



Brief Operating Instructions Soliswitch FTE31

Point level switch



These Brief Operating Instructions are not a substitute for the Operating Instructions pertaining to the device. Detailed information can be found in the Operating Instructions and the additional documentation.

Available for all device versions via:

- Internet: www.endress.com/deviceviewer
- Smartphone/tablet: Endress+Hauser Operations app

Basic safety instructions

Requirements for the personnel

The personnel must fulfill the following requirements for its tasks:

- ▶ Trained, qualified specialists must have a relevant qualification for this specific function and task.
- ▶ Are authorized by the plant owner/operator.
- ▶ Are familiar with federal/national regulations.
- ▶ Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application).
- ▶ Follow instructions and comply with basic conditions.

Intended use

- The device is a point level switch for specified bulk solids.
- The device is designed for mounting in the field.
- Safe operation is only guaranteed if the Operating Instructions are observed.
- Only operate the device in the permitted temperature range.

Product liability: The manufacturer does not accept any responsibility for damage that results from non-designated use and from failure to comply with the instructions in this manual.

Mounting

Mounting requirements

Additional equipment

Hinged rotary paddle (optional or can be ordered as an accessory)
The paddle is hinged for easier installation of the device using an installation coupling. Because it is spring loaded, the paddle opens again automatically inside the silo. Removal of the device is always possible. The hinged paddle can be mounted in both the solid shaft and rope extended versions.

 The FTE31 can only be installed vertically for a shaft length < 300 mm (11.8 in).

Ambient temperature

-20 to +60 °C (-4 to +140 °F)

Storage temperature

-20 to +60 °C (-4 to +140 °F)

Altitude

Workplace safety

When working on and with the device:

- ▶ Wear the required personal protective equipment as per national regulations.

Operational safety

Damage to the device!

- ▶ Operate the device in proper technical condition and fail-safe condition only.
- ▶ The operator is responsible for the interference-free operation of the device.

Product safety

This measuring device is designed in accordance with good engineering practice to meet state-of-the-art safety requirements, has been tested, and left the factory in a condition in which it is safe to operate.

It meets general safety standards and legal requirements. It also complies with the EU directives listed in the device-specific EU Declaration of Conformity. The manufacturer confirms this by affixing the CE mark to the device.

Up to 2 000 m (6 560 ft) above sea level.

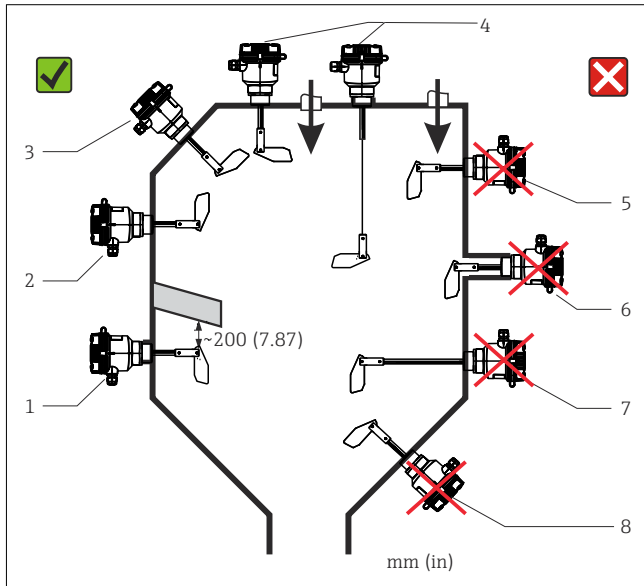
Degree of protection

IP 65 with closed cover

Pollution degree

Pollution degree 2

Mounting location



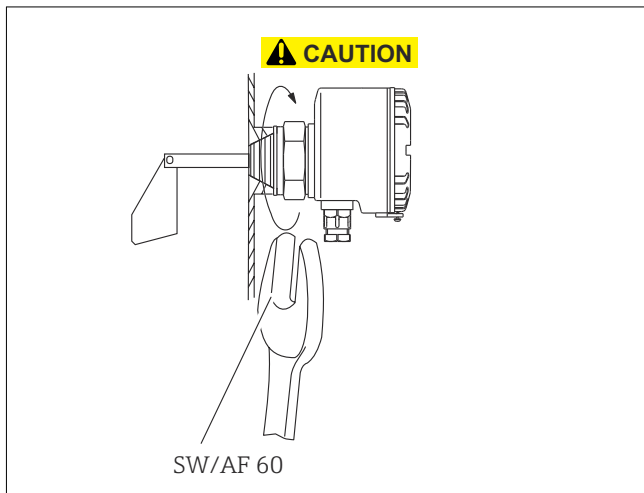
1 Correct and incorrect orientation of the device

- 1 From the side with protective cover against falling solids
- 2 From the side
- 3 Angled from the top
- 4 Vertical from the top
- 5 In direction of solids flow
- 6 Installation coupling too long
- 7 Horizontal with shaft length > 300 mm (11,8 in)
- 8 Angled from the bottom

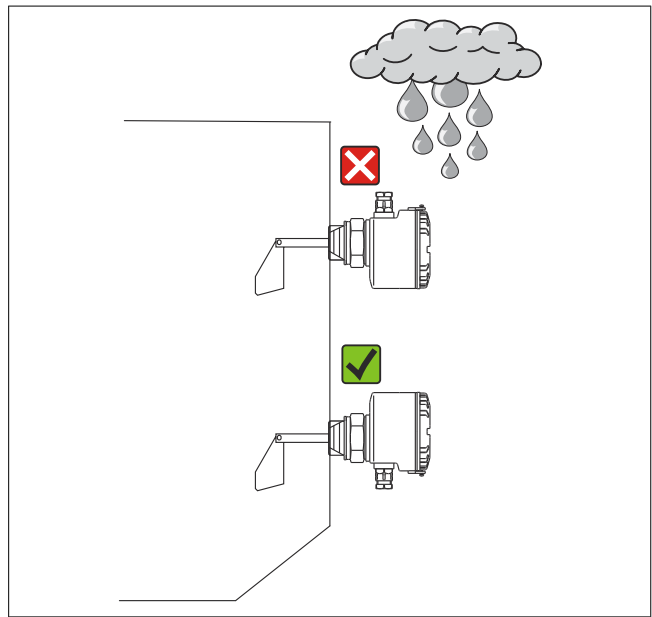
NOTICE

The device can be damaged if handled incorrectly during installation

- ▶ Do not turn the housing to tighten the process connection. Once the process connection has been tightened, the housing can be aligned so that the cable entries point downwards.



2 Mounting the device



3 Turning the housing to the right position

Special mounting instructions

Side load on the shaft
Max. 60 N

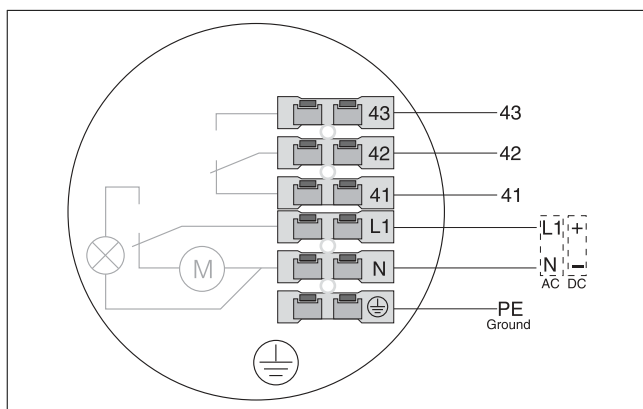
Load on the rope
Max. 1500 N

Mechanical load of optional signal lamp
The optional signal lamp must be protected against mechanical stress (impact energy > 1 J).

Electrical connection

Connecting requirements

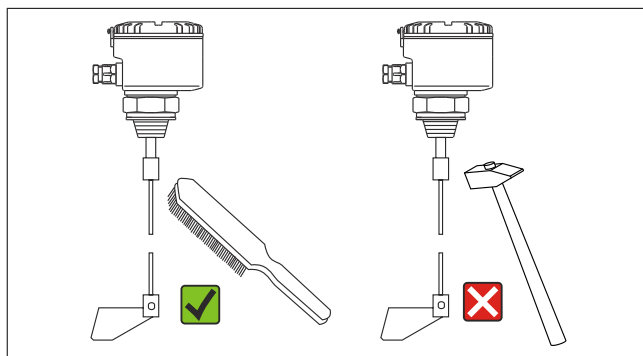
Terminal assignment



4 Terminal assignment of the point level switch

Symbol	Description
⊕	Protective ground
N	Power connection: N (AC), - (DC)
L1	Power connection: L1 (AC), + (DC)
41	Normally closed contact
42	Changeover contact

Maintenance



5 Removing caking

Name and address of manufacturer

Name of manufacturer:	Endress+Hauser Wetzer GmbH + Co. KG
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Symbol	Description
43	Normally open contact

Supply voltage

- 20 to 28 V_{DC}, I_{max} = 66 mA
- 24 V_{AC} ±10%, 50/60 Hz, max. 4.5 VA
- 48 V_{AC} ±10%, 50/60 Hz, max. 4.5 VA
- 115 V_{AC} ±10%, 50/60 Hz, max. 4.5 VA
- 230 V_{AC} ±10%, 50/60 Hz, max. 4.5 VA

Power consumption

AC	P < 4.5 VA
DC	P < 3.5 W

Current consumption

DC	I _{max} ≤ 66 mA
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Cable entries

Mounted transition piece from a PG 13.5 threaded hole to a NPT 1/2" threaded hole

Terminals

- Plug-in terminal 2.5 mm² (14 AWG), solid
- 1.5 mm² (16 AWG) strand with end ferrule

Cleaning

A clean, dry cloth can be used to clean the device.
