

Immersion probe for continuous fill level measuring **NIVOSENS**

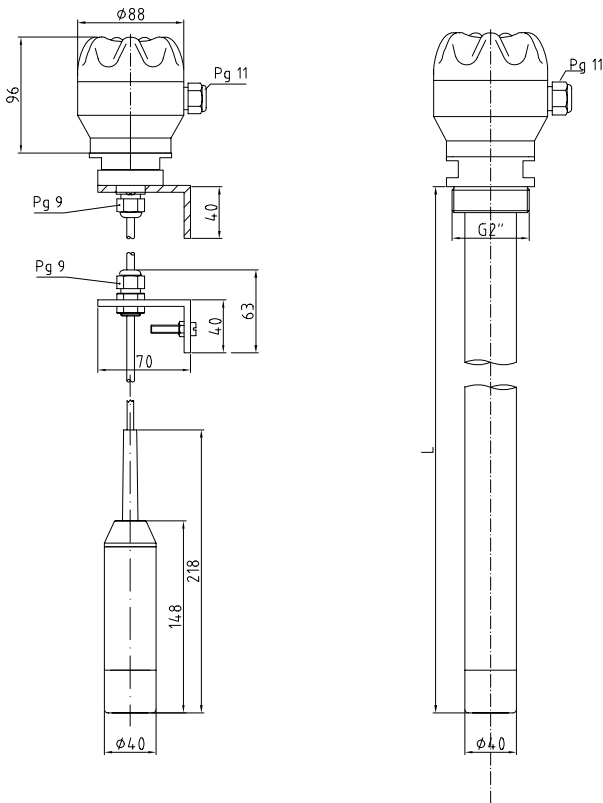
4 ... 20 mA -output-signal



Safety Precautions

- The device may only be connected to the supply voltage specified in the technical data!
- Installation, initial start-up and maintenance may only be performed by trained personnel!

Dimensions:



Technical Data

Measuring ranges:

1 000 mm WG
2 500 mm WG
4 000 mm WG
10 000 mm WG

Turndown 1:5

max. length of tube type: 1000 mm

Outputsignal

4...20 mA, 2-wire

Immersion probe:

IP68 (10m max.) acc. EN 60 529

Cable type:

TPE-special cable, max. length =15 m

Power supply:

12...28V DC;

max 5% residual ripple

Ambient temperature:

-20...+60°C

Liquid temperature:

0...+60°C

Terminal housing:

PBT ; IP 65 acc. EN 60 529

Signal cable:

Min. cross section= 0,5 mm², shielded,
observe max. load acc. diagram

Measuring cell:

Keramik-diaphragm, capacitive,
temperaturcompensated

Accuracy:

<1 % off measuring range

Sealing of measuring cell:

EPDM

Application:

for pressureless tanks and shafts

CE Mark

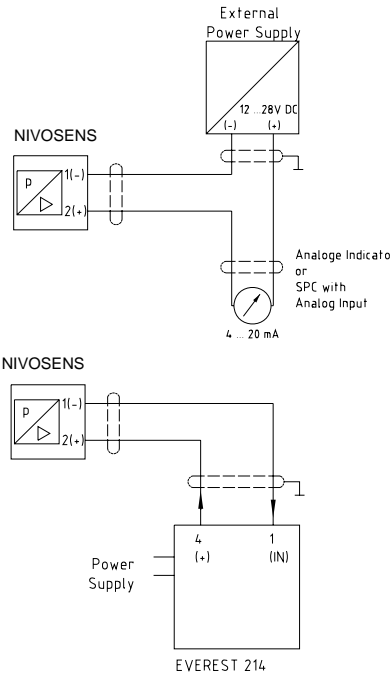
Acc. Low Voltage Guideline (73/23/EWG) and EMC Guideline (89/336/EWG)



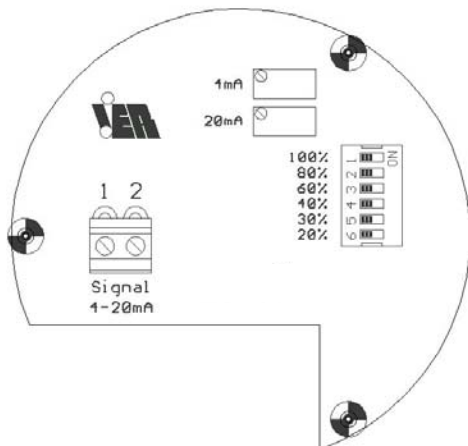
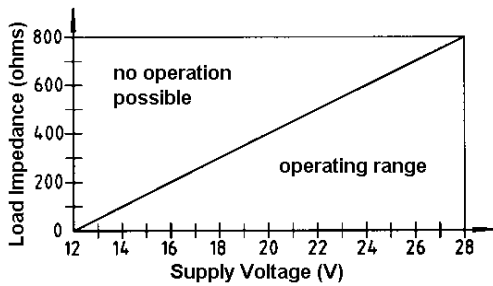
IER Meß- und Regeltechnik GmbH
Innstrasse 2
68199 Mannheim

Tel.+49 (0)621 84224-0 • Fax:+49 (0)621 84224-90
e-Mail: info@IER.de • Internet: www.IER.de

Electrical Connection



Load as Related to Supply Voltage



Electronic-pcb in the terminal housing

Initial Start-Up

All level transmitters are preset at the factory to values acc. customer applications or respectively to the measuring cell nominal value.

(DIP switch S1=ON)

- Zero point (0% fill level = 4 mA)
- Max. value (100% fill level = 20 mA)

The zero point and the max. value must always be examined during initial start-up and readjusted to the desired measuring range if necessary.

It is advantageous to adjust the transmitter with the original liquid.

Procedure

1. Electrical connection acc. connection diagram

2. Preset of the measuring range:

100 % - fill level range (m WG) :		
measuring cell Type 1 (1000 mm WG)	measuring cell Type 2 (2500 mm WG)	DIP switch setting
0,20 – 0,30	0,4 – 0,7 m	DIP 6 = ON
0,20 – 0,45	0,5 – 1,1 m	DIP 5 = ON
0,25 – 0,55	0,7 – 1,4 m	DIP 4 = ON
0,35 – 0,80	0,8 – 2,0 m	DIP 3 = ON
0,55 – 1,0	1,4 – 2,5 m	DIP 2 = ON
0,65 – 1,0	1,6 – 2,5 m	DIP 1 = ON

measuring cell Type 4 (4000 mm WG)	measuring cell Type 10 (10000 mm WG)	DIP switch setting
0,7 – 1,2	2,0 – 3,0	DIP 6 = ON
0,8 – 1,8	2,0 – 4,5	DIP 5 = ON
1,2 – 2,2	2,5 – 5,5	DIP 4 = ON
1,5 – 3,2	3,5 – 8,0	DIP 3 = ON
2,0 – 4,0	5,5 – 10	DIP 2 = ON
2,4 – 4,0	6,5 – 10	DIP 1 = ON

Note:

- always switch only one of the DIP switches to ON-position

3. Zero Point

- Empty the container or remove the MEMPRO
- Adjust measuring current to 4mA with the "4mA" trimming potentiometer

4. 100%-Point

- Fill container with the original liquid to desired max. level
- Adjust measuring current to 20mA with the "20mA" trimming potentiometer

Sensor type (1,2, 4 or 10)
see Label
for example:

NIVOSENS	H	1	2	S	X	L = 1800 m
----------	---	---	---	---	---	------------

Note:

If the container is refilled with liquids which have another density the transmitter must be readjusted!