

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**

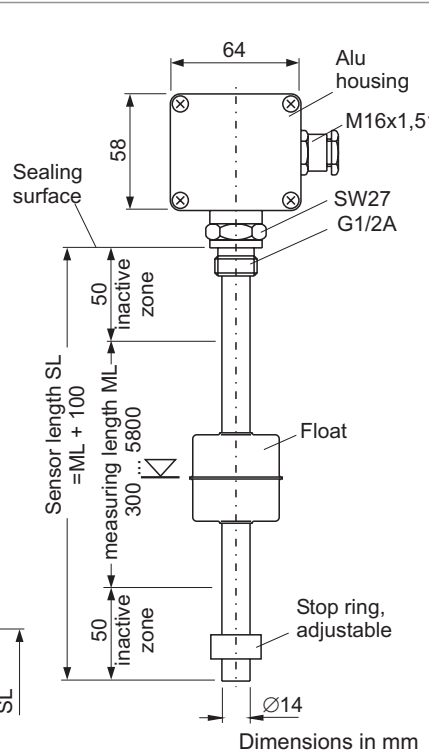
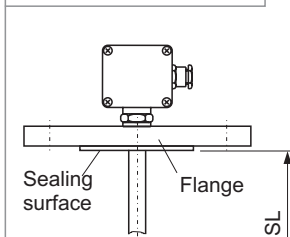
Type **1XXX**

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 Ω/m

R/I-converter

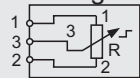
	.1XX1.7	.1XX2.7
Supply voltage	8...36 VDC	8...28 VDC
Supply current	4...20 mA	4...20 mA
max. burden at 24 V	800 Ω	695 W
setting range	0 % 100 %	2,5...4,5 mA 4...20 mA 20...4 mA

Float selection table

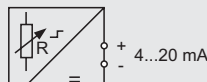
Shape	Density	Press. [MPa]	Material	Dimension HxDxD [mm]	Ordering no.
Cylinder	$> 0,75$	ANSI 150	1.4571	43x43x15,5	SZ0431504444
Cylinder	$\geq 0,5$	ANSI 300	3.7025/35	156x56x16	SZ1561605664
Ball	$> 0,65$	ANSI 150	1.4571	52x52x15,5	SK0521505354

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

Connection diagram



Type 746.1XXX.2
3-wire R-Transmitter



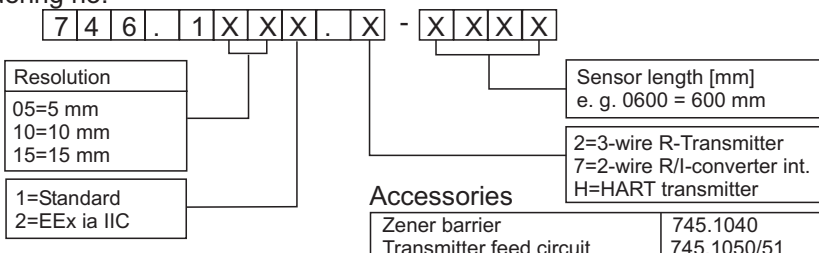
Type 746.1XX1.7 Std./ .1XX2.7 Ex
2-wire R/I-converter

Certificates

2-wire transmitter:
Hart transmitter:

DEMKO 99 ATEX 127088
KEMA 03 ATEX 1537
Subject to alterations

Ordering no.



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