

Remote Control MAGNODUL®

Electronic remote control with a magnetostrictive Sensor
high resolution
high magnetic field sensitivity for float magnets
2-wire 4-20 mA passive

Product group **745**

Type **300X**

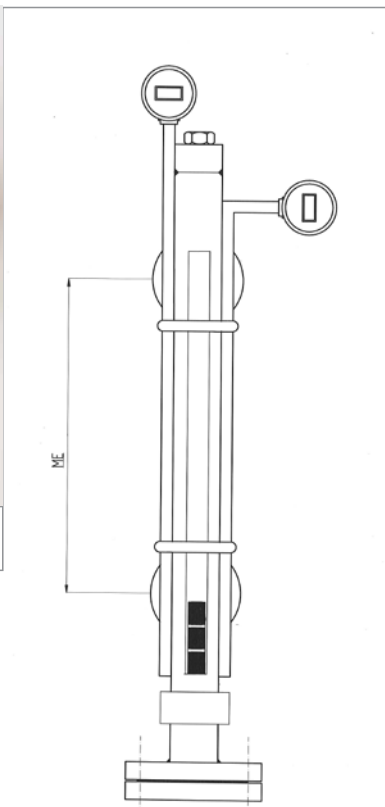
Sheet: 1/1 Revision: 7

Date: 04/22



Type .3003

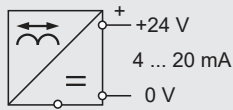
type 745.300X



Mounted at a Bypass-pipe
Design for insulation
type 745.300X

Measures in mm

Connection diagram



Field of Application

This Sensor MAGNODUL® is for measuring the liquid level/ullage in a magnetic level gauge Type 710.104/098 and is a supplement to the local indicator. It can be used in Ex-Zone 1 and 2.

Principle of function

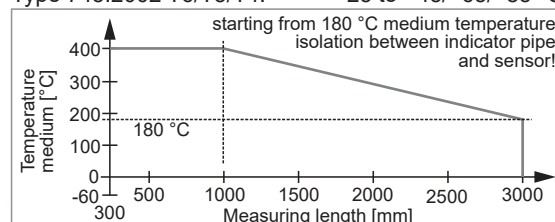
The sensor is a magnetostrictive wire, which is flowed through by a short current pulse. From the place of the float magnet a torque wave proceeds, whose running time is a measure for the level.

General Data

Accuracy: $\leq 0,05\%$ of ME or ± 2 mm
Resolution: $< 0,1$ mm
Linearity: $\leq 0,07\%$ of ME or $\pm 0,5$ mm
Hysteresis: < 10 mm
Temperature coefficient: $0,025\%$ of ME/K
Innage/Ullage: Innage preset at works
Weight: ca. $1,5$ kg + 5 g/cm

Design Data

Pressure: same as magnetic level gauge
Temperature storage: -45 to $+85$ °C
Temperature ambient Type 745.2001: -40 to $+85$ °C
Type 745.2002 T6/T5/T4: -25 to $+45/+65/+85$ °C



Material Sensor tube and housing: SS
Measuring length: 300 to 3000 mm
Ex-classification: II 2 G EEx ia IIC T6/T5/T4
U_i/I_p/P_i/L_i/C_i: 30 V/100 mA/1 W/ $\leq 0,3$ mH/ <10 nF

Electrical Data

Supply voltage: 10 to 30 VDC
Current loop 2-wire: 4 to 20 mA
Burden R: $R = (U - 10 \text{ V}) / 0,02 \text{ A}$
Cable gland: M16x1,5, for Ex blue
Cross section wire max: $1,5 \text{ mm}^2$
Cable length: max. 2000 m at $0,5 \text{ mm}^2$
Ingress protection EN 60529: IP65

Certificates

EC-Type Examination Certificate:
ZELM 03 ExNB ATEX 0132

Subject to alterations

Ordering no.

745.200X - XXXX

Standard
Ex

1
2

Center to center ME in mm
e. g. 0600 = 600 mm

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