

EU-Type Examination Certificate Supplement 2

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 17 ATEX E 002 X**

Product: **Sensor type VFS**-***A1 or FLP**-***A1**

Manufacturer: **TST electronics GmbH**

Address: **Berliner Straße 42, 58135 Hagen, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 17 ATEX E 002 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations 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 17.2005 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

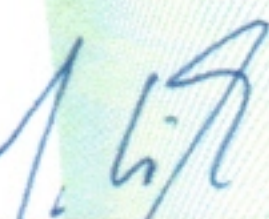
If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. 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 1G Ex ia IIB T4 Ga**

DEKRA Testing and Certification GmbH
Bochum, 2022-05-11



Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**

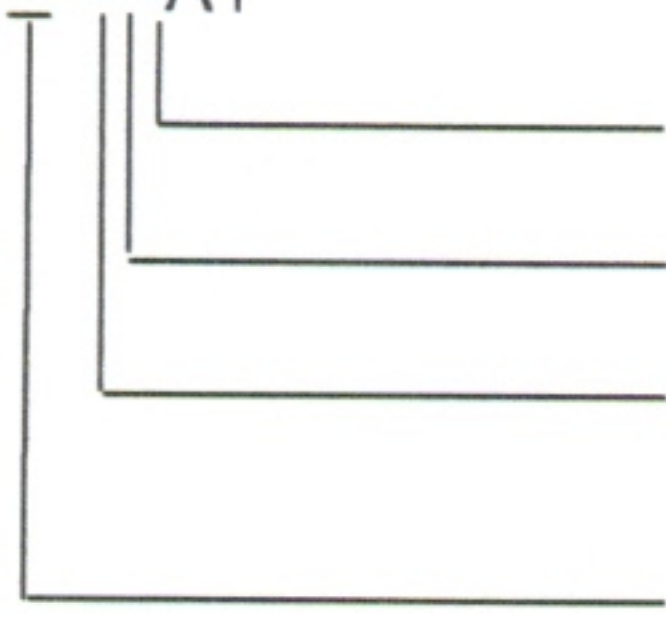
**BVS 17 ATEX E 002 X
 Supplement 2**

15 **Product description**

15.1 **Subject and type**

Sensor type VFS^{**}-^{***}A1 or type FLP^{**}-^{***}A1
 Instead of the ^{**}-^{***} in the complete name letters and numerals will be inserted, which identify different types.

Type VFS^{**}-^{***}A1 or
 type FLP^{**}-^{***}A1



Letter P or S or N for process division

Numeral 1 or 2 or 3 for frequency

Medium L = Liquid
 G = Gas

Numeral 04 or 08 or for size

15.2 **Description**

The sensor is used for flow measurement and for the conversion of the flow rate into an electrical signal.

The sensor will be mounted in a pipe system. The electrical connection of the sensor is by means of an up to 50 m long permanently connected cable.

Reason for the supplement:

- The equipment has been assessed in accordance with current standard versions.
- A self-adhesive type label can now be used (formerly the marking was printed directly on the enclosure).
- Another connecting cable can be used.
- A new "Condition of Use" has been added.
- The schematic and the layout have changed slightly.

15.3 **Parameters**

Circuit 1 (strands brn + wht) and
 Circuit 2 (strands yew + gre)
 values each

Voltage	U_i	DC	10	V
Current	I_i		200	mA
Power	P_i		0.5	W

Both circuits are connected internally; the following resulting values apply:

Voltage	U_i	DC	10	V
Current	I_i		400	mA
Power	P_i		1	W
Effective internal capacitance (incl. 50 m cable)	C_i		2.02	μF
Effective internal inductance (cable inductance for 50 m)	L_i		50	μH
Ambient temperature range	T_a		-40 °C up to +60 °C	

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Special Conditions for Use

Metallic process connections have to be connected electrostatic conductive (< 1 MΩ) to the local equipotential bonding.

The sensor may only be used in areas, in which intensive electrostatic charging caused by the process are not expected.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

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Drawings and Documents

Drawings and documents are listed in the confidential report.