Special characteristics

- ▶ shipping approvals acc. to:
Lloyd's Register (LR), Det Norske
Veritas ▪ Germanischer Lloyd (DNV•GL)
China Classification Society (CCS),
American Bureau of Shipping (ABS)
- ▶ diameter 39.5 mm
- ▶ HART® communication (setting of
offset, span and damping)
- ▶ high overpressure resistance
- ▶ high long-term stability



Optional versions

- ▶ IS-version zone 0
- ▶ diaphragm Al₂O₃ 99.9 %
- ▶ different housing materials
(stainless steel, CuNiFe)
- ▶ screw-in and flange version
- ▶ accessories e. g. assembling and
probe flange, mounting clamp

The hydrostatic probe LMK 458H has been developed for measuring level in service and storage tanks and is as a consequence certified for shipbuilding and offshore applications.

A permissible operating temperature of up to 85°C and the possibility to use the device in intrinsic safe areas enable to measure the pressure of various fluids under extreme conditions. The basis for the LMK 458H is a capacitive ceramic sensor element, which offers a high overload resistance and medium compatibility.

Preferred areas of use are

-  Water
Drinking water abstraction
Desalinization plant
-  Shipbuilding / Offshore
Ballast tanks
Draught monitoring
Level measurement in ballast and
storage tanks



LMK 458H

Hydrostatic Probe

Technical Data

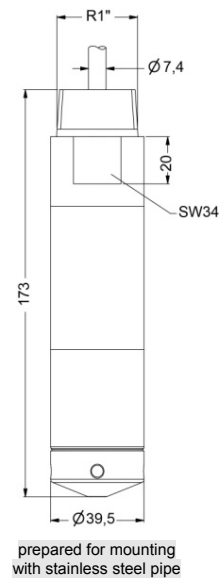
Explosion protection	
Approval DX15A-LMK 458H	IBExU 10 ATEX 1186 X zone 0 ⁵ : II 1G Ex ia IIB T4 Ga zone 20: II 1D Ex ia IIIC T85 °C Da
Safety technical maximum values	$U_i = 28\text{ V}$, $I_i = 93\text{ mA}$, $P_i = 660\text{ mW}$, $C_i = 94,6\text{ nF}$; $L_i = 0\text{ }\mu\text{H}$; the supply connections have an inner capacity of max. 110 nF opposite the enclosure
Permissible temperatures for environment	in zone 0: $-20 \dots 60\text{ }^\circ\text{C}$ with p_{atm} 0.8 bar up to 1.1 bar zone 1 and higher: $-25 \dots 70\text{ }^\circ\text{C}$
Connecting cables (by factory)	cable capacity: signal line/shield as well as signal line/signal line: 160 pF/m cable inductance: signal line/shield as well as signal line/signal line: 1 $\mu\text{H}/\text{m}$

⁵ for optional stainless steel pipe the following designation is valid: "II 1G Ex ia IIC T4" (zone 0)

Wiring diagrams	Pin configuration	
2-wire-system (current) HART® 	Electrical connection	cable colours (IEC 60757)
	Supply $V_S +$ Supply $V_S -$	wh (white) bn (brown)
	Shield	gnye (green-yellow)

Dimensions (in mm)

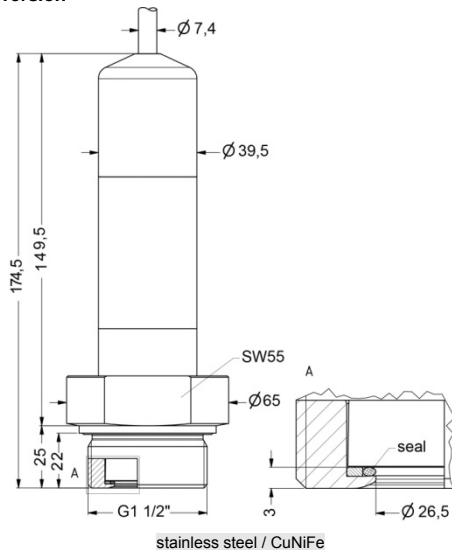
probe version



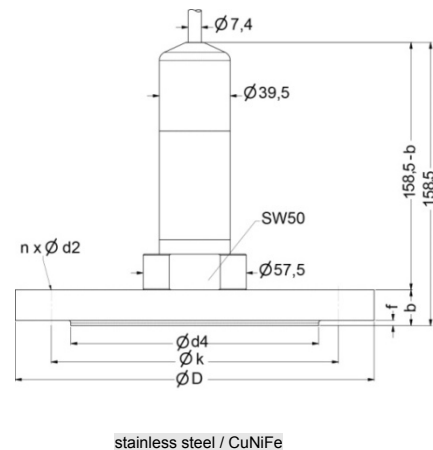
HART® is a registered trade mark of HART Communication Foundation;
Windows® is a registered trade mark of Microsoft Corporation

Dimensions (in mm)

screw-in version



flange version



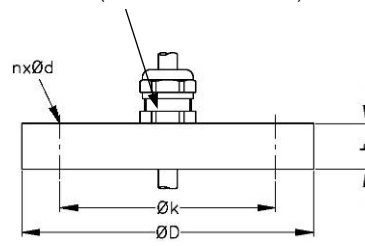
LMK 458H

Hydrostatic Probe

Accessories

Transmitter flange for flange version		
Technical data		
Suitable for	LMK 382, LMK 382H, LMK 458, LMK 458H	
Flange material	stainless steel 1.4404 (316L)	
Hole pattern	according to DIN 2507	
Version	Size (in mm)	Weight
DN25 / PN40	D = 115, k = 85, d4 = 68, b = 18, f = 2, n = 4, d2 = 14	1.2 kg
DN50 / PN40	D = 165, k = 125, d4 = 102, b = 20, f = 3, n = 4, d2 = 18	2.6 kg
DN80 / PN16	D = 200, k = 160, d4 = 138, b = 20, f = 3, n = 8, d2 = 18	4.1 kg
Ordering type		Ordering code
Transmitter flange DN25 / PN40		ZSF2540
Transmitter flange DN50 / PN40		ZSF5040
Transmitter flange DN80 / PN16		ZSF8016
Mounting flange with cable gland		
Technical data		
Suitable for	all probes	
Flange material	stainless steel 1.4404 (316L)	
Material of cable gland	standard: brass, nickel plated on request: stainless steel 1.4305; plastic	
Seal insert	material: TPE (ingress protection IP 68)	
Hole pattern	according to DIN 2507	
Version	Size (in mm)	Weight
DN25 / PN40	D = 115, k = 85, b = 18, n = 4, d = 14	1.4 kg
DN50 / PN40	D = 165, k = 125, b = 20, n = 4, d = 18	3.2 kg
DN80 / PN16	D = 200, k = 160, b = 20, n = 8, d = 18	4.8 kg
Ordering type		Ordering code
DN25 / PN40 with cable gland brass, nickel plated		ZMF2540
DN50 / PN40 with cable gland brass, nickel plated		ZMF5040
DN80 / PN16 with cable gland brass, nickel plated		ZMF8016

cable gland M16x1.5 with seal insert (for cable-Ø 4 ... 11 mm)



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