



**BUREAU
VERITAS**



EU - Type Examination Certificate

(1)

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

(3) EU - Type Examination Certificate Number

EPS 12 ATEX 1 457 X

Revision 6

(4) Equipment: Electrical heating circuit and connecting sleeve for cable
type: QE****_**/**_*_*_*_***/***/ ****

(5) Manufacturer: Quintex GmbH

(6) Address: i_Park Tauberfranken 13
D-97922, Lauda-Königshofen
Germany

(7) This equipment 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 equipment 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 11TH0239.

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

EN IEC 60079-0:2018


EN 60079-7:2015/A1:2018

EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

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

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

 II 2G Ex eb IIC T6/T5/T4/T3/T2 Gb

 II 2D Ex tb IIIC T135°C Db IP65



Certification department of explosion protection

Hamburg, 2021-05-17



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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. EPS 12 ATEX 1 457 X, Revision 6.

Annex

(13)

(14) **EU - Type Examination Certificate EPS 12 ATEX 1 457 X**

Revision 6

(15) Description of equipment:

The heating circuit QE****_**/** *_*_*_****/** / ***** is used for the electrical heating of pipes, containers, protective boxes, electric motors, etc. in order to protect temperature-sensitive products from frost or to maintain certain temperatures of these products or to avoid condensation. The heating circuit can also be built into a rib profile in order to increase the heat and energy output of the self-limiting heating tape. The heating circuit QE ... can be preassembled in the factory or assembled on site. The electrical connection sleeve QE... is used to connect cables for energy and signal transmission. The connection can be made at the factory or on site.

The heating circuit QE ... consists e.g. from one of the self-limiting heating tapes ILL, ILLW, ILM, ILMP, ILH or ILS or equivalent and an electrical connection with a thermally resistant connection cable and a heating tape termination. The self-limiting heating tapes mentioned above are already certified by the ATEX type examination certificate certified.

The plastic foam insulated single-core heating cables used are Ex e-certified. Single-core heating circuits are implemented in a monitored design.

The cylindrical connection space can also be used as a direct entry into an approved Ex-e distributor housing, preferably with a 90° bent shape. Here, the heating tape or respectively the single core cold end wire without ceramic terminal block is inserted through the curved Ex-e connection space into the Ex-e distributor housing and placed there on terminals. The Ex-e distributor housing is sealed by the use of one of the two Ex-e certified cable glands. The 90° bend cylindrical connection space is for example fixed with a metal strap attached to the product pipe.

Alternatively, the connection in the cylindrical terminal compartment can be implemented using the 8-pin Ex-e cage clamp technology (see type code in the connection technology operating instructions, code number F).

The maximum operating temperature of the selected heating tape occurring in the respective application must not exceed the maximum ambient temperatures listed. In the case of the non-self-limiting heating tape, this is used in conjunction with an appropriately approved, explosion-proof controller and limiter unit. The attachment or installation of the heating circuit must be carried out and documented as described in the operating instructions. The documentation must be stored safe.

The heating circuit QE... is usually laid stretched out on pipes, containers, rib profiles, etc. Overlapping or parallel laying is possible with self-limiting heating tapes. When installing on pipes, the entire heating circuit is completely protected from impacts by the existing insulation and a sheet metal outer jacket.

The connection sleeve QE... is used in electrical installations to connect or extend heat-proof cables.

Electrical data:

Rated voltage:	12 V to 400 V
Maximum rated current:	20 A
Continuous use temperature:	Connection QE... = -60 °C to +190 °C
	Final-closure 0 = not available
	Final-closure 1 = -55 °C to +205 °C
	Final-closure 2 = -55 °C to +125 °C
	Final-closure 3 = -55 °C to +200 °C
	Final-closure 4 = -40 °C to +50 °C
	Final-closure 5 = -60 °C to +190 °C
	Final-closure 6 = -60 °C to +190 °C

Max. ambient temperature T_a :

$-60\text{ °C} \leq T_{amb} \leq +190\text{ °C}$ depending on Heating tape-Type
 $-55\text{ °C} \leq T_{amb} \leq +105\text{ °C}$ for connection with Ex-e cage clamp technology

(16) Reference number: 11TH0239

(17) Special conditions for safe use:

The ambient temperature range of the respective heating tape respectively heating cable shall be respected. At the connection points of the heating cables a maximum limit temperature of $T = 190\text{ °C}$ shall not be exceeded.

When using the cylindrical connection compartment in connection with the 8-pin Ex-e cage clamp spring clamp technology (see type code in the connection technology operating instructions, code number F), the maximum voltage is limited to $U_{max} = 60V$.

The cylindrical connector space must be permanently grounded by the end user (see note in the user manual).

Ambient temperature range with Ex-e cage clamp technology: $-55\text{ °C} \leq T_{amb} \leq +105\text{ °C}$

(18) Essential health and safety requirements:

Met by compliance with standards.

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Hamburg, 2021-05-17



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