

1 Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016

2 Certificate N°: **KBUK22.4164X** **Issue 0**

3 Manufacturer: Heinrichs Messtechnik GmbH

4 Address: Robert-Perthel-Str. 9  
50739 Cologne  
Germany

5 Products: **V31** Glass-Tube Variable Area Flow-Meter

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6 In accordance to Clause 9 of the *Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 ( SI 2016 No. 1107)*, self-declaration, Heinrichs Messtechnik GmbH ensures in sole responsibility that the products concerned in this certificate of conformity satisfy the requirements of this Regulation. The internal production assessment procedure performed for the above mentioned products fulfils the obligations laid down in point 3 and 4 and are compliant to the Essential Health and Safety Requirements relating to the design and construction of product intended for use in potentially explosive atmospheres.

7 The technical documentation has been submitted for a 3 year depository, according to SI 2016 No. 1107, to the Conformity Assessment Body;

SGS Baseefa Limited (UK CAB number 1180)

8 The 'X' suffix after the certificate number indicates that the equipment is subject to conditions of safe use. These are specified in section 14

9 Compliance with the Essential Health and Safety Requirements has been demonstrated through compliance with the following documents:

**BS 1127-1:2019**

**BS 80079-36:2016**

10 The equipment marking shall include the following:



**II 2G Ex h IIC T6 Gb**

**II 2d Ex h IIIC T85°C Db**

Heinrichs Messtechnik GmbH  
Cologne 17.02.2022

Signed:

  
\_\_\_\_\_  
Guido Thometzki  
(Managing Director)

  
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Joseph Burke  
(Explosion Protection Representative)

11 Description

11.1 Product Description

The V31 is suitable for the flow-measurement of fluids or gases in pipe systems.

The momentary flow volume or mass is indicated pro time unit on a scale printed on to the glass measuring tube. Alternatively, the measuring tube is available with a percent or 2 mm scale.

The devices may be fitted with electrical limit switches. The switches must be certified or assessed for the prevailing installation environment.

11.2 Model Code:

V31\*- AAAAAA – BBCCD – E F G H I – J K L L M N O P Q R XXX

**A:** Process Connections

**B:** Float Properties

**C:** Measuring Range

**D:** Medium

**E:** Glass Tube Sealing Gasket

**F:** Float Stopper

**G:** Union Nut Material

**H:** Shatter protection

**I:** Electrical equipment (Contacts)

0 = None

1 = 1x GSGA (NC)

2 = 1x GSGB (NO)

3 = 1x GSGW (SPDT)

4 = 2x GSGA (NC)

5 = 2x GSGB (NO)

**J:** Scale

**K:** Certificates

**L:** Calibration

**M:** Cleaning acc. factory standards

**N:** Pressure / Leakage test

**O:** Approvals

**P:** Marking Tags

**Q:** Supp. Equipment

**R:** Company Design

**X:** Up to 6 further non-Ex relevant positions

**Restrictions:**

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### 11.3 Certificate History and Evaluation Reports

Issue N°.	Date	Technical Documentation	Notes
0	17.02.2022	EE0081-3001X	Original document submission according to BS EN 80079-36:2016

### 11.4 Temperatures

The equipment's temperature class, surface temperature and equipment protection levels are dependent upon the ambient and process temperatures as follows:

Ambient Temperature	Process Temperature	Temperature class Gas	Temperature Class Dust
-40 ... 80 °C	-40 ... 80 °C	T6	85 °C

With the addition of electrical equipment, a further restriction of the maximum ambient and process temperature may be required. Refer to the UKEX or EU Type Approval of the relevant electrical component and the meter operating manual for further information for the determination of the prevailing temperature class.

## 12 Specific Conditions of Use

- 12.1 By the measurement of non-conductive medium, the earthing of the equipment is essential to ensure a build-up of static electricity within the meter is suppressed.
- 12.2 When installed and operated in potentially explosive dust environments, the device must be cleaned regularly in order to avoid deposits exceeding 5 mm. Clean with a damp cloth.
- 12.3 The polycarbonate glass tube protection hood exceeds the maximum permissible surface area specified in DIN EN ISO 80079-36:2016 / 6.7.5. When installed in potentially explosive atmospheres, it is to be ensured that electrostatic charge in dangerous quantities cannot occur.
- Do not rub the hood with a dry cloth.
- 12.4 To prevent float hammering when the medium flow is ramped-up or shut-down, it is to be ensured that a maximum flow rate of 15 m/s is not exceeded. Solenoid valves are to be avoided