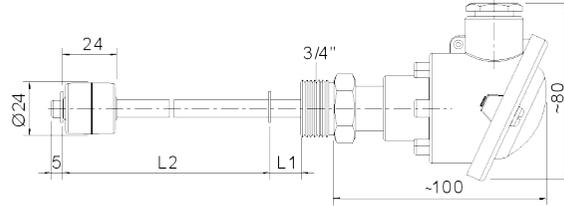


Magnetic float level transmitter E2716 is intended for control of liquids level in tanks. The instrument uses the magnetic float moving along the stem, and the reed switches installed inside the stem. The reed switches are actuated by the magnetic field generated by the float, thus the output signal is proportional to a liquid level.

Thanks to wetted parts fully made of V4A grade stainless steel, the E2716 level transmitter may be used in various liquids including water, beverages, oils, fuel, and operates at fluid temperatures up to +120 °C.

NB For liquids with density less than 0.9 g/cm³, polyamide floats are recommended. Operating temperature range for PA floats is -10...+90 °C.

Dimensions



Cautions

- The specified pressure, temperature and electrical limitations must not be exceeded. The pressures and temperatures must take into consideration possible surges in the tank.
- The liquid should not be heavily contaminated or tend to crystallize. The liquid must be compatible with the AISI316 / A4 grade stainless steel.
- Operating temperature changes can affect E2716 setpoints, since density of liquids vary with temperature.
- E2716 level transmitters are designed to be shock and vibration resistant, however for maximum operation life shock and vibration should be minimized. Any strong mechanical stress like bending of the stem, dropping, bumping or shaking should be avoided as the reed switches are fragile.
- Do not use the transmitter in ferromagnetic surroundings. Installation in a tank made from magnetic materials may affect E2716 operation.
- Do not operate E2716 in the immediate vicinity of strong electromagnetic fields. The distance from sources of electromagnetic fields should be at least 1 m.
- Position the transmitter strictly vertically.
- The transmitter should be mounted away from liquid inlet, as strong liquid fluctuation may produce error output signals.
- To determine the suitability of E2716 for your application, consult the manufacturer.

Installation and connections

Select a mounting place for the transmitter taking into consideration cautions listed in the previous section. Install a 3/4" nut on the selected point (e.g. by welding). Screw the device into the nut. Remove the terminal head's lid and connect a 24 VDC power supply unit and a measuring device with a 4-20 mA analog input as shown on the diagram below. Use wires with max. cross-section 0.75 mm² and with an insulation suitable to operating conditions. We recommend to strip the wire end by 4 mm and tin it, or to use the wire end sleeves. Use a current limiting resistor R to connect the measuring device. The total resistance of the current limiting resistor and the measuring device should not exceed the value indicated as Load resistance in the Specifications table. Re-install the lid. Make sure that the screws of the lid and of the cable inlet are properly tightened.

Specifications

Sensing method	magnetic floats and reed switches
Resolution	5 mm
Accuracy	± 5 mm
Stem length	from 100 mm to 1000 mm
Max level	at distance L1 from top, L1 > 10 mm
Min level	at distance L1+L2 from top, 100 mm < L2 < 1000 mm
Analog output	single output 4-20 mA
Output scale	0-100% (4mA - 0%, 20 mA-100%)
Power supply	11...30 VDC, nominal 24 VDC
Load resistance (Ohm)	≤ (U _s - 11)/0.0226A
Power consumption	< 2 VA
Process connection	3/4" thread, outside mounting
Stem	Stainless steel or polyamide, IP68
Float material	Stainless steel for liquids with density > 0.9 g/cm ³ Polyamide for liquids with density < 0.9 g/cm ³
Process temperature	-40...+120 °C (with stainless steel float) -10...+90 °C (with polyamide float)
Terminal head	DIN Form B head, IP65 aluminium alloy as standard, stainless steel on request
EMC	according to 2014/30/EU, 2014/35/EU and EN61326-1 requirements

Maintenance

In case of viscous, contaminated or crystallizing liquid one should inspect the transmitter regularly to be sure that the floats are moving freely along the stem and that the float and the stem are not coated with any substance, which significantly changes float weight or dimensions.

If contamination is observed, the floats and the stem of the transmitter should be cleaned carefully to remove the build-up, while not deforming or damaging the parts.

Warranty

This product is warranted to be free from defects in material and workmanship for a period of one year from the date of original sale. During this warranty period Manufacturer will, at its option, either repair or replace product that proves to be defective.

This warranty is void if the product has been operated in conditions outside ranges specified by Manufacturer or damaged by customer error or negligence or if there has been an unauthorised modification.



Magnetic float level transmitter E2716

User Manual

