

## Float Level Meter MAGNODUL®

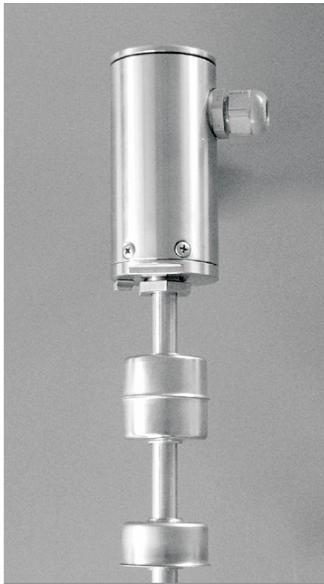
Magnetostrictive Level meter with high resolution  
For measuring of liquid levels, driven by a magnetic float  
Top-mounted design  
Serial RS232/485 compatible output  
Level, interface and optional temperature  
Documentation for ATEX certification available

Product group **746**

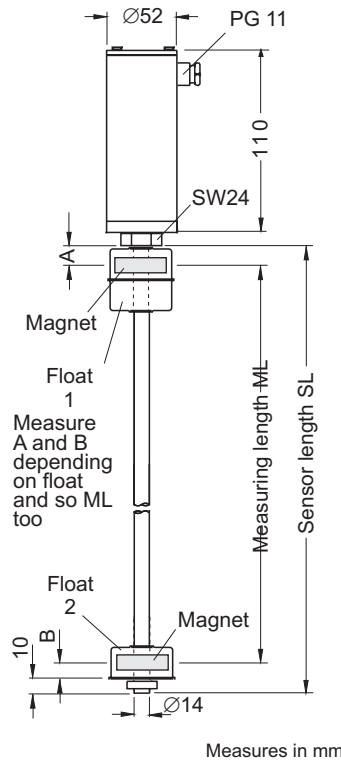
Type **2002.8**

Sheet: 1/1 Revision: 4

Date: 10/04



Type 746.2002.8  
with two floats



Measures in mm

### Field of application

Small to medium ranged levels. Well suited for aggressive media, as all materials in contact with media are made of stainless steel. Up to three measuring values are available: Level, interface and optional temperature for max. 4 positions via a serial interface.

### Functional principle

The Sensor itself is a magnetostrictive wire, through which a short current pulse flows. From the float magnet's position a torsional wave travels along the wire. The time of flight is proportional to the level height.

### General Data

Resolution: 0,2 mm  
Linearity: ±0,5 mm  
Hysteresis: ≤ 1 mm  
Temperature measur. range optional for accuracy ±1,5 °C: -25 ... +150 °C  
Weight: ca. 1,5 kg + 5 g/cm

### Design Data

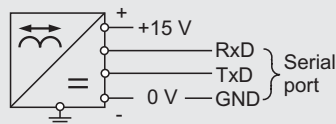
Pressure: see float table  
Storage temperature: -45 bis +85 °C  
Operating temperature without T: -60 bis +180 °C  
Operating temperature with T: -25 bis +150 °C  
Ambient temperature (T4): -25 bis +85 °C  
Material all Sensor parts and housing: SS  
Measuring length ML: 100 bis 5800 mm  
Number of floats: 1 or 2  
\*Ex-classification: \*II 1/2 G EEx ia IIC T4  
U<sub>0</sub>/P<sub>0</sub>: 15 V/0,1 W  
L/C<sub>0</sub>: < 0,3 mH/10 nF

### Float table

Shape	Density	Pressure	Material	Dimensions HxDxD [mm]	Ordering no.
Cylinder	> 0,75	ANSI 150	1.4571	43x43x15,5	SZ0431504444
Cylinder	≥ 0,5	ANSI 300	3.7025/35	156x56x16	SZ1561605664
Sphere	> 0,65	ANSI 150	1.4571	52x52x15,5	SK0521505354
Sphere	> 0,8	ANSI 150	1.4571	52x52x15	SK0521505254

Floats for other densities, Interface or higher press. are available on req.

### Connection diagram



### Electrical Data

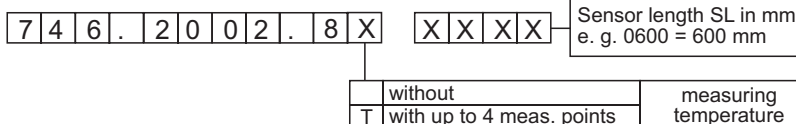
Supply voltage: 15 VDC  
Digital port: RS485  
Cable gland: PG 11 blue  
Wire cross section max.: 1,5 mm<sup>2</sup>  
Cable length: max. 500 m with 0,5 mm<sup>2</sup>  
Ingress protection EN 60529: IP65

### Certificates

EC-Certification: \*prepared for ATEX certification (Zone 0/T4)

Subject to alterations

### Ordering no.



### PHÖNIX

Messtechnik GmbH  
Salzschlirfer Straße 13  
D-60386 Frankfurt/M.  
Tel. +49/69/41 67 42 - 20  
Fax +49/69/41 67 42 - 29  
sales@phoenix-mt.com  
www.phoenix-mt.com

