(1) # EU - Type Examination Certificate

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

(3) EU - Type Examination Certificate Number

EPS 19 ATEX 1 146 U **Revision 1**

(4) Component: Trace Heater Type ELKM-AG-E...

(5) Manufacturer: eltherm production GmbH

(6) Address: Ernst-Heinkel-Str. 6-10
57299 Burbach
Germany

(7) This component and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this component has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 19TH0335.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

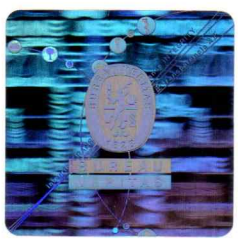
EN IEC 60079-0:2018 **EN 60079-30-1:2017**

(10) The sign "U" placed behind the certificate number indicates that this certificate shall not be confounded with certificates issued for equipment or protective systems. This certificate is valid for a component without an autonomous function in sense of article 2 (3) and does not authorize for the CE-marking to be applied according to article 13 (3) of the Directive. This component certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(11) This EU - Type Examination Certificate relates only to the design and construction of the specified component in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this component and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the component shall include the following:

II 2G Ex 60079-30-1 IIC Gb
II 2D Ex 60079-30-1 IIIC Db



Certification department of explosion protection

Ulrich Feike

Tuerkheim, 2022-09-28

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH.

(13) # Annex

(14) **EU - Type Examination Certificate EPS 19 ATEX 1 146 U** **Revision 1**

(15) Description of component:

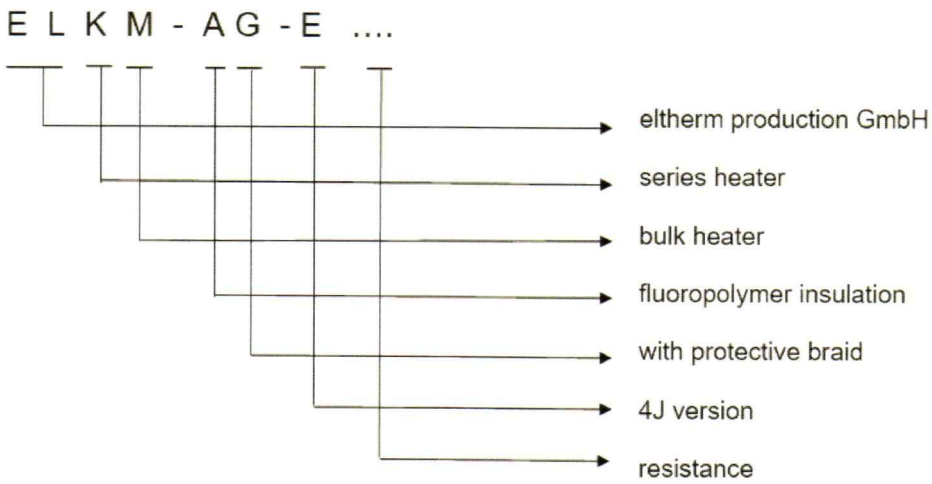
Fluoropolymer insulated series trace heater type ELKM-AG-E .... as a component with different resistances. The heater will be used as part of a separately certified heat tracing system for frost protection and temperature maintenance up to 260 °C of pipes, vessels and associated equipment in hazardous areas.

Technical data:

Rated voltage	750 V
Mechanical resistance	4 J
Min. bending radius	2.5 x heater diameter
Conductor material	copper, heater alloys
Insulation and jacket material	PFA

Design	Outer diameter (mm)	Range of resistances (Ω/m)
ELKM-AG-E... spiraled conductor	max. 5.2 min. 4.3	min. 9 max. 1500
ELKM-AG-E... stranded conductor	max. 5.6 min. 3.5	min. 0.0044 max. 8

Type key:



Example: ELKM-AG-E 0,26

(16) **EU - Type Examination Certificate EPS 19 ATEX 1 146 U** **Revision 1**

(17) Reference number: 19TH0335

(18) Notes for manufacture, installation and operation:

Min. admissible ambient temperature: -60 °C
Max. admissible service (operating) temperature: +260 °C

The connection method, the temperature class and the requirements made on the qualification of the staff putting the installation regulations into practice, have to be defined in the final certification of the respective heat tracing system.

The manufacturer's instructions must be followed.

(19) Essential health and safety requirements:

Met by compliance with standards.

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Tuerkheim, 2022-09-28

Ulrich Feike