

## Float Level Gauge

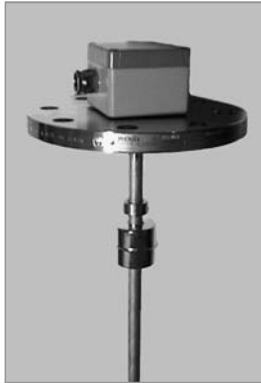
Level sensor using a magnetic float to operate reed switches in a resistive chain to give a dis-continuous output  
3-wire resistance transmitter or  
2-wire 4-20 mA transmitter with integrated R/I-converter, HART  
Materials in contact with media hermetically sealed

Product group **746**

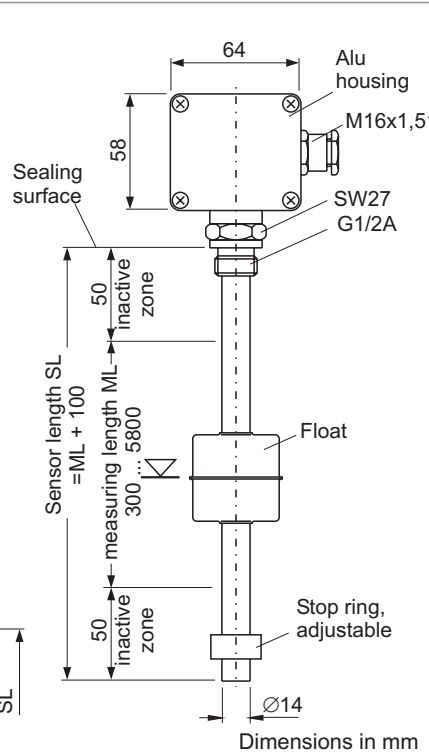
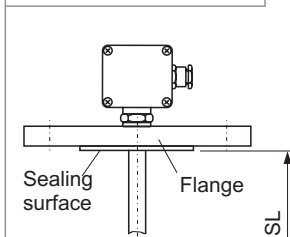
Type **1XXX**

Sheet: 1/1 Revision: 7

Date: 03/07



Example picture:  
Flange mounted  
Cylindric float



### Field of Application

This level sensor is for measuring liquid level or interface dis-continuously. It only can be used vertically. Depending on the float material used (1.4571, Titanium) it can be used for a broad range of applications. The Ex-proof versions can be used in Zone 1 and Zone 2, the R-transmitter type 1XX2.2 only in combination with Zener-barriers.

### General Data

Resolution .115X.X / .110X.X / .105X.X: 15/10/5 mm  
Hysteresis: 8 mm  
Linearity of R/I-converter / Reed chain:  $\pm 0,15\%$  /  $\pm 1,5\%$   
Temperature coefficient:  $< 0,015\%/^{\circ}\text{C}$   
Measuring length ML: 300...5800 mm  
Connection: Thread G1/2A or flanges from DN50 DIN/2" ANSI  
Housing material, dimension: Alu, 64x58x37 mm  
Diameter slide tube: 14 mm  
Weight: G1/2A: ca. 0,8 kg + 7 g/cm

### Design Data

Pressure: see Float selection table, max. 6,4 MPa  
Temperature Ambient:  $-40$  to  $+80\text{ }^{\circ}\text{C}$   
Temperature Media:  $-40$  to  $+125\text{ }^{\circ}\text{C}$   
Material in contact with media: 1.4571...  
Ex-classification: .1XX2.7: II 1G EEx ia IIC T6...T1  
U/I/P: 28 V/120 mA/0,84 W  
L/C:  $\leq 10\text{ }\mu\text{H}/\leq 1\text{ nF}$

### Electrical Data

Cable gland: M16x1,5 (for Ex blue)  
Ingress protection EN 60529: IP 67  
Total resistance R Reed chain: 940  $\Omega/\text{m}$

### R/I-converter

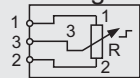
	.1XX1.7	.1XX2.7
Supply voltage	8...36 VDC	8...28 VDC
Supply current	4...20 mA	4...20 mA
max. burden at 24 V	800 $\Omega$	695 W
setting range	0 %	4...20 mA
	100 %	20...4 mA

### Float selection table

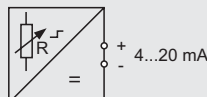
Shape	Density	Press. [MPa]	Material	Dimension HxDxD [mm]	Ordering no.
Cylinder	$> 0,75$	ANSI 150	1.4571	43x43x15,5	SZ0431504444
Cylinder	$\geq 0,5$	ANSI 300	3.7025/35	156x56x16	SZ1561605664
Ball	$> 0,65$	ANSI 150	1.4571	52x52x15,5	SK0521505354

Floats for lower densities, interface measurement or higher pressures on request

### Connection diagram



Type 746.1XXX.2  
3-wire R-Transmitter



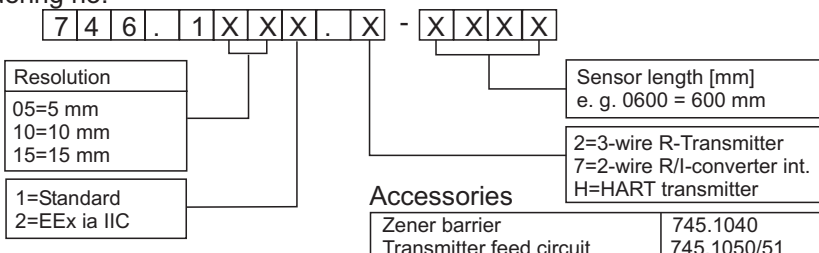
Type 746.1XX1.7 Std./ .1XX2.7 Ex  
2-wire R/I-converter

### Certificates

2-wire transmitter:  
Hart transmitter:

DEMKO 99 ATEX 127088  
KEMA 03 ATEX 1537  
Subject to alterations

### Ordering no.



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