

# CERTIFICATE

## (1) EU-Type Examination

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

(3) EU-Type Examination Certificate Number: **DEKRA 21ATEX0118 X** Issue Number: **0**

(4) Product: **Installation Enclosures for Self Regulating Trace Heating Types 27-54\*\*-\*\*\*\*/\*\*\*\***

(5) Manufacturer: **BARTEC GmbH**

(6) Address: **Max-Eyth-Straße 16, 97980 Bad Mergentheim, Germany**

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

(8) DEKRA Certification B.V., Notified Body number 0344 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 confidential test report number NL/DEK/ExTR20.0057/00.

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

**EN IEC 60079-0 : 2018**  
**EN 60079-11 : 2012**  
**EN 60079-31 : 2014**

**EN 60079-1 : 2014**  
**EN 60079-30-1 : 2017**

**EN 60079-7 : 2015 + A1 : 2018**  
**EN 60079-18 : 2015 + A1 : 2017**

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of 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 product. These are not covered by this certificate.

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



See (15)

Date of certification: 13 May 2022

DEKRA Certification B.V.

R. Schuller  
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 21ATEX0118 X**

Issue No. **0**

(15) **Description**

Installation Enclosures for Self Regulating Trace Heating, type 27-54\*\* -\*\*\*\*/\*\*\*\* are trace heater accessories for use in Bartec trace heating systems.

The enclosures made of either stainless steel, coated aluminum or GRP (glassfiber reinforced polyester) are in type of protection Ex eb or Ex tb.

The enclosures may be utilized with M12, M20, M25, M32 entries and/or a custom entry for power cables, temperature sensors and trace heaters.

Entry devices for trace heaters and temperature sensors in type of protection Ex eb or Ex tb are included where applicable. Grommets for sealing the trace heaters may be provided with separately supplied installation kits.

The Installation Enclosures are available in a variety of subtypes:

- Power Boxes PBS or PBM that include the Ex eb terminals only.
- Electronic thermostat PBTC that includes an electronic module in types of protection Ex eb, mb, [ib] and 60079-30-1 and a transparent lens mounted in the cover in type of protection Ex eb or tb.
- Mechanical thermostat PBTW that includes a capillary thermostat with switching unit types of protection Ex db and eb, terminals in type of protection Ex eb and a gland for the capillary tube in type of protection Ex eb or tb.
- End of Line Lamp ELL that includes an illuminated indicator module in types of protection Ex db and eb and a colored transparent lens mounted in the cover or optionally the top side of the enclosure in type of protection Ex eb or tb.
- End of Line Seal ELS that includes a box pedestal PS-120-2, a PS-E GRP environmental protection cap and an End Seal ES1 with RTV sealant in type of protection Ex 60079-30-1.

The Installation Enclosures are assembled from parts separately assessed as

- Ex Equipment or Ex Component, covered by an ATEX Certificate or
- Equipment, component or part covered by a report issued by an ATEX Notified Body.

For the type designation, thermal and mechanical data, marking and electrical data, see Annex 1 to Report No. NL/DEK/ExTR20.0057/00.

**Installation instructions**

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR20.0057/00.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 21ATEX0118 X**

Issue No. **0**

(17) **Specific conditions of use**

All power and data line cable entries to the trace heater boxes shall be installed with Ex eb or Ex tb cable glands or blanking elements providing a minimum ingress protection of IP66.

Supply cables and power cable entry glands shall be selected per manufacturer's installation instructions for appropriate conductor size and temperature range.

Trace heater boxes, Aluminium housing type 07-5180-\*\*\*\*/\*\*\*\*

The enclosure must not be used in areas affected by charge-producing processes, mechanical friction and separation processes, electron emission (e.g. in the vicinity of electrostatic coating equipment), and pneumatically conveyed dust.

Trace heater boxes, Cable entries PS-120-\* type 27-59-G2-\*

For the Box pedestal PS-120-\* measures shall be taken to avoid electrostatic charging hazards.

PBTW, Ex d Temperature Switch Type 07-6D\*\*-\*\*\*\*/\*\*\*\*

The width of gap of the Ex d Temperature Switch is below the maximum values according to IEC 60079 1. Contact BARTEC for maintenance or repair of Ex d Temperature Switch.

PBTW, PBTC

- Shall be applied for maintenance temperature control only.
- The capillary of the PBTW and PT100 wiring shall be part of a fixed installation and shall be effectively clamped to prevent pulling or twisting.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR20.0057/00.

(20) **Certificate history**

Issue 0 - 226207700      initial certificate

## Description

Installation Enclosures for Self Regulating Trace Heating, type 27-54\*\*-\*\*\*\*/\*\*\*\* are trace heater accessories for use in Bartec trace heating systems.

The enclosures made of either stainless steel, coated aluminum or GRP (glassfiber reinforced polyester) are in type of protection Ex eb or Ex tb.

The enclosures may be utilized with M12, M20, M25, M32 entries and/or a custom entry for power cables, temperature sensors and trace heaters.

Entry devices for trace heaters and temperature sensors in type of protection Ex eb or Ex tb are included where applicable. Grommets for sealing the trace heaters may be provided with separately supplied installation kits.

The Installation Enclosures are available in a variety of subtypes:

- Power Boxes PBS or PBM that include the Ex eb terminals only.
- Electronic thermostat PBTC that includes an electronic module in types of protection Ex eb, mb, [ib] and 60079-30-1 and a transparent lens mounted in the cover in type of protection Ex eb or tb.
- Mechanical thermostat PBTW that includes a capillary thermostat with switching unit types of protection Ex db and eb, terminals in type of protection Ex eb and a gland for the capillary tube in type of protection Ex eb or tb.
- End of Line Lamp ELL that includes an illuminated indicator module in types of protection Ex db and eb and a colored transparent lens mounted in the cover or optionally the top side of the enclosure in type of protection Ex eb or tb.
- End of Line Seal ELS that includes a box pedestal PS-120-2, a PS-E GRP environmental protection cap and an End Seal ES1 with RTV sealant in type of protection Ex 60079-30-1.

The Installation Enclosures are assembled from parts separately assessed as

- Ex Equipment or Ex Component, covered by an IECEx CoC or
- Equipment, component or part covered by a report issued by an IECEx CB.

The Bartec Temperature switch type 07-6D\* is certified per IECEx EPS 11.0007U according to to an older edition of the standard: IEC 60079-0:2011.

No applicable Technical Differences with IEC 60079-0:2017 are found as shown in the ExTR.

Type designation

27 - 5 4 C 2 - 4 4 1 2 / E 2 0 \*  
 A B C D E F G H I J K L M

Designation	Explanation	Value	Explanation
A	Product group	<b>27</b>	Trace heating
B	Product identifier	<b>5</b>	Installation material
C	Design	<b>4</b>	<b>Installation Enclosures</b>
D	Subtype	<b>C</b> <b>D</b> <b>E</b> <b>P</b>	PBTC electronic thermostat PBTW mechanical thermostat ELL or ELS End of Line PBS or PBM Power Box
E	Rated voltage	<b>2</b>	≤ 277 V
F	Enclosure material	<b>4</b> <b>5</b> <b>6</b> <b>A</b>	GRP material Coated aluminium Stainless steel PS-E (GRP environmental protection cap)
G	Enclosure size (minimum outer dimensions)	<b>2</b> <b>3</b> <b>4</b> <b>5</b> <b>7</b> <b>8</b> <b>A</b>	122 x 120 x 90 mm (GRP, coated aluminium) 160 x 160 x 90 mm (GRP, coated aluminium) 220 x 120 x 90 mm (GRP, coated aluminium) 260 x 160 x 90 mm (GRP, coated aluminium) 150 x 150 x 100 mm (stainless steel) 200 x 200 x 120 mm (stainless steel) Cylindrical Ø 50 mm x 80 mm (PS-E)
H	Number of entries for trace heater	<b>1</b> <b>2</b> <b>3</b>	one entry two entries three entries
I	Type of entry device for trace heater	<b>1</b> <b>2</b> <b>3</b>	TG-P-1, TG-H-1, FG-S-1 or FG-S-C PS-120-2 PS-120-3
J	Affixed components	<b>0</b> <b>1</b> <b>3</b> <b>5</b> <b>C</b> <b>D</b> <b>E</b> <b>F</b> <b>T</b>	ELS, no affixed components PBS or PBM, 6 mm² Ex e terminals PBS or PBM, 10 mm² Ex e terminals PBS or PBM, 16 mm² Ex e terminals PBTW, thermostat mechanic -20 °C to +50 °C PBTW, thermostat mechanic 0 °C to +190 °C PBTC, thermostat electronic ETM-25Ex-C ELL, End of Line Lamp, lens in cover ELL, End of Line Lamp, lens in top of enclosure
K	Size and amount of power cable entries	<b>0</b> <b>2</b> <b>3</b> <b>5</b> <b>B</b> <b>C</b>	None 1 x suitable for M25 or M32 1 x suitable for M25 or M32 1 x suitable for M25 or M32 2 x suitable for M25 or M32 2 x suitable for M25 or M32
L	Grounding system	<b>0</b> <b>1</b> <b>2</b> <b>3</b>	None Grounding lug via PE-terminal block Grounding plate (ECP) Grounding via metallic box
M	Custom		Not relevant for certification

**Thermal and mechanical data**

Maximum ambient temperature:	
- general [°C]	+55
- enclosure comprising ELL [°C]	+40
Minimum ambient temperature:	
- with connected trace heater types PSB, MSB, HSB	-55
- with connected trace heater types HSB+, HTSB	-40
- enclosure comprising PBTC [°C]	-40
Degree of ingress protection	
- general, in accordance with IEC 60529 and IEC 60079-0	IP66
- enclosure comprising ELL and / or PBTC, in accordance with IEC 60529 and IEC 60079-0	IP64
- enclosure comprising ELL and / or PBTC, in accordance with IEC 60529	IP66

**Electrical data of trace heater circuits**

Rated voltage [V]:	277
Maximum rating of over current protection:	
- general [A]	32
- enclosure comprising PBTW [A]	16

**Marking**

Power boxes with separately certified power cable glands and breather drain plugs or blind plugs:

**PBS, PBM type 27-54P2-\*\*\*\*/\*\*\*\***

Ex eb 60079-30-1 IIC T6...110 °C (T4) Gb

Ex tb 60079-30-1 IIIC T<sub>L</sub> 80 °C... T<sub>L</sub> 110 °C Db

Temperature controller in enclosure with separately certified power cable glands and blind plugs:

**PBTC type 27-54C2-\*\*\*\*/E\*\*\***

Ex eb mb [ib] 60079-30-1 IIC T6...110 °C (T4) Gb

Ex tb [ib] 60079-30-1 IIIC T<sub>L</sub> 80 °C... T<sub>L</sub> 110 °C Db

Temperature controller in enclosure with separately certified power cable glands and blind plugs:

**PBTW type 27-54D2-\*\*\*\*/\*\*\*\***

Ex db eb 60079-30-1 IIC T6...110 °C (T4) Gb

Ex tb 60079-30-1 IIIC T<sub>L</sub> 80 °C... T<sub>L</sub> 110 °C Db

End of line termination in enclosure:

**ELL type 27-54E2-\*\*\*\*/\*\*\*\***

Ex db eb 60079-30-1 IIC T6...110 °C (T4) Gb

Ex tb 60079-30-1 IIIC T<sub>L</sub> 80 °C... T<sub>L</sub> 110 °C Db



**Electrical data for electronic thermostat PBTC type 27-54C2-\*\*\*\*/E\*\*\***

Supply circuit (terminals L - N) in type of protection Ex eb:

U<sub>m</sub>: 305 Vac  
 Rated power without load: 4.5 W

Load circuit (terminals L - N) in type of protection Ex eb:

U<sub>m</sub>: 305 Vac (phase-neutral-PE)  
 Maximum steady state current: see Electrical data, temperature class and specified maximum surface temperature “T” below, column “PBTC”

Alarm Relay, potential free contacts in type of protection Ex eb:

Rated voltage: 277 Vac or 36 Vdc  
 U<sub>m</sub>: 305 Vac  
 Rated switch current, resistive load: 2 A

Modbus (terminals A, B and C) in type of protection Ex eb:

U<sub>m</sub>: 250 Vac  
 Rated voltage: 5 Vdc

Sensor circuit (RTD/Pt100 terminals):

In types of protection intrinsic safety Ex ib IIC, Ex ib IIB, Ex ib IIIB and Ex ib IIIC with the following maximum values:

U<sub>o</sub> = 6.6 V; I<sub>o</sub> = 827 mA; P<sub>o</sub> = 1.28 W; linear characteristic; C<sub>o</sub> = see table below; L<sub>o</sub> = see table below.

Ex ib IIC	L <sub>o</sub>	32 μH
	C <sub>o</sub>	6.7 μF
Ex ib IIB Ex ib IIIB Ex ib IIIC	L <sub>o</sub>	128 μH
	C <sub>o</sub>	484 μF

The Ex ib sensor circuit is infallibly galvanically separated from the Alarm Relay circuit.

The Ex ib sensor circuit is not infallibly galvanically separated from all other non-intrinsically safe circuits. Therefore the earth connection of the equipment shall be connected to the potential equalizing (P.E.) system in accordance with the applicable installation standard.

Electrical data, temperature class and specified maximum surface temperature “ $T_L$ ”

Connected trace heater type	Trace heater rated power output [W/m]	$T_{amb\ max}$ [°C]	Limitation of operating current (steady state) of trace heating circuit at $T_{amb\ max}$ [A]			Max. surface temperature “ $T_L$ ” [°C]		T-class	
			PBS / PBM	PBTC	PBTW **	Instal. encl. #	Trace heater ##	System ###	
PSB	10, 15	+40	30	19	16	+110	+80	T4	
			27	18	15	+95	+80	T5	
			23	N/A	9	+80	+80	T6	
		+55	26	12	16	+110	+80	T4	
			24	12	15	+95	+80	T5	
			18	N/A	9	+80	+80	T6	
	25, 33	+40	30	19	16	+110	+95	T4	
			27	18	15	+95	+95	T5	
		+55	26	12	16	+110	+95	T4	
			24	12	15	+95	+95	T5	
	MSB HSB	10, 15	+40	20	19	16	+110	+130	T4
			+55	18	* 12	16	+110	+130	T4
30, 45, 60		+40	20	19	16	+110	+170	T3	
		+55	18	* 12	16	+110	+170	T3	
HSB+	10, 15, 30, 45, 60	+40	20	19	16	+110	+200	T3	
		+55	18	* 12	16	+110	+200	T3	
	75	+40	20	19	16	+110	+300	T2	
		+55	18	* 12	16	+110	+300	T2	
HTSB	10, 15, 30, 45, 60	+40	20	19	16	+110	+200	T3	
		+55	18	* 12	16	+110	+200	T3	
	75, 90	+40	20	19	16	+110	+300	T2	
		+55	18	* 12	16	+110	+300	T2	
Notes	<p>* Limitations may apply to the trace heater circuit length, in order not to exceed the maximum allowed operating current (steady state). Consult the manufacturers trace heating system design documentation, containing the calculated operating current of the applicable trace heating circuit.</p> <p>** PBTW is limited to use in trace heating circuits protected by a 16 A rated over current protection, see electrical data above.</p> <p># Maximum surface temperature of installation enclosures:  - with trace heaters installed and operating (with steady state operating current);  - with the installation enclosures positioned in the worst case orientation with maximum amount of accumulated dust layer (limitations to the orientation of installation do not apply).</p> <p>## Maximum sheath temperature trace heater, installed on workpiece (type assessment of trace heaters according to IEC/IEEE 60079-30-1 is not part of this ExTR).</p> <p>### System comprising installation enclosure and trace heaters (type assessment of trace heaters according to IEC/IEEE 60079-30-1 is not part of this ExTR).</p>								



## Nomenclature, application and detailed description of Installation Enclosures

Name Type	Description	For use with			Contents (listed parts may be shown in other lines)
		Power	PSB MSB HSB	HSB+ HTSB	
Power Boxes Types of protection: Ex eb 60079-30-1 Ex tb 60079-30-1					
<b>PBS-200-E</b> <b>PBM-200-E</b> 27-54P2-***2/1*** 27-54P2-***3/1***	Power and or splice connection	x	x	x	Trace heater box with 6 mm <sup>2</sup> terminals, CAK-SRS and PS-120-2 (PBS) or PS-120-3 (PBM)
<b>PBS-200-E10</b> <b>PBM-200-E10</b> 27-54P2-***2/3*** 27-54P2-***3/3***	Power and or splice connection	x	x	x	Trace heater box with 10 mm <sup>2</sup> terminals, CAK-SRS and PS-120-2 (PBS) or PS-120-3 (PBM)
<b>PBS-200-E16</b> <b>PBM-200-E16</b> 27-54P2-***2/5*** 27-54P2-***3/5***	Power and or splice connection	x	x	x	Trace heater box with 16 mm <sup>2</sup> terminals, CAK-SRS and PS-120-2 (PBS) or PS-120-3 (PBM)
<b>PB*-300-E</b> 27-54P2-***1/1***	Power and or splice connection	x	x	#	Trace heater box with 6 mm <sup>2</sup> terminals and CAK-SRG
<b>PB*-300-E10</b> 27-54P2-***1/3***	Power and or splice connection	x	x	#	Trace heater box with 10 mm <sup>2</sup> terminals and CAK-SRG
<b>PB*-300-E16</b> 27-54P2-***1/5***	Power and or splice connection	x	x	#	Trace heater box with 16 mm <sup>2</sup> terminals and CAK-SRG
Temperature controller in enclosure Types of protection: Ex eb mb [ib] 60079-30-1 Ex tb [ib] 60079-30-1					
<b>PBTC-200-E</b> 27-54C2-***12/E***	Electronic thermostat with Ex ib sensor interface	x	x	x	Trace heater box with electronic thermostat, Pt-100, CAK-SRS and PS-120-2 for a single trace heater
<b>PBTC-300-E</b> 27-54C2-***11/E***	Electronic thermostat with Ex ib sensor interface	x	x	#	Trace heater box with electronic thermostat, Pt-100 and CAK-SRG for a single trace heater
Temperature controller in enclosure Types of protection: Ex db eb 60079-30-1 Ex tb 60079-30-1					
<b>PBTW-200-E</b> 27-54D2-***2/**** 27-54D2-***3/****	Mechanical thermostat with capillary and bulb	x	x	x	Trace heater box with mechanical thermostat, CAK-SRS and PS-120-2 or PS-120-3
<b>PBTW-300-E</b> 27-54D2-***1/****	Mechanical thermostat with capillary and bulb	x	x	#	Trace heater box with mechanical thermostat and CAK-SRG
Note # for use of CAK-SRG kit with FG-S-* only					

## Nomenclature, application and detailed description of Installation Enclosures (continued)

Name Type	Description	For use with			Contents (listed parts may be shown in other lines)
		Power	PSB MSB HSB	HSB+ HTSB	
End of line termination in enclosure Types of protection: Ex db eb 60079-30-1 Ex tb 60079-30-1					
<b>ELL-200-E</b> 27-54E2-**12/****	End of line lamp		x	x	Trace heater box with illuminated indicator module, red or green transparent lens, CAK-SRS and PS-120-2
<b>ELL-300-E</b> 27-54E2-**11/****	End of line lamp		x	#	Trace heater box with illuminated indicator module, red or green transparent lens and CAK-SRG
End of line protected seal Types of protection: Ex 60079-30-1					
<b>ELS-200</b> 27-54E2-AA12/****	End of line seal		x	x	GRP environmental protection cap with ES1 ##, RTV sealant and PS-120-2
Notes # for use of CAK-SRG kit with FG-S-* only ## part of CAK-* termination kits					

## Description of kits or components supplied with installation enclosures

Name Type	Description	For use with			Contents (listed parts may be shown in other lines)
		Power	PSB MSB HSB	HSB+ HTSB	
Cold applied cable connection, splice and end termination kit Types of protection: Ex eb 60079-30-1 Ex tb 60079-30-1					
<b>CAK-SRS</b> 27-59CX-9C**/****	Connection and end termination kit, pedestal entry		x	x	SP1, ES1, RTV sealant and grommet for PS-120-*
<b>CAK-SRG</b> 27-59CX-7***/****	Connection and end termination system, gland entry		x		SP1, ES1, RTV sealant, and: TG-*-1 or
27-59CX-9***/****			x	x	FG-S-*
<b>CAK-M25</b> 27-59CX-0G**/****	Splice and end termination kit		x	x	SP1, ES1, RTV sealant and non-metallic blanking plug for M25 power cable entry
<b>CAK-M32</b> 27-59CX-0H**/****	Splice and end termination system		x	x	SP1, ES1, RTV sealant, and non-metallic blanking plug for M32 power cable entry

## Description of kits or components supplied with installation enclosures (continued)

Name Type	Description	For use with			Contents (listed parts may be shown in other lines)
		Power	PSB MSB HSB	HSB+ HTSB	
Trace heater box and accessories Types of protection: Ex eb Ex tb					
<b>Trace heater box</b> Part of kits	Stainless steel, coated aluminum or GRP enclosure	x	x	x	Trace heater box with Terminals and M12, M20, M25, M32 and/or custom PS-120-* entries for power cables, temperature sensors, signaling cables and trace heaters.
<b>Earth continuity plate</b> Custom made	Earth continuity plate in brass to bond multiple entry devices	x	x	x	Earth continuity plate with threaded bolt connection, anty skid washer, lock nut and earth continuity wire.
<b>Earth continuity wire</b> Part of earth continuity plate	Bonding wire to bond earth continuity plate to earth				Yellow green wire with crimp lug and conductor end crimp ferrule.
Trace heater entry devices Types of protection: Ex eb Ex tb					
<b>PS-120-2</b> 27-59G2-2O**/****	Box pedestal for 2 trace heaters		x	x	PS-120-2, sealing to trace heater box and lock nut. Excluding grommets.
<b>PS-120-3</b> 27-59G2-3O**/****	Box pedestal for 3 trace heaters		x	x	PS-120-3, sealing to trace heater box and lock nut. Excluding grommets.
<b>Grommet</b> 27-59G2-0O**/****	Combined blanking plug and trace heater grommet for PS-120-*		x	x	Part of kits and sperately supplied in bag.
<b>TG-P-1</b> 27-59G1-*P**/****	M20 trace heater gland in stainless steel or nickel plated brass		PSB		TG-P-1, P-grommet, earth lug and lock nut.
<b>TG-H-1</b> 27-59G1-*H**/****	M20 trace heater gland in stainless steel or nickel plated brass		MSB HSB		TG-H-1, H-grommet, earth lug and lock nut.
<b>FG-S-1</b> 27-59G5-*S**/****	M20 or M25 trace heater gland in stainless steel, brass or nickel plated brass		x	x	A8*F*/20S/M2*, earth tag, lock nut and PTFE sealing washer
<b>FG-S-C</b> 27-59G6-*S**/****	M20 or M25 trace heater gland in stainless steel, brass or nickel plated brass		x	x	A8CF*FM20*/20S/M2*, with M20 female conduit connection, earth tag, lock nut and PTFE sealing washer.
<b>Earth tag</b> Part of trace heater glands	M20 or M25 lug in brass for bonding entry devices to earth				Yellow green wire with M20 or M25 crimp lug and and conductor end crimp ferrule and crimp lug.

Description of kits or components supplied with installation enclosures (continued)

Name Type	Description	For use with			Contents (listed parts may be shown in other lines)
		Power	PSB MSB HSB	HSB+ HTSB	
Environmental protection Types of protection: Not required (trace heater end termination is Ex 60079-30-1)					
<b>PS-E</b> 27-59G3-10**/****	GRP environmental protection cap for trace heater end termination.		x	x	Part of kits.
Cold applied cable connection and end termination system Types of protection: Ex 60079-30-1					
<b>SP1</b> 27-59CX-9***/0000	Parallel trace heater silicone conductor insulation boot for power termination.		x	x	Green yellow tube and optional conductor sleeves and optional conductor end crimp ferrules.
<b>ES1</b> 27-59CX-9000/00**	Trace heater silicone end seal		x	x	Part of kits.
<b>RTV</b> Part of kits	Silicone selant				Part of kits.