



Translation

(1) **EU-Type Examination Certificate**

TUV NORD

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



(3) **Certificate Number** TÜV 10 ATEX 555391 X **issue:** 01

(4) for the product: Force transducer / load cell resp. metering shaft type KA.-.-E-EX

(5) of the manufacturer: **A. S. T. - Angewandte System-Technik GmbH**

(6) Address: Marschnerstraße 26
01307 Dresden
Germany

Order number: 8003007193

Date of issue: 2019-08-19

- (7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 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 ATEX Assessment Report No. 19 203 247469.

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-11:2012

except in respect of those requirements listed at item 18 of the schedule.

- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.
- (11) 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 equipment. These are not covered by this certificate.

- (12) The marking of the product shall include the following:

II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T200 °C Da

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body

Roder

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 10 ATEX 555391 X issue 01**

(15) **Description of product**

The force transducers / load cells resp. metering shafts type KA.-.-E-EX are used for the static and the dynamic measurement of forces and masses. The connection of the force transducer and metering shaft is normally realized in 4-wire technology, for load cells realized in 6-wire technology. The compressive force resp. compressive load generates a proportional, positive output signal.

Type code:

KAM-S-E-EX, KAD-E-EX, KAD-S-E-EX, KAD-T-E-EX, KAB-E-EX, KAU-E-EX, KAS-E-EX, KAM-E-EX, KAM-B-E-EX, KAM-PR-E-EX, KAF-E-EX, KAL-E-EX, KAN-R-E-EX and KAK-S-E-EX

Electrical data:

Supply

In type of protection Intrinsic Safety Ex ia IIC / IIIC only for the connection to certified intrinsically safe circuits.

(In 4-wire technology:

Strands red-black or red-blue or brown-yellow

In 6-wire technology:

Strands brown-yellow or brown-green)

Maximum values:

$U_i = 12 \text{ V}$

$I_i = 100 \text{ mA}$

$P_i = 650 \text{ mW}$

Effective internal capacitance C_i

925 nF + capacitance of the connected cable C_c

Effective internal inductance L_i

Inductance of the connected cable L_c

For the connected cable the following applies

$C_c \leq 200 \text{ pF/m}$

$L_c \leq 1 \text{ } \mu\text{H/m}$

Thermal data:

Permissible range of the ambient temperature

$-20 \text{ }^\circ\text{C} \leq T_a \leq +60 \text{ }^\circ\text{C}$

(16) Drawings and documents are listed in the ATEX Assessment Report No. 19 203 247469

(17) **Specific Conditions for Use**

1. Metallic process connection parts must be included in the local equipotential bonding.
2. The force transducer type KAM-S-E-EX is to be installed in such a way that ignition hazards due to impact or friction can be excluded.
3. The intrinsically safe circuit is connected to earth potential, along the intrinsically safe circuit potential equalization must exist.

(18) **Essential Health and Safety Requirements**

No additional ones

- End of Certificate -