

APPLICATIONS

Liquid container monitoring in household appliances, automotive applications, test and measurement, and control technology.

FEATURES

- Depending on mounting position/movement direction, the sensor opens or closes with the rising, respectively the sinking liquid level
- Different versions available for mounting from inside or from outside
- · High power switches available

DESCRIPTION

Standard liquid level sensor. The sensor has to be mounted horizontally for best results.

Following materials are available:

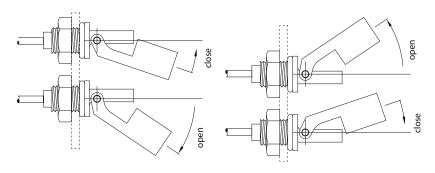
- **PP** (Polypropylene) for water applications and dilute acids
- **PA** (Polyamide) for use in oil, gasoline (petrol) and brake fluid

The standard termination is a PVC cable with a cross section of 0.14 mm² and a length of 500 mm. The cable can be modified on request.

MATERIALS

| PA version | | | | |
|----------------------|---|--|--|--|
| Stem, nut | Polyamide black | | | |
| Float | Polyamide black | | | |
| Seal | Nitrile rubber | | | |
| | | | | |
| PP version | | | | |
| PP version Stem, nut | Polypropylene white | | | |
| | Polypropylene white Polypropylene white | | | |

MOVEMENT DIRECTION



VERSIONS & DIMENSIONS

All dimensions in mm [inch]

Standard

- · Mounting from inside, thread M16 x 2.0
- Insertion hole: ø 16.5 mm
- · Sealing from inside with O-ring.

83.0±1.50 | 3.36±0.059| 55.8±0.7 | 0.315| M16 x 2.0 | 0.215±0.3 | 0.846±0.012| (0.846±0.012) (0.846±0.012) (0.846±0.012) (0.9500) (0.9

DL Type

- Mounting from outside, thread M16 x 2.0
- Insertion hole: ø 22 mm 24mm
- 12 mm wide sealing, suitable for low filling pressure
- · Wall thickness max. 5 mm

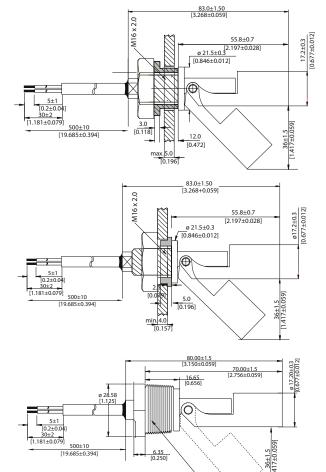
DK Type

- Mounting from outside, thread M16 x 2.0
- Insertion hole: ø 22 mm
- 5 mm narrow sealing, suitable for high filling pressure
- · Wall thickness min. 4 mm

Insertion

GZ Type

- Mounting from outside, tapered thread 1/2" (no sealing necessary)
- · Insertion hole: 1/2" thread



Thread \
1/2" 14 NPT Tapered

CONTACT DATA

| All Data at 20° C | Switch Model → Contact Form → | | | Switch 85 Form A | | | | |
|---------------------------------------|---|--------------------|-----|---------------------|------------------|------|------|-------|
| Contact Ratings | Conditions | Min. | | Max. | Min. | Тур. | Мах. | Units |
| Switching Power | Any DC combination of V & A not to exceed their individual max.'s | | | 10 | | | 100 | W |
| Switching Voltage | DC or peak AC | | | 200 | | | 1000 | V |
| Switching Current | DC or peak AC | | | 0.5 | | | 1.0 | Α |
| Carry Current | DC or peak AC | | | 1.25 | | | 2.5 | Α |
| Static Contact Resistance | w/ 0.5 V & 10 mA | | | 150 | | | 150 | mΩ |
| Dynamic Contact Resistance | Measured w/ 0.5 V & 50 mA , 1.5 ms after closure | | | 200 | | | 200 | mΩ |
| Insulation Resistance across Contacts | 100 volts applied | 10 ¹⁰ * | | | 10 ¹¹ | | | Ω |
| Breakdown Voltage across Contact | Voltage applied for 60 sec. min. | 225 * | | | 700 | | | VDC |
| Operation Time incl. Bounce | Measured w/ 50 % overdrive | | | 0.5 | | | 1.0 | ms |
| Release Time | Measured w/ no coil suppression | | | 0.1 | | | 0.1 | ms |
| Capacitance | at 10 kHz cross contact | | 0.2 | | | 0.7 | | pF |
| Environmental Data | | | | | | | | |
| Shock Resistance | 1/2 sinus wave duration 11 ms | | | 50 | | | 50 | g |
| Vibration Resistance | From 10 - 2000 Hz | | | 20 | | | 20 | g |
| Ambient Temperature | 10°C/ minute max. allowable | -20 | | 90 | -20 | | 130 | ∘c |
| Stock Temperature | 10°C/ minute max. allowable | -20 | | 100 | -55 | | 130 | °C |
| Soldering Temperature | 5 sec. dwell | | | 260 | | | 260 | °C |

Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.

^{*} Insulation resistance of 10¹² and breakdown voltage of 480 VDC is available. These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.

ORDER INFORMATION

| Series | Version | Contact Form | Switch Model | Material | Cable Length (mm) | Termination |
|----------------------------------|------------|-----------------|-----------------|----------|----------------------|-------------|
| LS03 - | | XX | XX - | XX - | xxx | Х |
| | (Standard) | 1 Form A | 66, 85 | PA, PP | 500 * | W |
| | / DL - | | 66, 85 | | | |
| Option | / DK - | | 66, 85 | | | |
| | / GZ - | | 66, 85 | | | |
| * Other cable lengths available. | | | | | | |

Part Number Example

LS03/DL - 1A66 - PA - 500 W

DL is the version

1A is the contact form

66 is the switch model

PA is the material

500 is the cable length (mm)

W is the termination

TERMINATION

For wire and termination details please contact factory.

| W | The cable cut length includes: 5 mm of wire stripped and tinned |
|---|---|
|---|---|

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