

Level transmitter (float switch) made of stainless steel, biodiesel resistant



The level transmitter AE-100-BD has been conceived for the use in non-flammable liquids (such as mineral oil, heating oil, biodiesel, diesel with vegan parts, water, glycol, etc.), to pinpoint the exact remaining contents.

This allows the control of electrical components such as pumps. This is the case for an automated request by the pump in pre-defined filling levels, for refueling, if lowest point has been reached or switch of the pump, when highest point has been reached. Remote information is also possible as well as an emergency switch off once the lowest level has been reached.

The AE-100-BD is a flexible level indicator that is fixed at a cable with electrical plastic insulation. The indicator is a head made of stainless steel in which there is a short gliding pipe incorporated. The swimmer with an integrated magnet ring is gliding on top of the gliding pipe, where a reed switch has been integrated. The switch contact of the reed switch is being activated while the magnetic ring of the swimmer is gliding over the reed contact and is either opening or closing it, depending on its position.

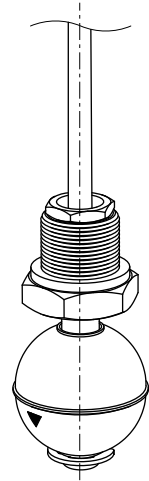
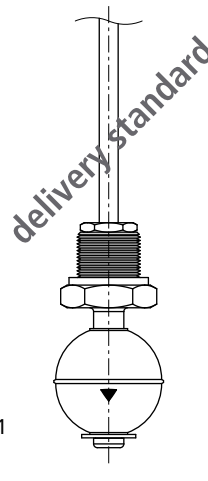
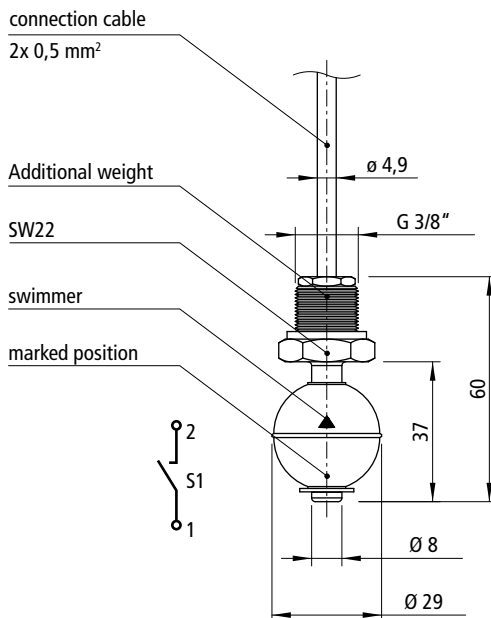
Switch variants of the AE-100-BD

NO contact

Contact closes when filling level rises
(Normally Open)

NC contact

Contact opens when filling level rises
(Normally Closed)



Technical data

- body made of stainless Steel 1.4571
- cable 2x 0,5 mm² ÖLFLEX® ROBUST 210
- cable length 5 m

Technical data - switch contact

- type: reed contact
- contact resistance max. 0,1 Ω
- switch current max. max. 0,5 A
- switch tension max. 250 V
- switch capacity max. 10 VA

- protection class IP68 according to DIN VDE 0470 T1
- operating pressure max. 5 bar
- ambient temperature -5°C up to +70°C
- medium temperature -5°C up to +70°C

Information:

- No approval for level sensor AE-100-BD is necessary since it is used as contact only inside the tank system such as for pump control "pump on" (LSL contact) and "pump off" (LSH contact).
- For the alarm switching point "overfilling" (LSHH), only approved overfilling protections are allowed to be used.
- The allowed temperature range for the fixed cable is from -50°C to +80°C and for the movable cable from -40°C to +80°C.
- Resistance as per VDE 0282: The cable resists against oil, grease, heating oil, biodiesel, diesel fuel with vegan parts, water and weather influences, ozone and oxygen as well as UV-rays.

Technical changes reserved !

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**Advantages:**

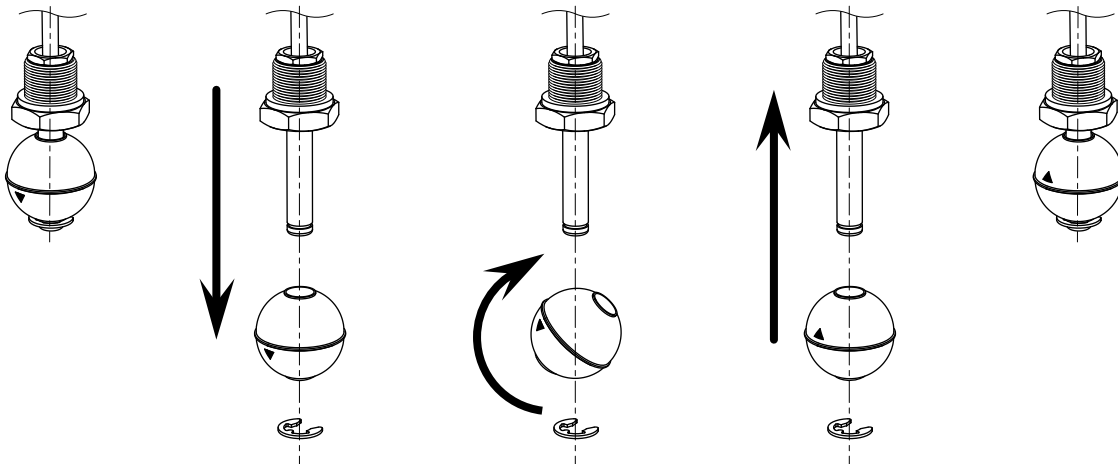
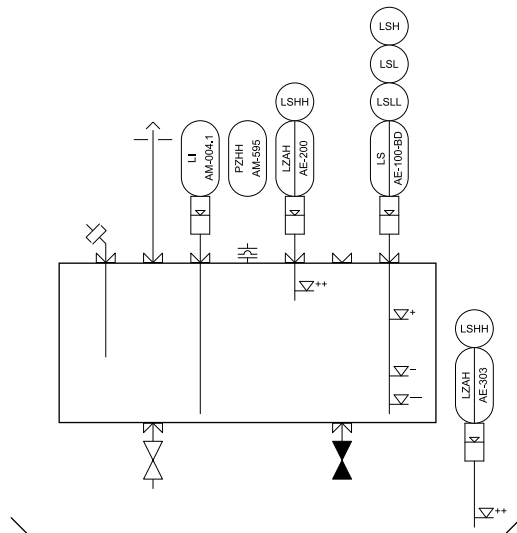
- high-quality sensor head made of stainless steel
- flexibly adjustable switching points by simply clamping the cable in a special tank screw connection
- problem-free installation of up to four switching points in a special tank screw connection
- problem-free installation and removal of the sensors by flexible cable
- one sensor for all switching points in the tank (except certified overflow protection application)

Inconveniences:

- probe cable is the most sensitive part of the sensor - mechanical damages possible (caution with installation and removal!)
- tangling of the cable is possible once there is a strong current within the tank

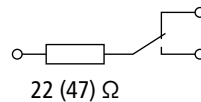
Easy functional changes

By detaching the floater and turning it 180°, the function "NC contact" converts to the function "NO contact".

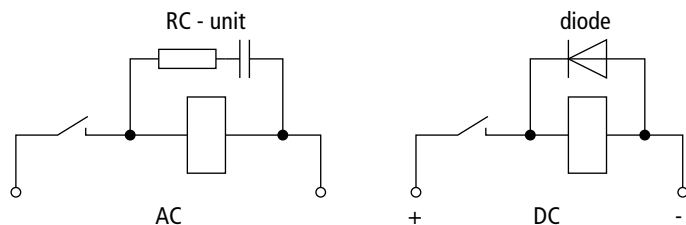
**Examples**

day tanks with three level transmitters

- LSHH - overflow alarm is activated
 LSH - pump off
 LSL - pump on for automatic refill
 LSL - low alarm is activated

Switch

To limit the peak current once there is a capacitive overload or a cable with a length of over 50 m or a connection of a process controlling system with capacitive input, a protective resistance of 22 Ohm and 47 Ohm, respectively (with 10VA contacts) must be connected in series.

Electrical connection

The electrical connection must be made as required by local regulations of each country. Electrical connections must only be made by professional electricians. To increase the longevity of the contact, installation of a contact protection relay is recommended.

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