

# BSM 501 - BSM 515

## Level switch



### CAUTION

Do not mount or store the switch near strong magnetic fields or ferromagnetic parts such as steel bars, frames or parts of steel tanks.

Use only drawn, seamless tubing in order to prevent loss of magnetic strength (welded stainless steel tubing is magnetic).

Any ferromagnetic should be at a minimal distance of 10 cm.

**Do not use any external magnets, not even for testing.**



Set magnet rocker to correct position before service by moving the float or counter weight inside its guiding tube.

## INSTRUCTION MANUAL

**BAMO MESURES**

22, Rue de la Voie des Bans - Z.I. de la Gare - 95100 ARGENTEUIL

Tél : (+33) 01 30 25 83 20 - Web : [www.bamo.fr](http://www.bamo.fr)

Fax : (+33) 01 34 10 16 05 - E-mail : [info@bamo.fr](mailto:info@bamo.fr)

Level switch  
**BSM 501 - BSM 515**

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**MES**

**585-01/1**

## Safety Precautions

- Assembly, commissioning and servicing may only be performed by specialist personnel!  
Applicable European and national regulations for erection of electric systems must be complied with.
- Connect the device only to voltage indicated in the technical data and on the nameplate.
- In case of assembly or maintenance work, the device must be disconnected from all currents!
- Operate the device only under the conditions defined in the operating instructions!

## 1 - PRINCIPLE

The magnetic floats or counter-weights drive a lever arm to establish a dry contact, operating on a micro-switch. When the actuator passes in front of the switch it changes the status and stay on until the float passes again.

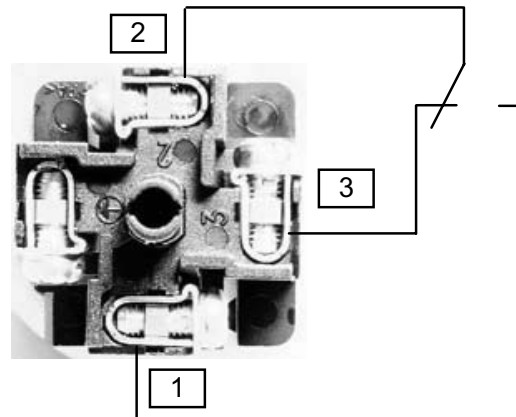
The level switch BSM 501 is working with all our floats and counter-weights designed for standard tube of diameter 32, 35 or 63 mm. The model BSM 515 is specifically designed for use with our by pass level indicator MAGTOP in stainless steel; not convenient for plastic or carbon steel MAGTOP

## 2 - MOUNTING

- The level switch BSM 501 fits directly the guiding tube of a level indicator with a collar or in stainless steel or in plastic.
- Take care of its position on the tube to allow the easiest electrical wiring operation.
- The cable plug must always point down. The BSM 501 could be fixed all along the float operating way.
- Open the Din plug to connect the cable.
- Terminals are 3; the status NO or NC of the contact depends of the wiring, please see the drawing and consult the notes below.
- Let the cable passes through the pressure gland.
- Remount the Din plug, screwing tightly to assure the waterproof protection.

### Notes

- To have a contact when the level is increasing, connect the terminals 1 and 2 (Normally Open).
- To have a contact when the level is decreasing, connect the terminals 2 and 3 (Normally Close).
- When using a SFA, cable and pulley operated level indicator, use the reverse logic as the counterweight is going down when the level is increasing.
- Always install the float with "TOP" sign upside.



**Connection:** Contact position while float is in lower position

**Set magnet rocker to correct position before service  
by moving the float or counter weight inside its guiding tube.**

## 3 - TECHNICAL FEATURES

|                           |  |
|---------------------------|--|
| Rated voltage:            | 4 V...250 V AC, 4 V...30 V DC  |
| Rated current:            | 1 mA ... 3 A (AC or DC)  |
| Switching principle:      | Magnetic actuated micro switch with change over contact                        |
| Minimal distance:         | 40 mm between two switching points   |
| Max. cable cross section: | 1.5 mm <sup>2</sup>  |
| Connector:                | 3 poles cable plug acc. DIN EN 175301 with Pg terminal                         |
| Ambient temperature:      | -20°C ... +90°C  |
| Material:                 | Transparent polycarbonate  |
| Fitting:                  | Stainless steel or plastic collar  |
| Housing:                  | IP 65 acc. EN 60 529   |
| CE labels:                | In accordance with low Voltage Guidelines 72/73/EEC, EMV Guidelines 89/336/EEC |

