

# LMK 458



## Probe For Marine And Offshore

Ceramic Sensor

accuracy according to IEC 60770:  
 standard: 0.25 % FSO  
 option: 0.1 % FSO

### Nominal pressure

from 0 ... 40 cmH<sub>2</sub>O up to 0 ... 200 mH<sub>2</sub>O

### Output signals

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

### Special characteristics

- ▶ diameter 39.5 mm
- ▶ LR-certificate (Lloyd's Register)
- ▶ GL-certificate (Germanischer Lloyd)
- ▶ DNV-certificate (Det Norske Veritas)
- ▶ CCS-certificate (China Classification Society)
- ▶ high overpressure resistance
- ▶ high long-term stability



### Optional versions

- ▶ diaphragm Al<sub>2</sub>O<sub>3</sub> 99.9 %
- ▶ different housing materials (stainless steel, CuNiFe)
- ▶ IS-version zone 0
- ▶ screw-in and flange version
- ▶ accessories e.g. assembling and probe flange, mounting clamp

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

A permissible operating temperature of up to 125°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 458 is a capacitive ceramic sensor element designed by BD|SENSORS, which offers a high overload resistance and medium compatibility.

### Preferred areas of use are

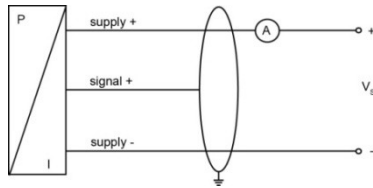
-  Water  
 drinking water abstraction  
 desalinization plant
- Shipbuilding / Offshore  
 ballast tanks  
 monitoring of a ship's position and draught  
 level measurement in ballast and storage tanks



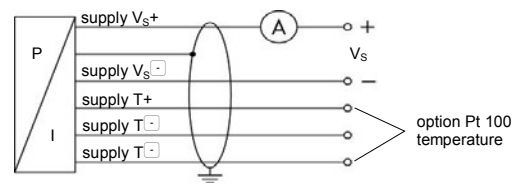


### Wiring diagrams

2-wire-system (current)



2-wire-system (current) with Pt 100

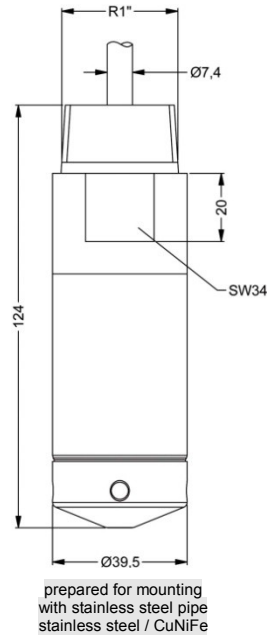
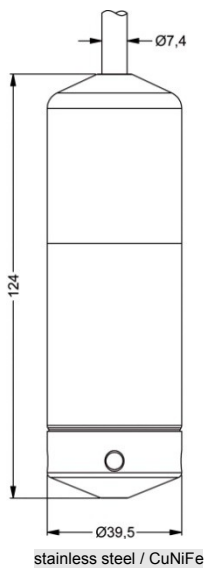


### Pin configuration

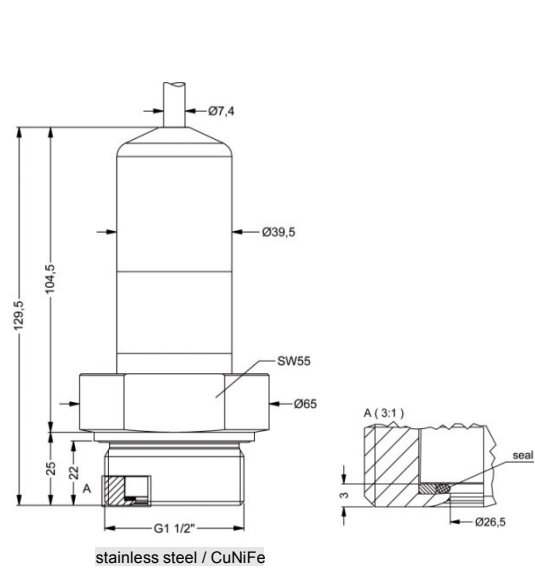
Electrical connection	cable colours (DIN 47100)
Supply $V_S+$	wh (white)
Supply $V_S-$	bn (brown)
Option Pt 100 temperature element:	
Supply T+ (with Pt 100)	ye (yellow)
Supply T- (with Pt 100)	gy (grey)
Supply T- (with Pt 100)	pk (pink)
Shield	gn/ye (green / yellow)

### Dimensions (in mm)

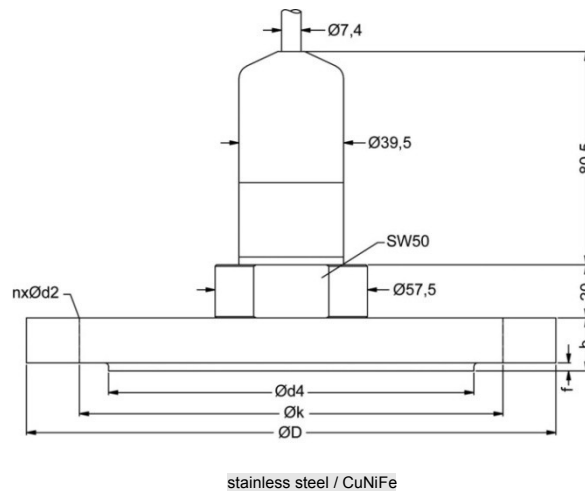
probe versions



screw-in version



flange version



Probe flange for flange version	
Technical Data	
Suitable for	LMK 382, LMK 382H, LMK 458
Flange material	stainless steel 1.4404 (316L)
Hole pattern	according to DIN 2507
Version	Size (in mm)
DN25 / PN40	D = 115, k = 85, d4 = 68, b = 18, f = 2, n = 4, d2 = 14
DN50 / PN40	D = 165, k = 125, d4 = 102, b = 20, f = 3, n = 4, d2 = 18
DN80 / PN16	D = 200, k = 160, d4 = 138, b = 20, f = 3, n = 8, d2 = 18
Ordering type	
Probe flange DN25 / PN40	ZSF2540
Probe flange DN50 / PN40	ZSF5040
Probe flange DN80 / PN16	ZSF8016

Assembling 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 (303); plastic
Seal insert	material: TPE (ingress protection IP 68)
Hole pattern	according to DIN 2507
Version	Size (in mm)
DN25 / PN40	D = 115, k = 85, b = 18, n = 4, d = 14
DN50 / PN40	D = 165, k = 125, b = 20, n = 4, d = 18
DN80 / PN16	D = 200, k = 160, b = 20, n = 8, d = 18
Ordering type	
Assembling Flange DN25 / PN40	ZMF2540
Assembling Flange DN50 / PN40	ZMF5040
Assembling Flange DN80 / PN16	ZMF8016

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

