

Installation and Operating Instructions for Float Switches MTS3 with Separate Changeover Contacts

WG 44/12.09/

Original operating manual E-MBA 364d

Float switches MTS serve to monitor the levels of liquids in tanks.

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

Do not use them in inflammable or explosive fluids.

In order to ensure correct operation, reliability and a long operating lifetime, the following must be observed.

1. Electrical Safety

The switches may be connected only by a trained and qualified electrician!

The liquid level can be controlled with the aid of the float switch with or without an electronic controller.

Types MTS.../PG-...

Float switches without terminal housings cannot be opened.

Types MTS3.../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 MTS3.../BC-...

The terminal housing BC is opened by unscrewing the cover with the mounting wrench SB (accessory). When closing the cover, take care that the cable pull-relief 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.

2. Ambient Conditions

Intended use: level control of liquids with a density of at least 0.7 g/cm^3 .

The material of the float switch must withstand the expected temperatures and be unaffected by the chemicals in the liquid. It may be used with certain restrictions in liquids with a strong tendency to form encrustations or to precipitate crystalline deposits.

Do not exceed the performance data and specified operating temperature (see the Technical Data).

The terminal housing (made of PP), the cable gland and the cable may not come into direct contact with the liquid or with hot steam.

3. Principle of Operation

Contacts 1 and 2 are actuated at the lower and upper end stops, respectively.

Contact 3 is actuated only at the upper end stop.

The switching height can be adjusted after loosening the clamping screw on the holder. It can be set to any position up to the upper flange.

4. Operation and Maintenance

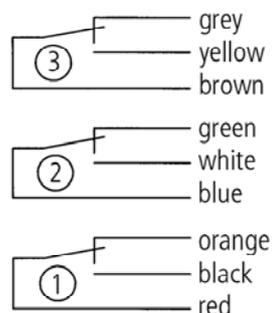
Float switches are safety devices and must therefore be inspected regularly by the user to ensure that they are functioning correctly. This inspection must include ensuring that the desired effect (such as preventing the heater from running with no liquid in the tank) is achieved.

Note that strong magnetic fields may interfere with the correct operation of the switch.

Encrustation or deposits of crystals on the float switch must be removed regularly.

Care must be taken that the float can move freely at all times.

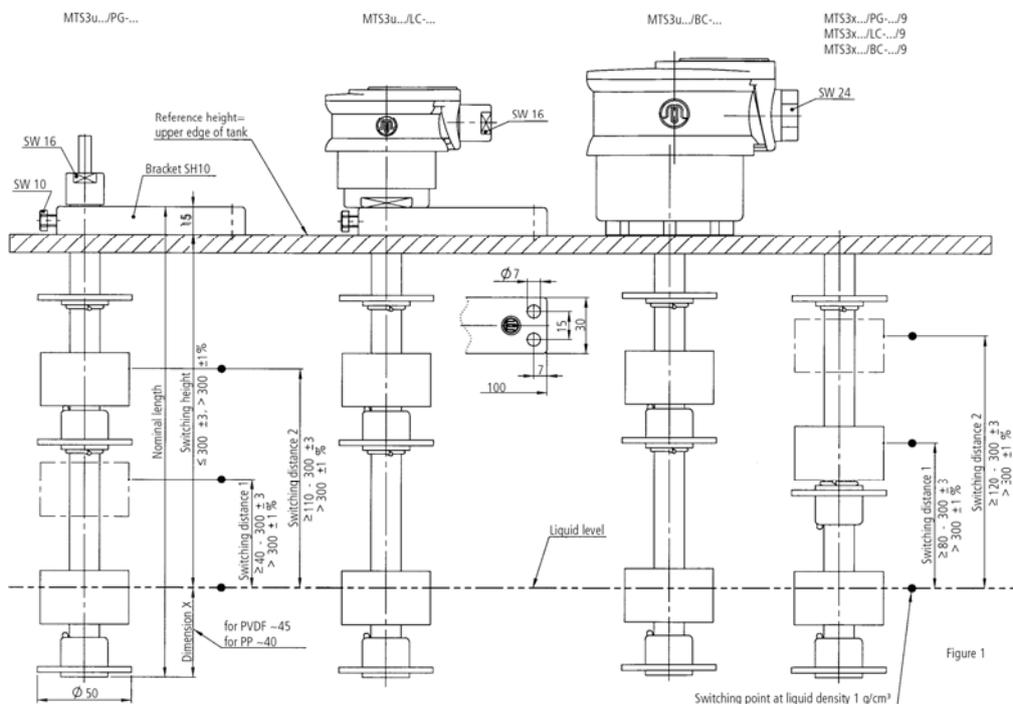
5. Connection Diagrams



Shown in unactuated position

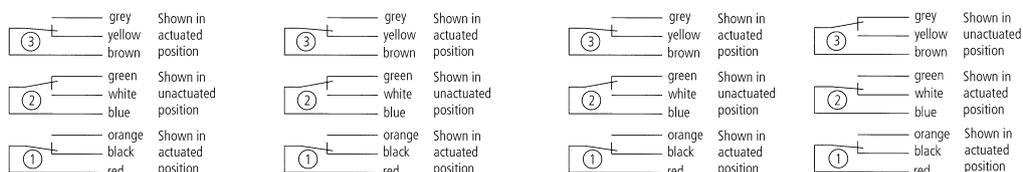
6. Installation Conditions

The float switch must be installed in a vertical position. It must be mounted such that the float can move freely at all times.



7. Switching Status

see figure 1



8. Technical Data

Type	MTS3u... MTS3x...
Rated voltage	max. 250 ~V (AC) / 0,13 A
Switched current	max. 1 A / 30 V
Switched power	max. 30 W / 60 VA
Switching delay	none
Switching hysteresis	5 mm
Contacts	3 changeover
Degree of protection	BC / LC: water-jet proof IP65 PG: splashproof IP64
Maximum operating temperature for PP (polypropylene)	code F / 90 °C
Maximum operating temperature for PVDF (polyvinylidene fluoride)	code L / 100 °C

Non-compliance with these instructions, disassembly of the switch or other manipulations will invalidate the warranty.

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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