



Instructions in accordance with directive 2014/34/EU

TÜV 03 ATEX 2368 X

Interface Sensor type SEPARIX-C ...

Edition: 03.2018

I Range of application

The interface sensor is used as part of a monitoring system for oil/water separators and serves for the detection of an interface between water and light liquids. When the layer thickness of the light liquid reaches the switching point of the sensor, an alarm signal is produced via the associated measuring transducer.

II Standards

The interface sensor is designed in accordance with the following European standards

- EN 60079-0:2012 + A11:2013 Equipment – General requirements
- EN 60079-11:2012 Equipment protection by intrinsic safety "i"

III Instructions for safe ...

III.a ... use

The interface sensor is designed as intrinsically safe apparatus and is approved for use in potentially explosive areas. The sensor may be used for gas groups IIA and IIB.

The approval applies to the device versions

- SEPARIX-C H Enclosure and cable protection for aggressive media
- SEPARIX-C L Plus Enclosure for non-aggressive media

III.b ... assembling and dismantling

Dismantling of the interface sensor is not provided. Dismantling would also damage the interface sensor and invalidate the approval.

III.c ... installation

All wiring operations must be carried out with the power disconnected. Special rules and regulations, including EN 60079-14 and local installation regulations, must be observed.

The interface sensor is suspended from its cable immersed in the liquid to be monitored. The sensor must be installed so that the switching point is (below the liquid surface) at the level at which the alarm is to be signalled as soon as any light liquid occurs there.

The interface sensor version 1 is equipped with a permanently connected blue cable (3 × 0.5 mm²). This cable can be shortened or lengthened. For cable extensions, a suitable junction box for the respective ambient conditions must be used. Version 2 is equipped with an M12 connector.

When wiring the interface sensor to the measuring transducer (preferably blue coloured cable), the permissible inductance and capacitance must not be exceeded. The connection to the measuring transducer must be proceeded in accordance to the measuring transducer instructions.

Version 1		Version 2		
Colour	Wire	Pin	Wire	M12 Cable (Female)
White	Power supply +	1	Power supply +	
Green	Frequency signal	2	A / Frequency signal	
Brown	Power supply -	3	Power supply -	
		4	B	

Table III.c: Terminal assignment of the sensor

The integration of the interface sensor into the equipotential bonding is not required.



III.d ... adjustment

For operating the interface sensor no Ex-relevant adjustments are required.

III.e ... putting into service

Before putting into service, all devices must be checked for correct connection and installation. The electrical supply, including the connected devices, must be checked.

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

As part of regular maintenance of the Oil/Water Separator, the interface sensor must thoroughly be cleaned using a moist cloth. Grease-dissolving cleansing agents can be used to remove any firmly clinging grease or oil residues. Sharp-edged objects are unsuitable for the purpose of cleaning since they could damage the sensor.

In case of a defect, the interface sensor must be sent back to FAFNIR or one of its representatives.

There is compliance with the requirements for the dielectric strength between the intrinsically safe circuit and the chassis of the interface sensor with 500 V_{AC} in accordance with EN 60079-11, Clause 6.3.13.

IV Equipment marking

1	Manufacturer:	FAFNIR GmbH, 22525 Hamburg		
2	Type designation:	SEPARIX-C ...		
3	Certificate number:	TÜV 03 ATEX 2368 X		
4	Ex marking:		II 1 G	Ex ia IIB T4 Ga
5	CE marking:	0044		
6	Technical data:	$U_i \leq 15 \text{ V}$	$I_i \leq 30 \text{ mA}$	$P_i \leq 100 \text{ mW}$
		$L_i < 100 \mu\text{H}$	$C_i < 10 \text{ nF}$	$T_a \leq +60 \text{ °C}$

V Technical data

The safety-related values are defined with:

Input voltage	$U_i \leq 15 \text{ V}$
Input current	$I_i \leq 30 \text{ mA}$
Input power	$P_i \leq 100 \text{ mW}$

The externally effective capacitance and inductance are:

Internal capacity	$C_i \leq 10 \text{ nF}$
Internal inductance	$L_i \leq 100 \mu\text{H}$

The interface sensor may be used in the following temperature ranges:

Ambient temperature	$-20 \text{ °C} \leq T_a \leq +60 \text{ °C}$
Medium temperature	$0 \text{ °C} \leq T_F \leq +60 \text{ °C}$

General information (see also EN 60079-0, Clause 1):

Zone 0 exists only under atmospheric conditions:	
Temperature range	$-20 \text{ °C} \dots +60 \text{ °C}$
Pressure range	0,8 bar ... 1,1 bar
Oxidants	Air (oxygen content approx. 21 %)

The interface sensor achieves a degree of protection provided by enclosure:

Degree of protection	IP68
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VI Special conditions of use

None.