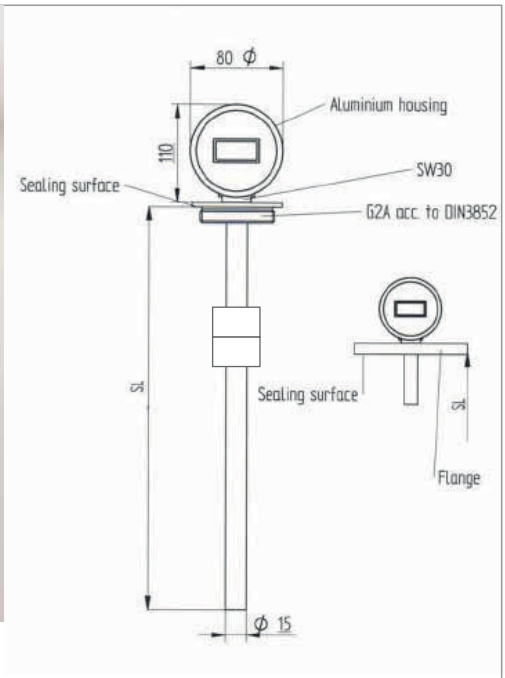
PHÖNIX CONTROL Founded 1981

PHÖNIX CONTROL Méréstechnikai és Alkatrészgyártó Kft.

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	**3XXX**
Sheet: 1/1	Revision: 8
Date:	04/22



Dimensions in mm

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:	.105X.X: 5 mm, .110X.X: 10 mm
Hysteresis:	< 22 mm
Linearity of R/I-converter:	.1XX2.7: ± 0,15 %
	.1XX1.7: ± 0,1 %
Temperature coefficient:	.<0,015 %/°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 °C
Temperature Media:	-40 to +125 °C
Material in contact with media:	1.4571...
Ex-classification:	.1XX2.7: II 1G EEx ia IIC T6...T1
$U_i/I_i/P_i$:	28 V/120 mA/0,84 W
L_i/C_i:	10 H/ 1 nF

Electrical Data

Cable gland:	M16x1,5 (for Ex blue)
Ingress protection EN 60529:	IP 65

R-transmitter .1XXX.2

Total resistance R:	.1151.2:	6,6 k /m
	.1101.2:	10 k /m
	Ex i (.1XX2.2 + Zener barrier):	40 - 100 k

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	695 W
setting range 0 %	2,5...4,5 mA	4...20 mA
100 %	15...24 mA	20...4 mA

Certificates

2-wire transmitter:	DEMKO 99 ExNB ATEX 127088
Hart transmitter:	DEMKO 99 ExNB ATEX 126965

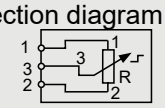
Subject to alterations

Float selection table

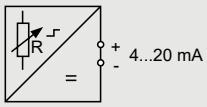
Shape	Density	Press. [MPa]	Material	Dimension HxDxd [mm]	Ordering no.
Cylinder	> 0,75	ANSI 150	1.4571	43x43x15,5	SZ0431504444
Cylinder	0,5	ANSI 300	3.7025/35	156x56x16	SZ1561605664
Ball	> 0,65	ANSI 150	1.4571	52x52x15,5	SK0521505354

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

Ordering no.

7 4 6 . 3 X X X . X - X X X X

Resolution
10=10 mm
05=5 mm, 01=1mm

1=Standard
2=EEx ia IIC

2=3-wire R-Transmitter
7=2-wire R/I-converter int.
H=HART transmitter

Sensor length [mm]
e. g. 0600 = 600 mm

Accessories

Zener barrier	745.1040
Transmitter feed circuit	745.1050/51

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