

Type SE30 Ex

II 3 GD, Ex nA IIC T4 Gc and tc IIIC T135°C Dc IP6X approvals

II 3 GD, Ex nA IIC T4 Gc und tc IIIC T135°C Dc IP6X Zulassungen

Modes de protection II 3 GD, Ex nA IIC T4 Gc et tc IIIC T135°C Dc IP6X

Hall Effect flowmeter for potentially explosive atmospheres

Débitmètre à effet Hall pour atmosphères explosibles

Hall-Effekt-Durchfluss-Messgerät für explosionsgefährdete Bereiche

Supplement to the Operating Instructions

Supplément au manuel d'utilisation

Ergänzungsanleitung zur Bedienungsanleitung

We reserve the right to make technical changes without notice.
Sous réserve de modifications techniques.
Technische Änderungen vorbehalten.

© 2009-2017 - Bürkert SAS

Supplement 1703/04_EU-ML 00554035 ORIGINAL_FR

1 ABOUT THE SUPPLEMENT

This supplement is an addition to the operating instructions of the flowmeter type 8030. This supplement is only related to the flowmeter type SE30 Ex with the order code 552353. Please keep this supplement in a safe place, accessible to all users and any new owners.

This supplement contains important safety information.

Failure to comply with these instructions can lead to hazardous situations. This supplement must be read and understood.

- ▶ Carefully read this supplement and the operating instructions of the flowmeter type 8030.
- ▶ Particular respect must be paid to the chapters "Conforming Use", "Basic Safety Information" and to the standard EC design-examination certificate established by INERIS.

1.1 Definition of the word "device"

The word "device" used within this supplement refers to the flowmeter type SE30 Ex.

2 INTENDED USE

Use of the device that does not comply with the instructions could present risks to people, nearby installations and the environment.

- ▶ The hall effect flowmeter SE30 Ex is intended to measure the flow rate of neutral or slightly aggressive liquids free of solid particles. It is designed to operate in an explosive atmosphere II 3 GD, temperature class T4.
- ▶ This device must be protected against electromagnetic interference, ultraviolet rays and, when installed outdoors, the effects of climatic conditions.
- ▶ This device must be used in compliance with the characteristics and commissioning and use conditions specified in the contractual documents and in the user manual.
- ▶ Requirements for the safe and proper operation of the device are proper transport, storage and installation, as well as careful operation and maintenance.
- ▶ Only use the device as intended.

2.1 Ex certification

Ex certification is valid as long as the device is used in compliance with this supplement.

3 BASIC SAFETY INFORMATION

Apart from the basic safety information described in the operating instructions of the flowmeter type 8030, respect the following instructions.



Risk of explosion caused by an accumulation of electrostatic charges

- ▶ Check that the device is not subject to a flow of air and dust that may result in an accumulation of electrostatic charges when it is installed in zone 22.
- ▶ Install the device in a conductive cover when it is used in zone 2.



Danger caused by an explosive atmosphere

- ▶ Do not dismantle or uninstall the SE30 Ex Hall effect flowmeter when it is operating.



The standard EC design-examination certificate 04 ATEX 3015 X is available on the Internet at: www.burkert.com

4 GENERAL INFORMATION

4.1 Contact

To contact the manufacturer of the device, use following address:

Bürkert SAS
Rue du Giessen
BP 21
F-67220 TRIEMBACH-AU-VAL

4.2 Warranty conditions

The condition governing the legal warranty is the conforming use of the device in observance of the operating conditions specified in this manual.

4.3 Certification

The standard EC type examination certificate 04 ATEX 3015X and its annexes 04 ATEX 3015 X/01 and 04 ATEX 3015 X/02 have been drawn up by the following body:

INERIS
Parc technologique Alata
BP 2
F-60550 VERNEUIL EN HALATTE

5 DESCRIPTION

5.1 Area of application

The hall effect flowmeter SE30 Ex is intended to measure the flow rate of neutral or slightly aggressive liquids free of solid particles. It is designed to operate in an explosive atmosphere II 3 GD, temperature class T4.

5.2 Description of the name plate

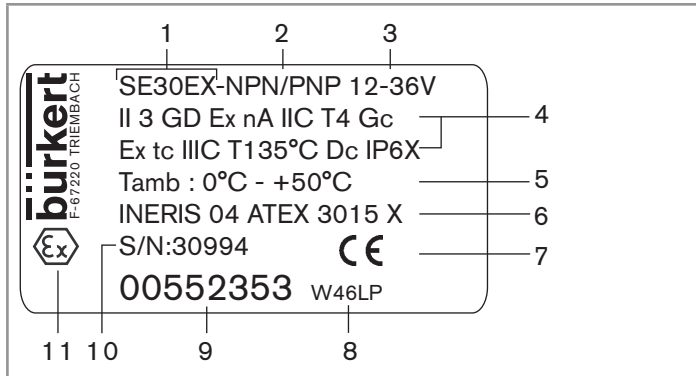


Fig. 1: Name plate of the Hall effect flowmeter SE30 Ex

1. Type of the device
2. Type of output
3. Power supply
4. Specifications of the ATEX classification
5. Ambient temperature range for use from the safety point of view

6. Certification body and ATEX number
7. Conformity logo
8. Manufacturing code
9. Order code
10. Serial number
11. Conformity logo

6 TECHNICAL DATA



Risk of explosion

- Respect the indications on the name plate of the device.

6.1 Conditions of use

Ambient temperature	0 bis +50 °C
Air humidity	< 85%, non condensated

6.2 Conformity to standards and directives

The applied standards, which verify conformity with the EU directives, can be found on the EU-type examination certificate and/or the EU declaration of conformity (if applicable).

The device is constructed in accordance with the requirements of the ATEX Directive 2014/34/EU for category 3 and can be used in zone 2 or zone 22.

This device, which can be used in explosive atmospheres in zone 2 or zone 22, meets the requirements of the following standards:

- Gas: EN 60079-0, EN -1560079
- Dust: EN 60079-31

6.3 Mechanical data

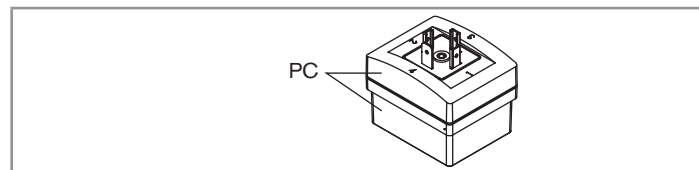


Fig. 2: Materials exposed to ambient air in the SE30 Ex

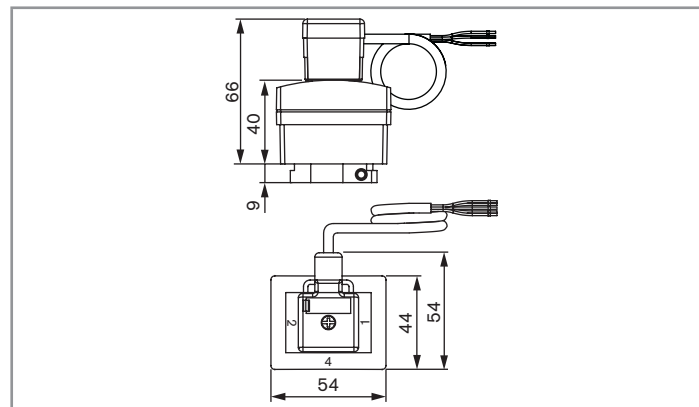


Fig. 3: Dimensions of the device with a female connector type 2513 available as an accessory

Type SE30 Ex

Technical data

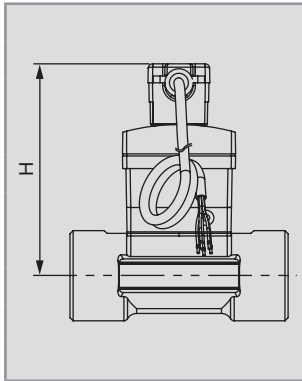
	DN (mm)	H (mm)
		06
	08	96
	15	101
	20	98
	25	98
	32	102
	40	106
	50	112
	65	112

Fig. 4: Dimension H of the device with a female connector type 2513, available as an accessory, and mounted on a fitting S030

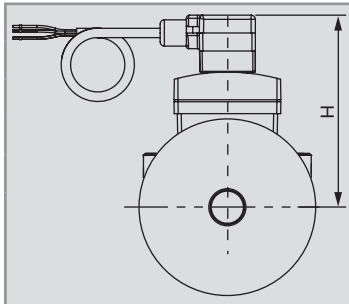
	DN (mm)	H (mm)
		15 ¹⁾
	25	116
	40	133
	50	151
¹⁾ Only version with internal thread connections		

Fig. 5: Dimension H of the device with a female connector type 2513, available as an accessory, and mounted on a fitting S070

6.4 Electrical data

Power supply	U. 12-36 VDC, filtered and regulated
Consumption (without load)	$I_{max.} \leq 30 \text{ mA}$
Reversed polarity	protected
Protection against spike voltages	protected
Protection against short circuits	protected
Transistor outputs	1 x NPN and 1 x PNP, $I_{max.} < 100 \text{ mA}$, frequency 0 to 300 Hz with duty cycle of 1/2

7 ASSEMBLY AND FLUIDIC INSTALLATION

→ Do the fluidic installation and the assembly as described in the operating instructions type 8030 provided with the device.

8 WIRING



DANGER

Risk of injury due to electrical discharge

- ▶ Always insert a female connector and tighten the screw of the connector.



To make sure the device is tight, always insert a wired female connector.

The electrical connection of the flowmeter SE30Ex is made via a 4-pin male fixed connector.

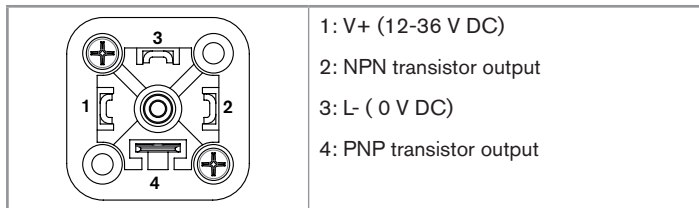


Fig. 6: Pin assignment of the male fixed connector

A female connector type 2513 moulded on cable is available as an accessory to wire the device. See chap. "9 Accessories".

Pin of the female connector type 2513 available as an accessory	Colour of the wire (signal)
1	white (12-36 V DC)
2	brown (NPN transistor output)
3	green (0 V DC)
4	yellow (PNP transistor output)

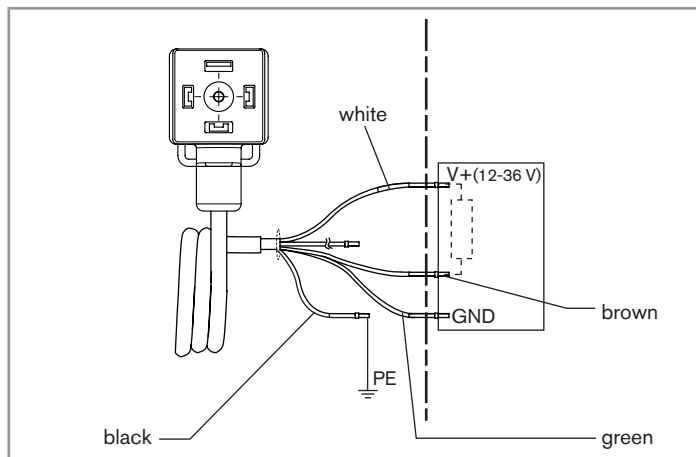


Fig. 7: NPN connection of the device with a female connector type 2513 available as an accessory

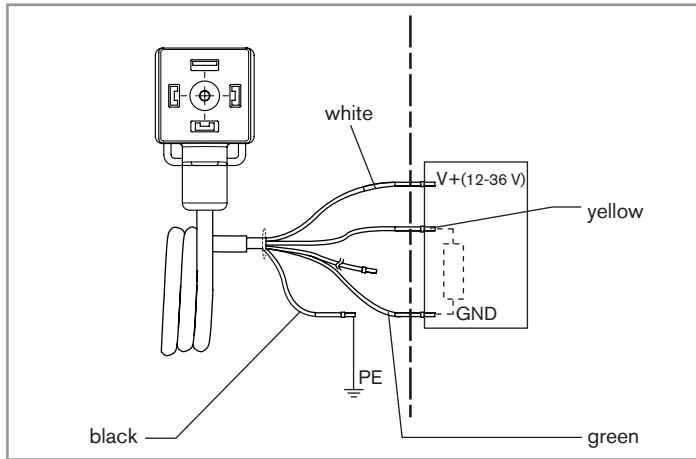


Fig. 8: PNP connection of the device with a female connector type 2513 available as an accessory

9 ACCESSORIES

Accessory	Order code
4-pin female connector type 2513, moulded on cable (5 m), NBR seal	565558
4-pin female connector type 2513, moulded on cable (12 m), NBR seal	565559

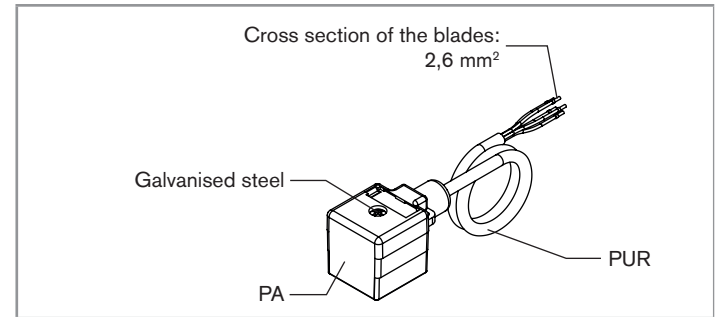


Fig. 9: Female connector type 2513 available as an accessory

10 MAINTENANCE AND TROUBLESHOOTING

10.1 Safety instructions

Apart from the basic safety information described in the operating instructions of the flowmeter type 8030, respect the following instructions.



Danger caused by an explosive atmosphere

- ▶ Do not dismantle or uninstall the SE30 Ex Hall effect flowmeter when it is operating.
- ▶ Clean the surface of the device using a damp cloth, but do not scrub.

10.2 Troubleshooting

In the event of electrical failure, return the device to the following address:

BÜRKERT S.A.S

BP 21

F-67220 TRIEMBACH-AU-VAL

11 STORAGE

NOTE

Poor storage can damage the device.

- ▶ Store the device in a dry place away from dust.
- ▶ Storage temperature: 0 to +50 °C.

www.burkert.com