



## (1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - Directive 94/9/EC

(3) EC-type-examination Certificate Number:

**PTB 08 ATEX 1101 U**



(4) Component: Connection sleeve, type CS-150-...-PI

(5) Manufacturer: Tyco Thermal Controls N.V.

(6) Address: Romeinsestraat 14, 3001 Leuven, Belgium

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, 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 to the Directive.

The examination and test results are recorded in the confidential assessment and test report PTB Ex 09-18307.

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

**EN 60079-0:2006**

**EN 60079-30-1:2007**

**EN 61241-0:2006**

**EN 61241-1:2004**

(10) The sign "U" placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This Component Certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified component in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

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

II 2G Ex e II and II 2D Ex tD A21 IP65

Zertifizierungssektor Explosionsschutz  
By order:

Braunschweig, February 10, 2009

*(signature)*

Dr.-Ing. U. Klausmeyer  
Direktor und Professor

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 08 ATEX 1101 U

(15) Description of component

Connection sleeve, type CS-150-.-PI, for polymer-insulated single-wire plastic heating cable (e.g. type XPI), which is intended for use as a component in trace heating systems.

Technical data

Rated voltage                      500 V  
Temperature range                -50 ... +200°C

For detailed specifications, reference is made to installation / operating instructions.

(16) Test Report PTB Ex 09-18307

(17) Notes for manufacturing, installation and operation

1. The temperature class has to be defined in the EC-Type-Examination Certificate for the heating system.
2. The connection sleeve must be fixed. To avoid tensile stresses, the heating- and connection cables have to be fixed directly next to the sleeve.
3. The manufacturer's operating instructions must be complied with.

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

Zertifizierungssektor Explosionsschutz  
By order:

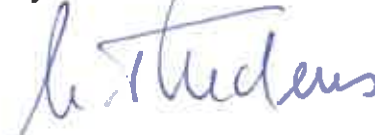
Braunschweig, 10 February 2009

(signature)

Dr.-Ing. U. Klausmeyer  
Direktor und Professor

2 pages, correct and complete as regards content.

By order:



Dr.-Ing. M. Thedens  
Oberregierungsrat



Braunschweig, June 8, 2009

sheet 2/2



(1) **EU-TYPE EXAMINATION CERTIFICATE**  
**(Translation)**

(2) Component Intended for Use in Potentially Explosive Atmospheres  
**Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

**PTB 08 ATEX 1101 U**

**Issue: 1**

(4) Component: Connection sleeve type CS-150-xx-PI

(5) Manufacturer: nVent Thermal Belgium NV

(6) Address: Romeinse straat 14, 3001 Leuven, Belgium

(7) This component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 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 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 test report PTB Ex 20-10076.

(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 should not be confounded with certificates issued for equipment or protective systems. This partial certification may be used as a basis for certification of an equipment or protective systems.

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

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



**II 2 G Ex 60079-30-1 IIC Gb**



**II 2 D Ex 60079-30-1 IIIC Db**

Konformitätsbewertungsstelle, Sektor Explosionsschutz  
On behalf of PTB

Braunschweig, October 1, 2020

  
Dr.-Ing. D. Markus  
Direktor und Professor



(13)

## SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 08 ATEX 1101 U, Issue: 1**

(15) Description of Product

CS-150-xx-PI is a connection sleeve for polymer-insulated single wire plastic heating cable. CS-150-xx-PI is designed to connect a PI cold lead cable to a XPI series heating cable as well as a splice two XPI heating cables.

### Technical data

Rated voltage	XPI and XPI-S	450 / 750 Vac (U <sub>o</sub> / U)
	XPI-F	300 / 500 Vac (U <sub>o</sub> / U)
Rated current (for use with cold lead)*	2,5 mm <sup>2</sup>	32 A
	6 mm <sup>2</sup>	54 A
	25 mm <sup>2</sup>	129 A
Rated current (for use as a splice)	the max. allowed current is to be determined by the cable type and parameters like specific power and exposure temperature	
Resistance range**	0,8 ... 8000 Ohm/km	

\* for more information see instruction manual

\*\* depending on the heating cable used.

### Nomenclature

CS-150-xx-PI

xx stands for the area of the connecting sleeve: max. 2,5 mm<sup>2</sup> / 4 ... 6 mm<sup>2</sup> / 10 ... 25 mm<sup>2</sup>

(16) Test report PTB Ex 20-10076

(17) Notes for manufacture, installation and operation

1. The temperature class has to be defined in the Certificate for the heating system.
2. The connection sleeve must be fixed. To avoid tensile stresses, the heating- and connection cables have to be fixed directly next to the sleeve.
3. The minimum bend radius is 2.5x the cable diameter for cables less than or equal to 6mm in diameter or the minimum bend radius is 6x the cable diameter for cables greater than 6mm in diameter.

sheet 2/3

EU-Type Examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

**SCHEDULE TO EU-TYPE-EXAMINATION CERTIFICATE PTB 08 ATEX 1101 U, Issue: 1**

4. The XPI- or XPI-F-cable is for use in areas with low risk of mechanical damage, therefore appropriate installation consideration shall be taken. The XPI-S-cable is for use in areas with normal risk of mechanical damage.
5. The minimum cable spacing must not be less than 20mm.
6. The electrical crimp connections have to be performed with the PI-TOOL-xx.
7. The manufacturer's operating instructions must be complied with.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz  
On behalf of PTB:

Braunschweig, October 1, 2020

  
Dr.-Ing. D. Markus  
Direktor und Professor

