

DESCRIPTION

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

Two versions 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.

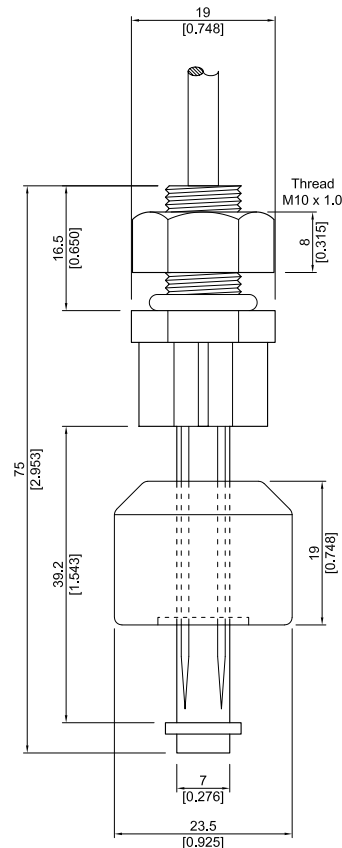


APPLICATIONS

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

DIMENSIONS

All dimensions in mm [inches]



FEATURES

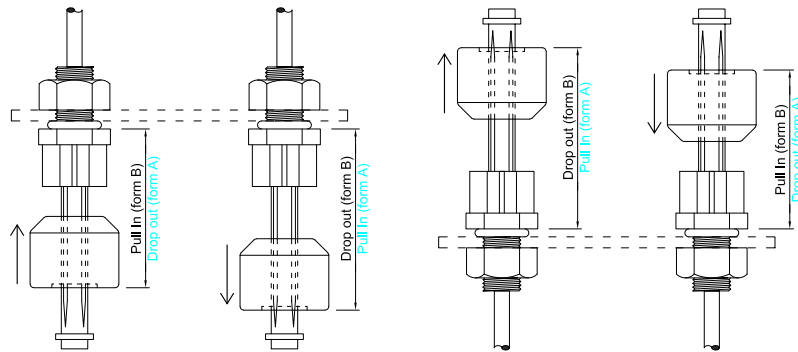
- High power switches available
- Other cables, connectors and colors available
- Form A (normally open) and Form B (normally closed) types are available
- IP 68 (only to screw thread)

MATERIALS

| Materials PA version | |
|-----------------------------|---------------------|
| Shaft, nut | Polyamide black |
| Float | Polyamide black |
| Seal | Nitrile rubber |
| Materials PP version | |
| Shaft, nut | Polypropylene black |
| Float | Polypropylene black |
| Seal | Nitrile rubber |

**Level Sensors with
Magnetic Floats**

MOVEMENT



ORDER INFORMATION

| SERIES | CONTACT FORM | SWITCH MODEL | MATERIAL | CABLE LENGTH (mm) | TERMINATION |
|---------|----------------------|--------------|----------|-------------------|-------------|
| LS02 - | XX | XX - | XX - | XXX | X |
| OPTIONS | 1 Form A 1 Form B | 66, 84 | PA, PP | 500 * | W, X, Y |

* Other cable lengths available.

Part Number Example

LS02 - 1A66 - PA - 500 W

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 consult factory.

| | | |
|---|--|---------------------------------------------------------------------------------------------------|
| W | | The cable cut length includes: 30 mm of separated wire with 5mm of wire stripped and tinned |
| X | | The cable cut length includes: 30 mm of separated wire with individual crimped terminals |
| Y | | The cable cut length includes: 30 mm of separated wire with individual spade terminals |

CONTACT DATA

| All data 20 °C | Switch Model → Contact Form → | Switch 66 Form A / B | | | Switch 84 Form A / B | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------|------|------|-------------------------|------|------|-------|
| Contact Ratings | Conditions | Min. | Typ. | Max. | Min. | Typ. | Max. | Units |
| Switching Power | Any DC combination of V & A not to exceed their individual max.'s | | | 10 | | | 10 | W |
| Switching Voltage | DC or peak AC | | | 200 | | | 400 | V |
| Switching Current | DC or peak AC | | | 0.5 | | | 0.5 | A |
| Carry Current | DC or peak AC | | | 1.25 | | | 1.0 | A |
| Static Contact Resistance | w/ 0.5V & 10mA | | | 150 | | | 150 | mΩ |
| Dynamic Contact Resistance | Measured w/ 0.5V & 50mA 1.5 ms after closure | | | 200 | | | 200 | mΩ |
| Insulation Resistance across Contacts | 100 Volts applied | 10 ¹⁰ * | | | 10 ¹¹ | | | Ω |
| Breakdown Voltage across Contacts | Voltage applied for 60 sec. min. | 225 * | | | 700 | | | VDC |
| Operate Time, incl. Bounce | Measured w/ 50% overdrive | | | 0.5 | | | 2.0 | ms |
| Release Time | Measured w/ no coil suppression | | | 0.1 | | | 0.1 | ms |
| Capacitance | @ 10kHz across contact | | 0.2 | | | 0.7 | | pF |
| Environmental Data | | | | | | | | |
| Shock Resistance | 1/2 sine wave duration 11ms | | | 50 | | | 50 | g |
| Vibration Resistance | From 10 - 2000 Hz | | | 20 | | | 20 | g |
| Ambient Temperature | 10 °C/ minute max .allowable | -20 | | 90 | -20 | | 90 | °C |
| Storage Temperature | 10 °C/ minute max. allowable | -20 | | 100 | -20 | | 100 | °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 10 ¹² 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. | | | | | | | | |



Products for tomorrow

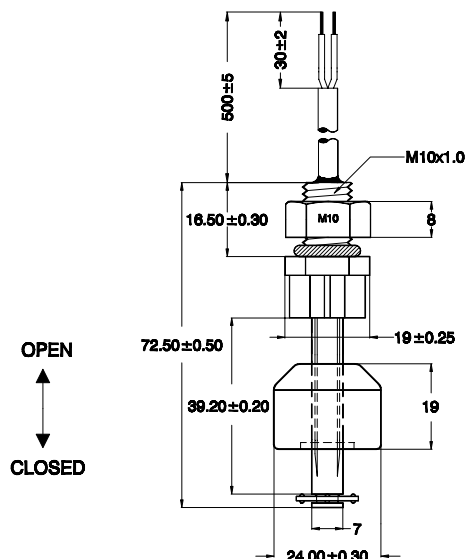
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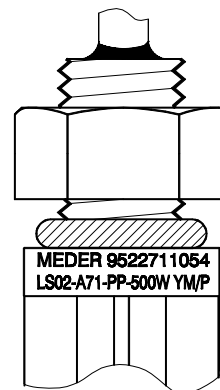
Level Sensor: LS02-1A71-PP-500W

Part Number: 9522711054

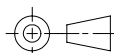
Dimensions (mm)(unspecified tolerances $\pm 0,1\text{mm}$)



Marking



MEDER-Label Art.Nr. Type
 Production-Code-EN60062/Factory Code



| Contact Data 71 (Form A/Dry) | | Min. | Typ. | Max. | Units |
|-------------------------------------|--------------------------------------------------------------------------------------------|-----------|------|------|-------|
| Contact Rating | Any combination of the switching voltage and current must not exceed the given rated power | | | 10 | W |
| Switching Voltage | DC or Peak AC | | | 200 | V |
| Switching Current | DC or Peak AC | | | 0,5 | A |
| Carry Current | DC or Peak AC | | | 1,0 | A |
| Static Contact Resistance (initial) | Measured with 40% overdrive | | | 150 | mΩ |
| Insulation Resistance | RH 45% | 10^{12} | | | Ω |
| Breakdown Voltage | | 240 | | | VDC |
| Operate Time, including Bounce | Measured with 40% overdrive | | | 0,5 | ms |
| Release Time | | | | 0,1 | ms |
| Capacitance | | | 0,3 | | pF |

| Material | |
|-------------|---------------------|
| stem | Polypropylene white |
| nut | Polypropylene white |
| float | Polypropylene white |
| lock washer | Polypropylene white |
| O-ring | nitril caoutchouc |

| Environmental Data | | | | | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----|-------------|-----|----|
| Shock | ½ sine wave, duration 11ms | | | 50 | g |
| Vibration | from 10 - 2000 Hz | | | 20 | g |
| Operating Temperature | 10°C/min max. allowable | -20 | | 80 | °C |
| Storage Temperature | 10°C/min max. allowable | -20 | | 80 | °C |
| Contact Resistance with Cable | Measured with 40% overdrive | | | 200 | mΩ |
| Sealing Compound | | | Epoxy resin | | |
| Cable | Round cable LIYY 2 x 0,14 mm ² , grey, colour of wire: white and brown Ends of cable with 5±1 mm tinned leads | | | | |
| Connection | M10 x 1,0 | | | | |
| Float specific density | approx. 0,7 g / cm ³ | | | | |
| Remarks | Float down = Contact closed; Float over = Contact open | | | | |