

Installation and Operating Instructions for Float Switch MTS

WG 44/11.09/

Original operating manual E-MBA 126b

Float Switches MTS are suitable for detecting the levels of liquids in vessels.

The float switches are only designed for commercial and industrial use.

Do not use them in inflammable or explosive fluids.

In order to guarantee reliable operation, operational safety and a long lifetime, the following must be observed:

1. Electrical Safety

The float switch may be connected only by a qualified electrician, technician or engineer!

The float switches may be used with or without an electronic controller.

Types MTS.../PG-...

Float switches without terminal housings cannot be opened.

Types MTS.../LC-...

The mounting wrench SL (accessory) is used for opening and closing the terminal casing LC. Take care that the pull-relief, the pressure screw and the cover are tightened securely. Tighten the terminal casing cover until the cover makes a positive connection with the cable gland. This ensures optimum sealing of the casing.

Types MTS.../BK-...

The terminal casing BC is opened and closed with the mounting wrench (SB). Ensure that the pull relief, the pressure screw for the cable gland and the cover screws are correctly tightened upon assembly. Tighten the terminal casing cover until the cover makes a positive connection with the cable gland. This ensures optimum sealing of the casing.

If you install your own cables, you must remove the white plastic insert below the pull-relief clamp when installing cables with a diameter of >8 mm (maximum cable diameter: 9.5 mm).

The sealing insert for the cable gland must be selected from the following table. If replacement inserts are needed, they can be ordered as accessories.

Cable entry	Cable- [mm]	Sealing insert Colour	Article number (accessory)
Terminal casing BC	4 – 6,5	yellow	1702200001
	6,5 – 9,5	black	1702500001
Terminal casing LC	4 – 6,5	yellow	4921000053
	6,5 – 9,5	black	4921000050

2. Operating Conditions

Application: in liquids with a density of at least 0.7 g/cm³.

Check that the material of the float switch is chemically and thermally resistant to the liquid to be monitored.

Suitable for use with restrictions in liquids which tend to form deposits or to crystallize.

The terminal casing and the lead should not come into direct contact with the liquid or hot steam.

3. Principle of Operation

When the float hits the bottom stop, a contact is opened and/or closed.

In the version with two contacts, a contact is actuated at the top/bottom stop.

On Types MTSu... and MTS2u..., the switching height and/or the lower switching point can be adjusted continuously after loosening the adjusting screw on the bracket.

4. Operating and Maintenance

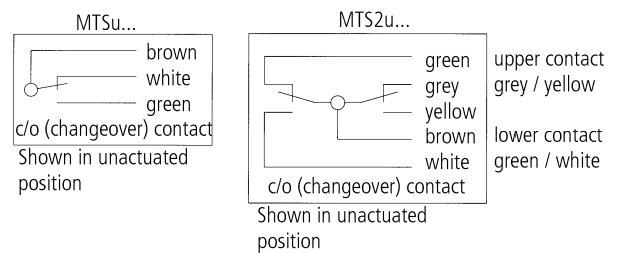
Float switches are safety devices and should therefore be tested by the user for correct operation before they are used, and at suitable intervals during use. This check should include ensuring that they fulfil their intended purpose (e.g. dry-running protection for heaters).

Strong magnetic fields may give rise to malfunctions.

Any deposits on the probes must be removed at regular intervals.

Ensure that the float can always move freely.

5. Connection Diagrams

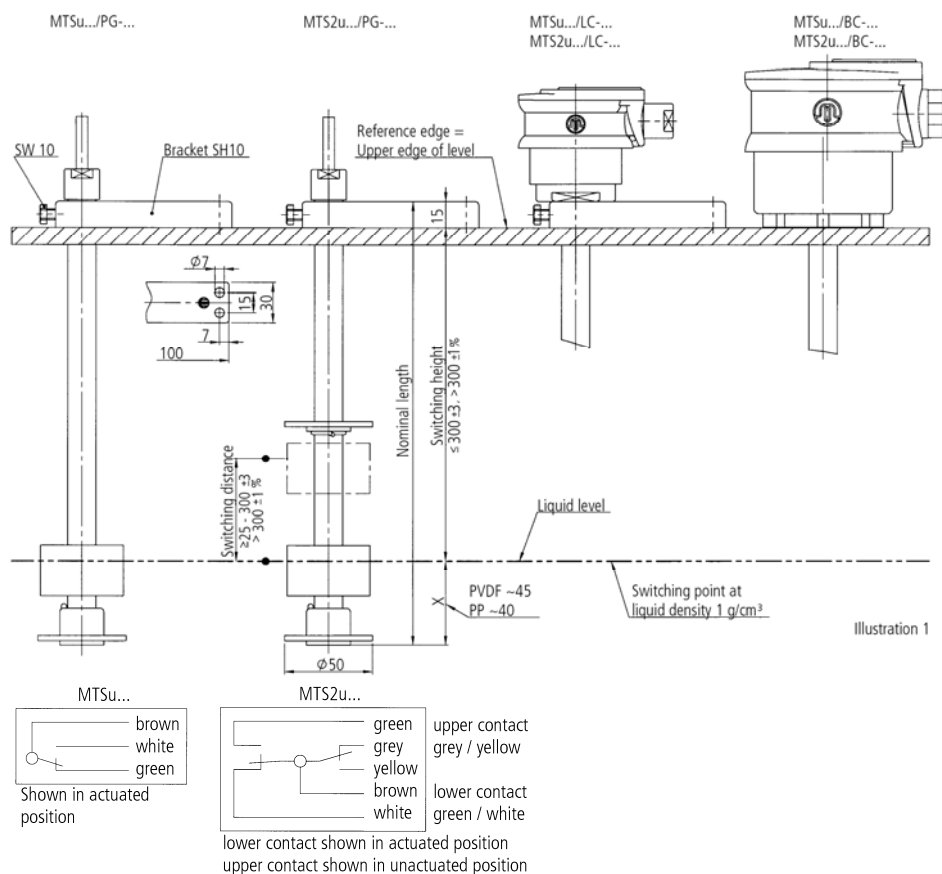


6. Technical Data

Type	MTSu .../PG-... MTSu .../LC-... MTSu .../BC-...	MTS2u .../PG-... MTS2u .../LC-... MTS2u .../BC-...
Rated voltage	max. 250 V ~ (AC) / 0.13 A	
Current switching capacity	max. 1 A / 30 V	
Power switching capacity	max. 30 W / 60 VA	
Switching delay	none	
Switching hysteresis	5 mm	
Contact type	1 changeover contact	2 changeover contacts
Enclosure type	BC / LC: water-jet proof IP 65 PG: splashproof IP 64	
Max. operating temperature for PP (polypropylene)	Code F 90 °C	
Max. operating temperature for PVDF (fluoride plastic)	Code L 100 °C	

7. Installation Rules

The float switches must be installed vertically and mounted so that the float can move freely at all times.



8. Switching Status

see figure 1

Nonobservance of these instructions, dismantling of the units or tinkering with them will invalidate the guarantee.

If you wish to make a claim under the warranty or required repairs, return the **cleaned** and **neutralized** float switch to the manufacturer postage paid with details of the defect.

These installation instructions form an integral part of the device and must be kept available throughout the service life of the device.

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