



- approvals for Ex-area Zone 0 and as part of an overflow prevention according to VbF and WHG
- continuous level measurement in liquids
- measurement transmission through pulse length modulated signals in 2-wire-technique

Resolution 18.5 mm (standard)

HR-348801/W0112

Resolution 10.0 mm

HR-348801/S/W0112

Function principle

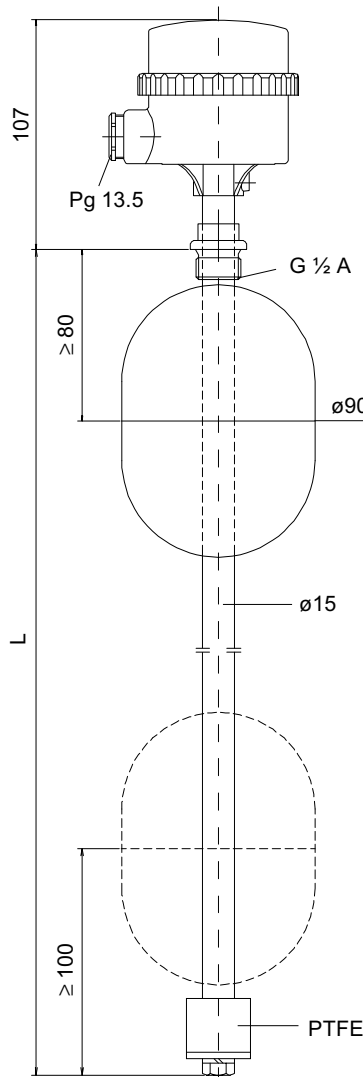
A ring magnet built into the float actuates reed contacts of a resistor chain inside the guide tube.

The resistor chain changes the total resistance depending on the level. The total resistance, which is proportional to the level, is converted into a PLM-signal by the converter HR-0112. These are transferred to a suitable signal conditioner via a 2-wire-lead and converted into a standard signal by this signal conditioner.

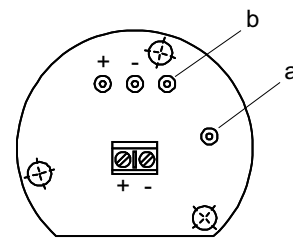
Note

Pay attention to the approvals / certifications or the certificate of conformity when applying in hazardous areas or as overflow prevention.

Dimensions



Electr. converter HR-011200
build into terminal box



circuit board in
terminal box

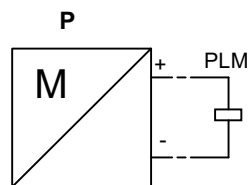


Attention Please specify the tube length (L) when ordering.

Types

HR-348801/ □ /W0112
|
resolution

Connection



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Technical data	
Approvals / Certifications Approval according to VbF Approval according to WHG Approval according to Ex	PTB Nr. Ex-81/2154 Z-65.11-19 PTB Nr. Ex-81/2154
Ignition protection class	EEx ia IIC T6 - Zone 0
Supply Voltage Current Capacitance Inductance	of the electrical converter HR-0112 in the terminal box DC 6.5 ... 16.5 V from the analyser unit ≈ 15 mA ≤ 30 nF negligible
Signal transmission	PLM current impulses on the supply lead (2-wire safety system)
Environmental conditions Temperature Pressure	Ex-range, overspill prevention VbF: -20 °C ... +60 °C (253 K ... 333 K) Ex-range, overspill prevention VbF: 16 bar
Process conditions Temperature Pressure Density	Overspill prevention WHG: atmospheric conditions Overspill prevention WHG: atmospheric conditions ≥ 0.7 g/cm ³
Electrical output	2-wire PLM for connection to a signal conditioner HR-1681 or HR-1785
Electrical connection	2 terminals
Process connection	Thread G½A, stainless steel 316 Ti / 320 S 18
Construction Float, guide tube Terminal box	Material: stainless steel 316 Ti / 320 S 18 Material PBT
Protection class acc. to DIN 40 050	IP 65
Technical data Response sensitivity	Electrical converter HR - 011200 Measuring ranges 0.5 ... 50 kΩ
Supply Nominal voltage Nominal current max. self-capacitance max. self-inductance	DC 6.5V ... 15V < 20 mA 30 nF negligible
Measuring voltage max. voltage max. current Frequency	5 V 1 mA ca. 0.12 ... 12.8 kHz inversely proportional to the measured value R
Output signal	pulse length modulated current impulses (PLM)
Environmental conditions Temperature	-20 °C ... +70 °C (253 K ... 343 K)

A measuring system consists out of:

- a magnet-operated immersion probe HR-348801/□/WO112 with build-in converter HR-011200 and signal conditioner HR-1681□□ or HR-178500