

Operating Instructions

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► **Read these Safety Instructions before using the switch for the first time and follow the Operating instructions.**

Safety instructions

1. The installation, initial operation and maintenance should only be carried out by a qualified expert with electrical know-how.
2. Comply with the local and statutory rules and/or the VDE0100.
3. Before electrical connection, check the specifications on the technical data of this manual.
4. A fuse must be connected in series to the supply voltage, according to the Standard and Normative documents.
5. Protect the signal contacts of the limit switch against voltage peaks when inductive or capacitive loads are connected.
6. The device may be put into operation only if the electrical connection is correct.
7. Switch off the power supply, before disconnecting the device.
8. Protect the float and the cable from pointed objects.
9. Clean the device with a damp towel. Do not use any pointed objects or any aggressive chemical products.

Operating instructions

1. Specification

1.1 Intended use

The floats are to be used to control the level in the filling and emptying processes of tanks, wells and containers in which scaling non-clean or residual waters are used, with or without foam in its surface.

1.2 Function

When the level of the liquid reaches the level of the float switch, the float changes its position an angle, the counterweight inside its deviated and activates a micro switch due to this deviation. When the level of the liquid overreaches the level of the float switch, the float remains in its position in the water due to the counterweight, makes a strenght to the cable that allow the installation of more floats without rolling their cables and reduces the waste's adhesion.

It is necessary to install 2 devices to control of the maximum and the minimum levels automatically.

1.3 Technical data

Manufacturer	Talleres Filsa, S.A.U.
Address	Bernat Metge, 33 08100 Mollet del Vallès (Barcelona)
Name	Float switch
Type	TM-E ...
Density of the product	0.95 kg/l ... 1.10 kg/l
Maximum pressure	+4 bar
Switching voltage	250 V AC
Switching function	1 NA + 1 NC
Capacity of the contact	10 A / 250 V AC (for resistive loads)

For inductive or capacitive loads, reduce at 50%

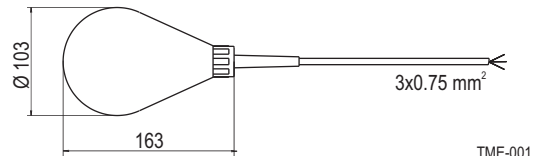
Ambient temperature	0 °C ... +60 °C
Protection	IP68 according DIN EN60529
Float weight	0.79 kg
Cable length	06 6 m cable ref: 2504-E 10 10 m cable ref: 2504-0-10E 15 15 m cable ref: 2504-0-15E 20 20 m cable ref: 2504-0-20E 30 30 m cable ref: 2504-0-30E

1.4 Materials

Float	Polypropylene
Cable	Double isolation PVC
Compression gland	EPDM

1.5 Dimensions

Approximate measures are given in mm.



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2. Installation

2.1 Preparing for use

- Take the float out the packaging box.
- Read the Safety Instructions and the Operating Instructions before using the controller.

2.2 Mechanical connection

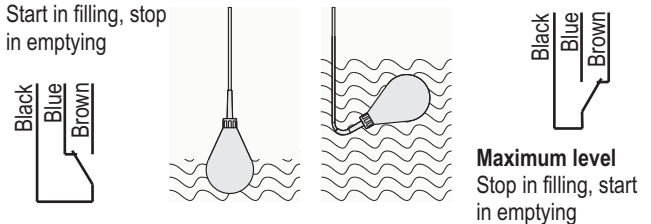
It is simple: the switch literally hangs on its own cable at the desired height and is fixed to the ceiling or to one side of the tank.

2.3 Electrical connection

Connection diagram

Minimum level

Start in filling, stop in emptying

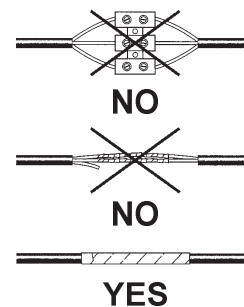


Maximum level
Stop in filling, start in emptying

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Cable connections

Connections must be safe and water-tight. The connections should be out of the tank.



TME-006

3. Use

3.1 Commissioning

- Put the float switch into operation only if the installation and the electrical connection have been done correctly.
- Place the counterweight following the instructions above.

3.2 Normal operation

- Use the float switch in its intended application only.
- Comply with the specifications on the data plate and the technical data of this manual.
- If the float is damaged, disconnect it immediately.
- It is forbidden to make changes to the device. This violates the Normative.

3.3 Inexpert handling

- Ignoring the Safety instructions and the Operating instructions.
- Not intended use.
- Making changes or handling the float switch.
- Violation against applicable Law and Standards.
- Using of non original parts.

4. Maintenance, servicing and spare parts

4.1 Maintenance

- If used correctly, no specific maintenance is required.

4.2 Servicing

- Check and review the state of the float, cable and the correct commutation of the electric contact, as well.

4.3 Spare parts

- Use only original spare parts.

5. Storage

- Store the float switch in a dry and dust-free environment.
- Protect the float and the cable from pointed objects.

6. Disposal

- Switch off the power supply, before disconnecting the device.
- The float switch can be recycled.
- The disposal applies to the valid environmental Guidelines according to the location of the carrier and the local manufacturing conditions.

FILSA constantly strives to improve its products and reserves the right to modify designs, materials and data without prior notice.

Keep this manual for further questions!