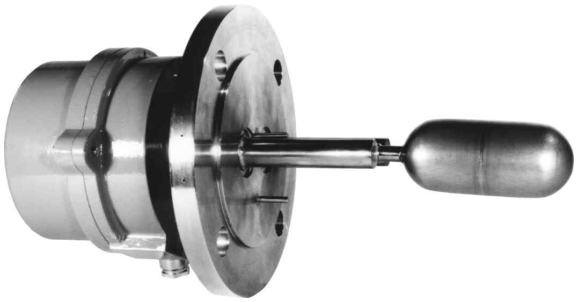
EARL Level switch type 86

Application

Designed for constant and long-term maintenance free operation the **level switch type 86** is used to control liquid levels in containers. The unit is side mounted by flange to the container.



Operation

A float or displacer with strong weight and lift forces is fixed to the lever arm which rotates on the vertical plane. Two columns support the bearing for the lever arm. A permanent magnet is situated at the upper end of the lever which operates either one or two switch contacts.

Advantages

- Suitable for contaminated and aggressive media.
- Model Ex de II CT6 according to ATEX
- For operating temperatures up to 350 °C and operating pressures up to 320 bar.
- Model available for use in maritime and humid tropical climates.
- Long-term continuity of spares availability.

Suitability

- Automatic control of tank farms.
- Level control in heating oil boilers.
- Overflow detection in containers (with German Water Authority Approval = WHG).

Standard model type 86

- Connecting flange (standard) DN 50 PN 16 / 2” ANSI 150 lbs RF
- Diameter of float Ø 45 x 100 mm
- Size „x“ = 200 mm (face of flange to end of float).
- Either one or two encapsulated S.P.D.T. magnetic contacts.

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Technical date

Media	Liquids with density ≥ 0,5 kg/dm³.
Repeatability of set point with „x“ = 200 mm	about 2 mm level difference.
Hysteresis	between on and off about 5 mm level difference.
Pressure range	PN 10 to PN 320, higher values on request.
Operating temperature	Standard model up to 100 °C medium temperature. Special model **Ht** up to 350 °C medium temperature, also suitable for intrinsically safe circuits.
Ambient air temperature	- 35 to + 80 °C. - 20 to + 40 °C (explosionproof model). - 20 to + 50°C (Ex ia model)
Size „x“ (Face of flange to end of float)	200 mm, 300 mm or to suit customers requirements.
Materials *Standard model*	wetted parts are made of corrosion and acid resistant stainless steel, material no. 1.4571 (A 316 Ti), switch housing aluminium.
Special model	wetted parts are made of Monel; SMO; Hastelloy C or Titan; PVC; PVDF or PTFE. Switch housing SS 1.4408 (AISI CF-8).
Protection class	switch housing according to DIN EN 60529, IP 65.
Cable entry	*M20 x 1,5 or* to suit customers requirements.

Switch contacts

Switch contact (S.P.D.T.)

Typ	Contact-material	U max	I max	P max
GWW / GWW ht	AgSnO	250 V AC/DC	3:00 AM	450 VA / 300 W
GWG / GWG ht	Gold	42 V AC/DC	300 mA	13 VA / 13 W
177 GWW	AgSnO	250 V AC/DC	2:00 AM	450 VA / 300 W
177 GWG	Gold	42 V AC/DC	300 mA	13 VA / 13 W
Mikroswitch		250 V AC	10 (4) A	

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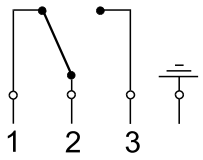
Wiring diagram



Further variation:

- Connection flange DN…PN or ANSI lbsRF
- Float diameter ≤ 62 mm
- Size x = 300mm

Hazardous class variation

Type 86(Ex)ib	simple electrical equipment acc. EN 60079-11/5.7
Type 86(Ex)	Ex de II CT6
Type 86(Ex)ia	II ½ G Ex c ia T85°c IP65
Type 86(Ex)de	II ½ G Ex c de T85°c IP65

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03/2021 Subject to technical changes