

## 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**

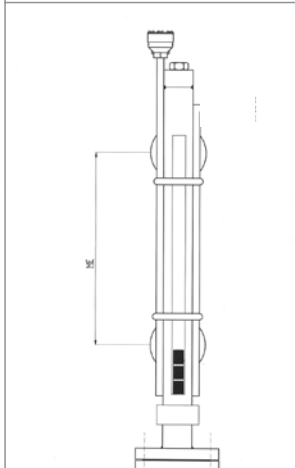
Type **1XXX**

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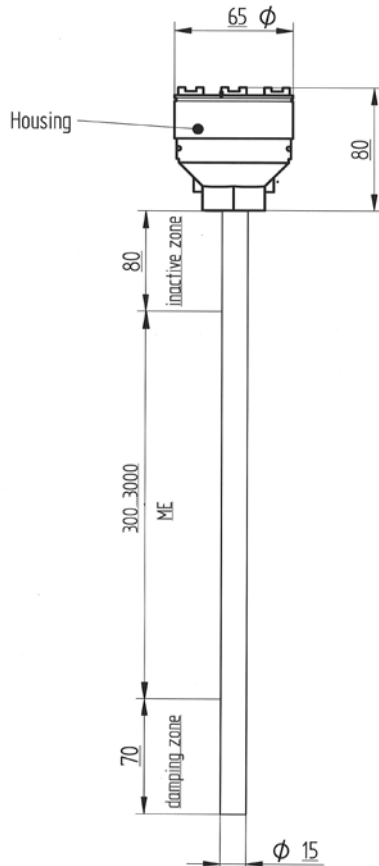
Date: 04/22



Example picture: 0 -100 %  
Terminal box down



Design for insulation  
type 745.1XXX.X-WI



type 745.1XXX.X-ST  
Dimensions in mm

## 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!

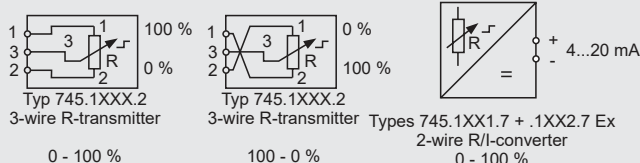
## Electrical Data

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 %	2,5...4,5 mA 4...20 mA 20...4 mA

## Connection diagram



## Certificates

2-wire transmitter: DEMKO 99 ExNB ATEX 127088  
 Hart transmitter: DEMKO 99 ExNB ATEX 126965  
 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	10 mm 1 0	15 mm 1 5
Version	Standard 1	Ex 2	
Transmitter	without 2	2-wire, 4...20 mA 7	2-wire, HART H
		2-wire, Fieldbus F	
	S T N straight, 150 °C	W I T bent, >150 250 °C	W I H bent, >250 °C
	Form, media temperature		

## Phönix Control Kft.

Bolyki Tamás street 44.

Ozd, 3600, Hungary

Tel.: +36-48-572-310

+36-48-572-567

Fax: +36-48-471-642

E-mail: info@phoenix-brv.hu

web: www.phoenixcontrol.hu

## Remote control

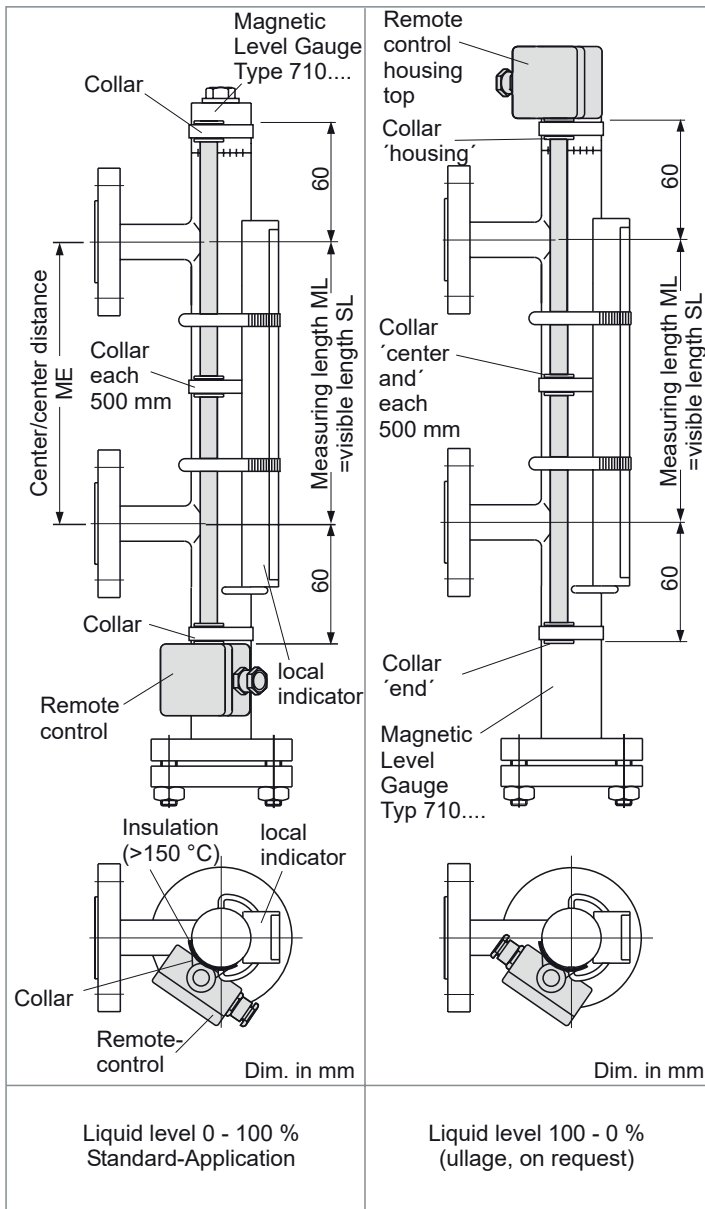
Application hints

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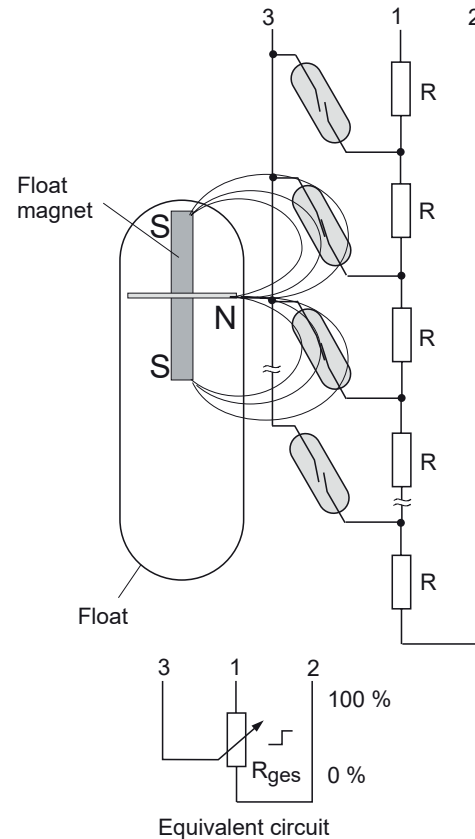


## Functional description

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.



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
Elektrical accessories	Insulation for media temperaturer >250 °C	59456008GL
	Zener barrier	745.1040
	Feed circuit	745.105X

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 Ozd, 3600, Hungary  
 Tel.: +36-48-572-310  
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 Fax.: +36-48-471-642  
 E-mail: info@phoenix-brv.hu  
 web: www.phoenixcontrol.hu