

Translation

EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 22 ATEX E 035** Issue: **00**

Equipment: **QuantumX BraggMeter
types MXFS8DI1/FC and MXFS8SI1/FC**

Manufacturer: **HBK FiberSensing, SA**

Address: **Rua Vasconcelos Costa, 277, 4470-640 Maia, Portugal**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 23.2028 EU.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-28:2015

General requirements
Optical radiation "op is/pr/sh"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:



II (1)G [Ex op is IIC T6 Ga]
II (1)D [Ex op is IIIC Da]
I (M1) [Ex op is I Ma]

DEKRA Testing and Certification GmbH
Bochum, 2023-05-09

Signed: Dr. Rolf Krökel

Managing Director

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 22 ATEX E 035

15 **Product description**

15.1 **Subject and type**

QuantumX BraggMeter
types MXFS8DI1/FC and MXFS8SI1/FC

15.2 **Description**

The QuantumX BraggMeter optical interrogator is a data acquisition system to measure optical sensors. The measurement different parameters such as strain, temperature, acceleration, load, displacement, inclination, etc. is possible. The QuantumXBraggMeter has 8 optical connectors to which 8 measuring fiber Bragg grating sensor arrays, with several sensors in series, can be connected.

The device must be erected outside of the explosive atmosphere. The optical radiation was evaluated according the EN 60079-28:2015. The optical radiation can be irradiated in all areas of groups I, II and III.

15.3 **Parameters**

Nominal Voltage	U_n	24	VDC
Maximum optical power per channel	P_{opt}	< 15	mW
Nominal optical power per channel	P_{opt}	< 1	mW
Ambient temperature range	T_a	0 °C ... +50 °C	

16 **Report Number**

BVS PP 23.2028 EU., as of 2023-05-09

17 **Specific Conditions of Use**

None

18 **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2023-05-09
BVS-AIh/MGR A 20220427 / 3427948



Managing Director

