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PHÖNIX Messtechnik GmbH

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VAIHINGER NIVEAU TECHNIK

Float Level Meter MAGNODUL®

Magnetostrictive Level meter digital with high resolution measuring of liquid level, interface with a magnetic float direct insertion into vessel
2-wire circuit 4-20 mA
digital interface HART as standard, display optional

Product group **746**

Type **22HX**

Sheet: 1/1 Revision: 14

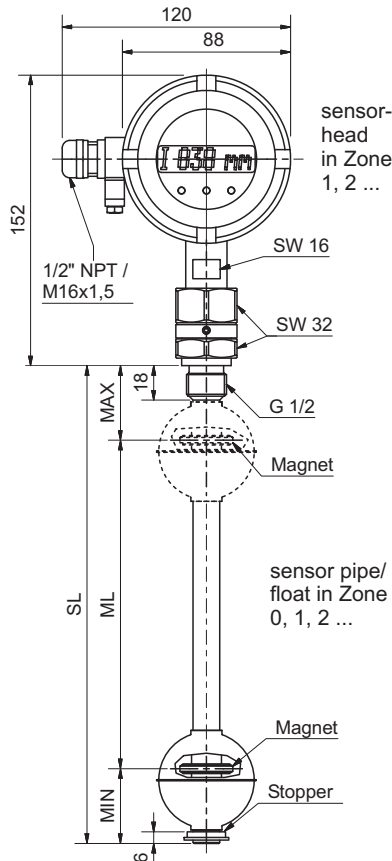
Date: 03/10



Variant with two floats



measures in mm



ML: Measuring length
SL: Sensor length
MIN, MAX and ML depend on the density and used float

For available floats see 746.FLOAT

Field of application

Small to medium ranged levels. Well suited for aggressive media. All materials in contact with media made of SS, hermetically sealed. Measuring of level and interface level (optional). Output analogue and/or digital.

Principle of function

The sensor is a magnetostrictive wire, through which a short current pulse is sent. From the place of the float's magnet, a torque wave is generated in the wire. The time of flight of this wave is output proportional to the level.

General Data

Resolution: 0.1 mm
Linearity: ±0.5 mm
Reproducibility: < 0.3 mm
Hysteresis: < ±0.5 mm
Weight: ca. 1.5 kg + 5 g/cm

Design Data

Pressure: see float data sheet
Storage temperature: -45...+85 °C
Operating temperature: -60...+185 °C
Ambient temp. ...N/...D: -25/-20...+85/+70 °C
Ambient temp. T4/T5/T6: -20...+70/+70/+60 °C
Material of sensor pipe and housing: SS
Measuring length ML: 100...5800 mm
The sensor's pipe has to be erected in a way, that with consideration of vessel intrusions and liquid flow no bouncing against the vessel, bending or breaking of the pipe can be caused. This is of severe importance for sensor pipe lengths of more then 3 m.
Number of floats: 1 or 2
Ex-classification: II 1/2 G Ex ia IIC T3...T6 (NEPSI) Ex d IIC T3...T6

Electrical Data

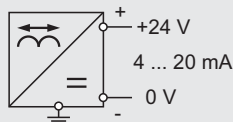
Supply voltage: 24 VDC (-40%/+20%)
Output current: 4...20 mA (Namur)
Digital port: HART
Cable gland: 1/2" NPT, M16x1.5; blue for Ex i
Wire cross section max.: 1.5 mm²
Cable length: max. 500 m with 0.5 mm²
Ingress protection EN 60529: IP67
U_P: 30 V/1 W
L/C: < 0.3 mH/53 nF

Certificates

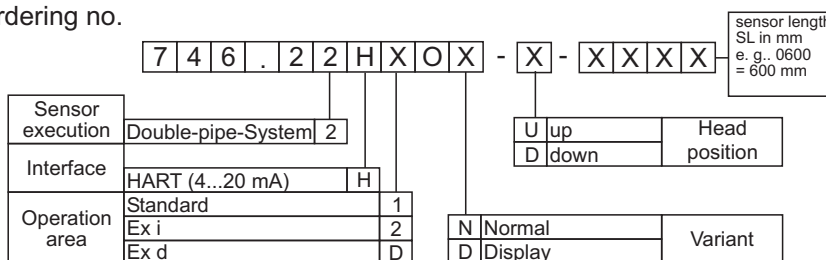
Ex i: ZELM 07 ATEX 0339
Ex d (Asia): NEPSI GYJ101053
SIL level: SIL 2

Subject to alterations

Connection diagram



Ordering no.



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