

Remote control

Electronic Remote control for magnetically operated reed switches in level sensors
3-wire resistance transmitter or
2-wire 4-20 mA transmitter with integrated R/I-converter,
HART protocol or fieldbus

Product group **745**

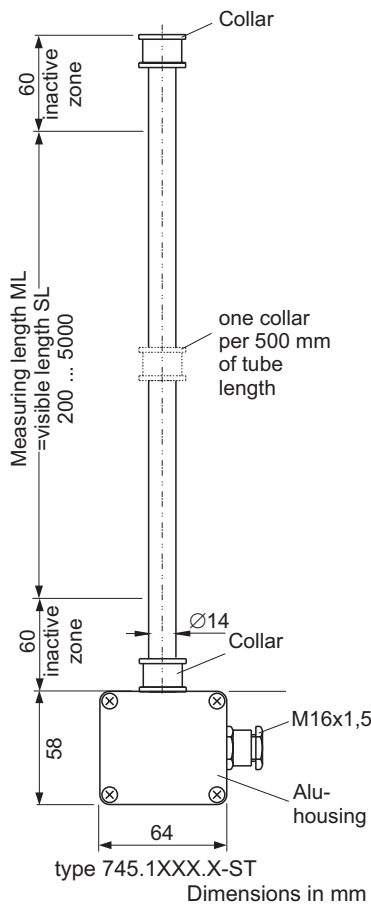
Type **1XXX**

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Example picture:
0 - 100 %
Terminal box
down



Field of Application

This Remote control is for measuring level discontinuous at PHÖNiX magnetic level gauges and mounted externally. It is an accessory to a local indicator. Ex-proof types can be used in Zone 1 (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 15/10/5 * mm: < 22/22/2,5 mm
Linearity of R/I-converter/Reed chain: ± 0,15 % / ± 1,5 %
Temperature coefficient: < 0,015 %/°C
Measuring length ML: 200...5000 mm
Fixture: collar, ordering no. see page 2
Housing material, dimension: Alu, 64x58x37 mm
Diameter Sensor pipe: 14 mm
Weight: ca. 0,8 kg + 7 g/cm*)
*) for all PHÖNiX Magn. Level Gauges except 710.110

Design Data

Temperature Ambient/T4/T6: -40 to +85/85/60 °C
Temperature media in the tube: < 400 °C *)
Ex-classification: II 1G EEx ia IIC T4/T6
U/I/P/L/C, .7/.H: 28 V/120 mA/0,84 W/ 10 H/ 1 nF
U/I/P/L/C, .F: 30 V/120 mA/0,84 W/ 1 H/ 2 nF
*) Above 150 °C insulation between tube and sensor is needed, above 120 °C sensor may not be included in the insulation!

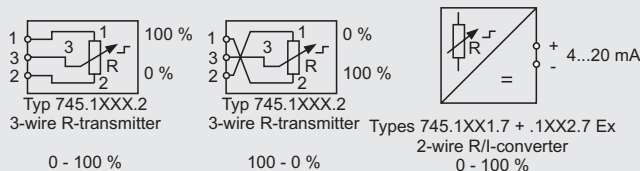
Electrical Data

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 Ω
setting range	0 % 100 %	4...20 mA 20...4 mA

Connection diagram



Certificates

2-wire transmitter: DEMKO 99 ATEX 127088
Hart transmitter: KEMA 03 ATEX 1537
Fieldbus-Transmitter: KEMA 02 ATEX 1318
Subject to alterations

Ordering no.

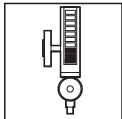
7 4 5 . 1 X X X . X - X X X - X X X X - Measuring length ML [mm]

Resolution	5 mm	0 5	S T N straight, 150 °C	Form, media temperature
	10 mm	1 0		
	15 mm	1 5		
Version	Standard	1	W I T bent, >150 250 °C	
	Ex	2		
Transmitter	without	2	W I H bent, >250 °C	
	2-wire, 4...20 mA	7		
	2-wire, HART	H		
	2-wire, Fieldbus	F		

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PHÖNiX



Remote control

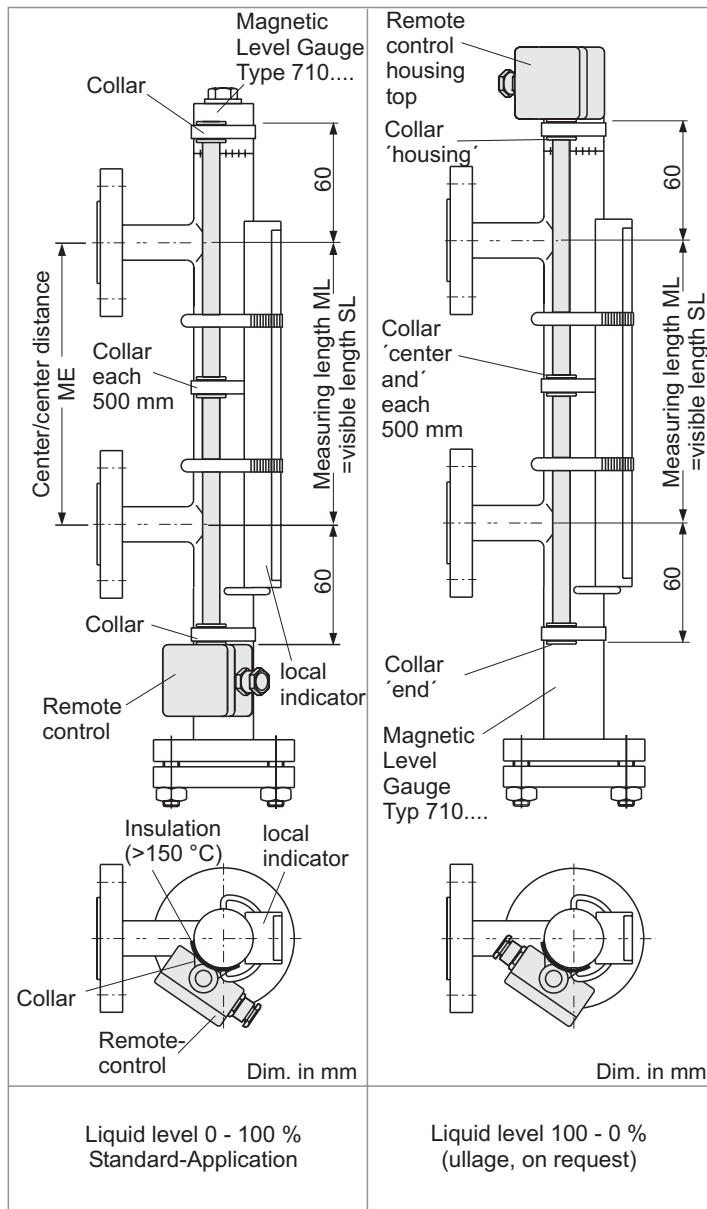
Application hints

Product group **745**

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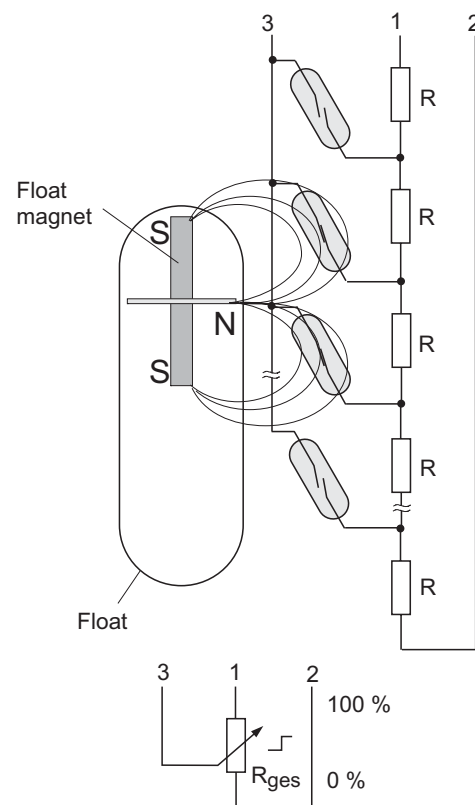


Functional description

The remote Control is actuated by the magnetic field of a magnet in a float. The circuit is equivalent to a 3-wire potentiometer-pickoff.

Corresponding to the float's position within the magnetic gauge tube the Reed-switches are actuated accordingly by the magnetic field. Those are tapering without interruption the resistor-chain potentiometer.

So the signal is dis-continuous and proportional to the liquid level within the gauge tube.



Equivalent circuit

Subject to alterations

Ordering no.

Mounting accessories	Collar for 710.104/2XX	171546
	Collar for 710.100/103	171546
	Collar for 710.110/120/106/130/100.3	171553
	Insulation for media temperature >150 ≤250 °C	GEW50GQ03
	Insulation for media temperaturer >250 °C	59456008GL
Elektrical accessories	Zener barrier	745.1040
	Feed circuit	745.105X

PHÖNIX

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