



## Instructions in accordance with directive 2014/34/EU

IBExU 15 ATEX 1080 X

### Overfill prevention sensor testing device type ME 6 ...

Edition: 12.2019

#### I Range of application

The purpose of the overfill prevention sensor testing device type ME 6 ... is to test the function of overfill prevention sensors by means of the PTC resistor principle. The overfill prevention sensor may be in Zone 0 during testing, but the overfill prevention sensor testing device may only be operated outside the potentially explosive area.

#### II Standards

The OPS testing device is designed in accordance with the following European standards

EN IEC 60079-0:2018	Equipment – General requirements
EN 60079-11:2012	Equipment protection by intrinsic safety "i"

#### III Instructions for safe ...

##### III.a ... use

The overfill prevention sensor testing device acts as associated equipment and is not approved for use in potentially explosive areas. The intrinsically safe sensor circuit can be brought into Zone 0 and is suitable for all gas groups (IIA, IIB and IIC).

Because of the construction of the socket couplers the connection of the overfill prevention sensor must be in Zone 1 or in a less hazardous area. The socket coupler type 903 and the CEE socket coupler are classified as simple electrical equipment. The socket coupler type AS 903 is also marked and is suitable for use in Zone 1 or a less hazardous area.

If the connection of the overfill prevention sensor is in potentially explosive areas with gases in temperature class T5 or T6\*, the overfill prevention sensor testing device with product identification type ME 6 P and the socket coupler type AS 903 may not be used.

The approval applies to equipment types

ME 6	OPS testing device without product identification (with socket coupler type 903)
ME 6 F	OPS testing device for LPG overfill prevention sensors (with CEE socket coupler)
ME 6 P	OPS testing device with product identification (with socket coupler type AS 903)

##### III.b ... assembling and dismantling

The overfill prevention sensor testing device may only be assembled or dismantled when no overfill prevention sensor is connected!

Only the battery compartment may be opened. Opening the case is not allowed as this could be damaged and the approval would therefore be void.

##### III.c ... installation

No installation is necessary to operate the overfill prevention sensor testing device.

##### III.d ... adjustment

No Ex-related arrangements are necessary to operate the overfill prevention sensor testing device.

##### III.e ... putting into service

The overfill prevention sensor testing device may only be connected to an overfill prevention sensor if nothing is connected to the USB port.

The overfill prevention sensor may be connected and disconnected while the overfill prevention sensor testing device is in operation.

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\* Overfill prevention sensor testing devices using the PTC resistor principle are certified to T3, maximum T4






### III.f ... maintenance (servicing and emergency repair)

The overflow prevention sensor testing device is normally maintenance-free. In the event of a defect, the device must be sent back to the manufacturer or one of its agencies.

The overflow prevention sensor testing device may only be charged via a USB connection if no overflow prevention sensor is connected.

When replacing the accumulators, only Ni-MH cells of type AA may be used.

### IV Equipment marking

1	Manufacturer:	FAFNIR GmbH, 22525 Hamburg
2	Type designation:	ME 6 ...
3	Certificate number:	IBExU 15 ATEX 1080 X
4	Ex marking:	
	OPS testing device type ME 6 ...:	 II (1) G [Ex ia Ga] IIC
	Socket coupler type AS 903:	 II 2 G Ex ia IIC T4 Gb
5	CE marking:	 0044
6	Technical data:	$T_a \leq +50 \text{ }^\circ\text{C}$ $U_o \leq 21.4 \text{ V}$ $I_o \leq 137 \text{ mA}$ $P_o \leq 732 \text{ mW}$ $L_i \leq 10 \text{ } \mu\text{H}$ $C_i \leq 2 \text{ nF}$ $L_o \leq 490 \text{ } \mu\text{H}$ $C_o \leq 98 \text{ nF}$

### V Technical data

To charge the batteries (secondary cells), the overflow prevention sensor testing device is suitable for connection to a USB interface (5 V).

The electric circuit of the sensor is designed with "intrinsic safety" (ia) ignition protection class with a linear output characteristic. The safety-relevant data are as follows:

Output voltage	$U_o \leq 21,4 \text{ V}$
Output current	$I_o \leq 137 \text{ mA}$
Output power	$P_o \leq 732 \text{ mW}$
Internal, externally effective inductance	$L_i \leq 10 \text{ } \mu\text{H}$
Internal, externally effective capacitance	$C_i \leq 2 \text{ nF}$
Permissible external inductance	$L_o \leq 490 \text{ } \mu\text{H}$
Permissible external inductance	$C_o \leq 98 \text{ nF}$

The overflow prevention sensor testing device can be used in the following ambient temperature range:

Ambient temperature range	$T_a = -20 \text{ }^\circ\text{C} \dots +50 \text{ }^\circ\text{C}$
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The overflow prevention sensor testing device has a degree of protection provided by enclosure of:

Degree of protection provided by enclosure	IP30
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### VI Special conditions of use

1. It is not permitted to connect simultaneously the overflow prevention sensor at sensor connector and the auxiliary energy at USB connector.
2. If the connector of the overflow prevention sensor is located in a potentially explosive atmosphere of gases with a temperature class T5 or T6, the type ME 6 P respectively connector type AS 903 is not permitted for use.