

# STAINLESS STEEL PROBE

## for water and clean or waste fluids



Nominal pressures 0...1 mH<sub>2</sub>O up to 0...250 mH<sub>2</sub>O

Option: Ex-version

### Applications

Water / filtrated sewage

drinking water system  
ground water level measurement  
rain spillway basin, pump and booster stations  
level measurement in container  
water treatment plants, water recycling

Fuel / oil

fuel storage, tank farm



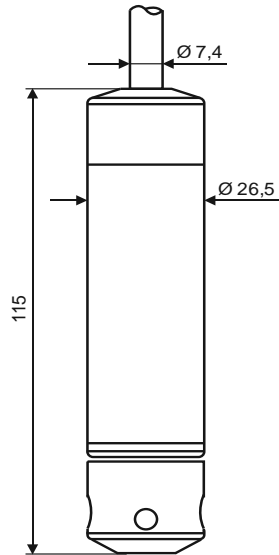
Type	3231	Options
Nominal pressure	0...1 mH <sub>2</sub> O up to 0...250 mH <sub>2</sub> O	
Output signal	4 ... 20mA (2-wire)      0...20mA / 0...10V (3-wire)	Ex-version 4...20 mA
Power supply	8 ... 32 V <sub>DC</sub> (2-wire)      14 ... 30 V <sub>DC</sub> (3-wire)	Ex-version 10...28 V <sub>DC</sub>
Response time	2-wire ≤10 ms      3-wire ≤3 ms	
Accuracy	Nominal pressure < 0,4 bar: ≤± 0,5% FSO Nominal pressure ≥ 0,4 bar: ≤± 0,35% FSO	≥ 0,4 bar: ≤± 0,25% FSO or all nominal pressure: ≤± 0,1% FSO
Long term stability	≤± 0,1% FSO / year at reference conditions	
Permiss. load 2-wire	Current: $R_{max}=[(U_B-U_{bmin})/0,02A]\Omega$	
Permiss. load 3-wire	Current: $R_{max}=500 \Omega$ , Voltage: $R_{min}=10 \text{ k}\Omega$	
Influence effects	Supply: 0,05% FSO / 10 V, load: 0,05% FSO / K $\Omega$	
Temperatures	Media: -10...70°C ; Storage -25...70°C	
Electrical protection	permanent short-circuit protection, reverse polarity protection, emission and immunity acc. to EN 61326	add. external overvoltage protection unit in terminal box
Nom. pressure PN/ Tolerance band/ in comp. range	< 0,40 bar / ≤± 1 % FSO / 0...70 °C ≥ 0,40 bar / ≤± 0,75 % FSO / 0...70°C	
Materials	Case: stainless steel 1.4404 Diaphragm: stainless steel 1.4435 Seals: FKM, protection cap: POM	Seals: others on request
Electrical connection	Cable with sheath: material: PVC (-5...70°C) grey PUR (-10...70°C) black FEP (-10...70°C) black; do not use if effects due to highly charging processes	
Weight	approx. 200 g without cable	
Protection	IP 68	
Special versions on for 4...20mA / 2-wire	SIL 2-application acc. to IEC 61508 / IEC 61511 EX-version acc. to ATEX Directive 2014/34/EU	
Optional	Mounting flange with cable gland, terminal clamp, display program (LED / LC)	

## Input pressure range

Nominal pressure gauge	bar	0,1	0,16	0,25	0,4	0,6	1	1,6	2,5	4	6	10	16	25
Level	mH <sub>2</sub> O	1	1,6	2,5	4	6	10	16	25	40	60	100	160	250
Overpressure	bar	0,5	1	1	2	5	5	10	10	20	40	40	80	80
Burst pressure $\geq$	bar	1,5	1,5	1,5	3	7,5	7,5	15	15	25	50	50	120	120

## Dimensional drawing

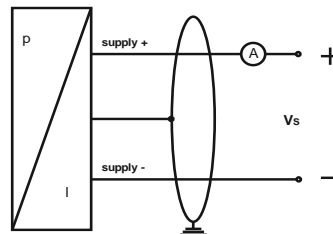
Dimensions in mm



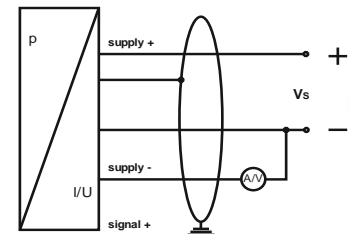
Total length of devices with accuracy 0,1%  
FSO increases by 35 mm!

## Wiring diagrams

2-wire-system (current)



3-wire-system (voltage)



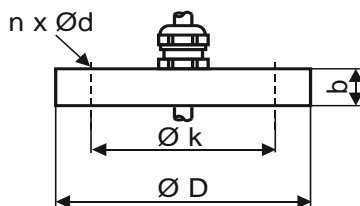
### Electrical connection

Supply +  
Supply -  
Signal + (only for 3-wire)  
Shield

### Cable colours (IEC 60757)

wh (white)  
bn (brown)  
gn (green)  
gnye (green-yellow)

## Mounting flange with cable gland M16x1,5 with seal insert (for cable Ø4...11 mm)

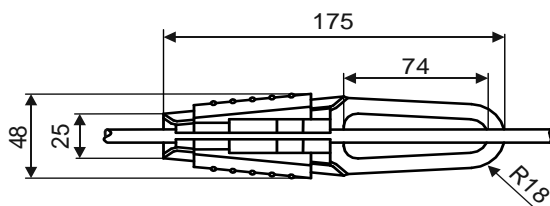


Dimensions in mm

Version	D	k	b	n	d	Weight
DN25/PN40	115	85	18	4	14	1,4 kg
DN50/PN40	165	125	20	4	18	3,2 kg
DN80/PN16	200	160	20	8	18	4,8 kg

Flange material: Stainless steel 1.4404  
Mat. of cable gland: Brass, nickel plated (opt. st. steel, plastic)  
Seal insert: TPE (IP68)  
Hole pattern: acc. to DIN 2507

## Terminal clamp for cable Ø5,5...10,5 mm; steel zinc plated; option: 1.4301



## Display programm

Process display with LED display (with / without contacts, analogue output, bargraph and Ex-approval)  
Multichannel process display