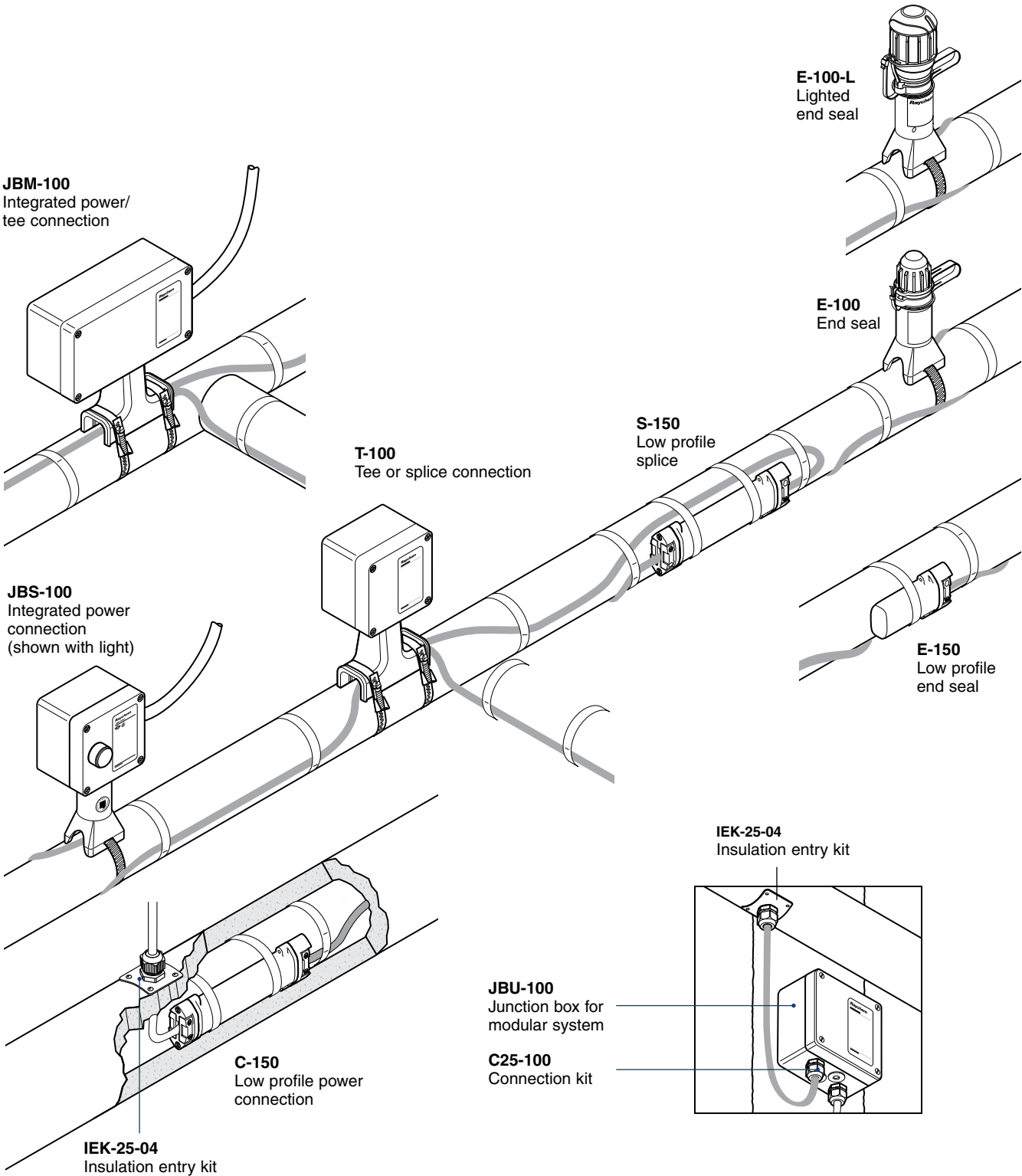


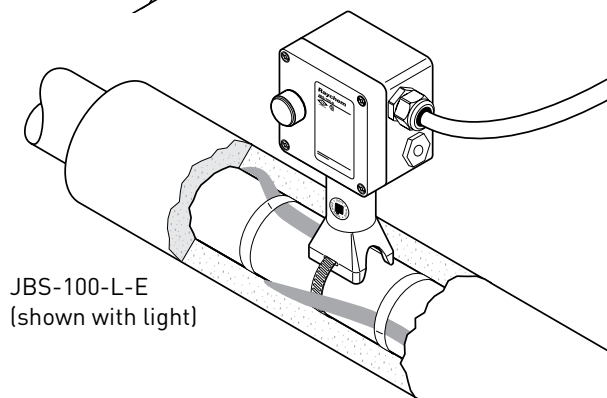
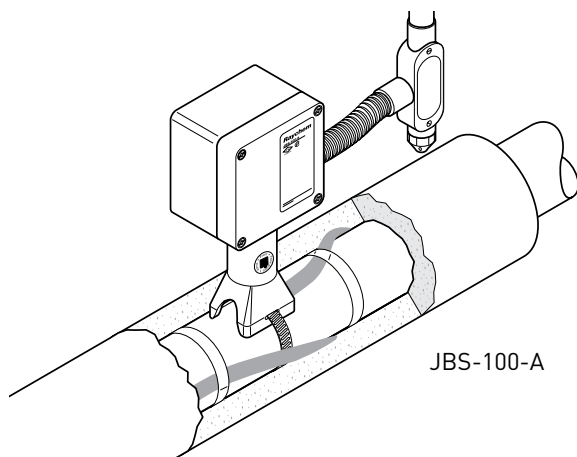
Component overview of self-regulating
and power-limiting heating cable system



Note: S-150, E-150 & C-150 Not available for VPL

Raychem JBS-100

SINGLE-ENTRY POWER CONNECTION WITH JUNCTION BOX



The JBS-100 kit is designed to connect power to one Raychem BTV, QTVR, XTV, KTV or VPL industrial parallel heating cable. It is approved by FM, CSA, and PTB for use in hazardous locations.

The JBS-100 integrates the functions of both connection kits and insulation entries. The rugged stand protects the heating cable and allows for up to 100 mm (4") of thermal insulation.

The core sealing boot does not require a heat gun or torch for the installation (no hot work permit necessary). The non-curing sealant (silicone free) in the boot allows easy installation and facilitates maintenance.

Spring-type terminals provide fast installation and safe, reliable, maintenance-free operation. This connection kit significantly reduces installation time. The kit is offered in three basic versions, customised for local installation practices. All kits are also available as a lighted version. These include a unique light module with a superbright LED that simply plugs into the terminals, and a lens in the lid. This provides indication that power is available in the box.

DESCRIPTION

JBS-100-A JBS-100-L-A

This kit is for use in North America and has one through-hole for use with 3/4" conduit.

JBS-100-E JBS-100-L-E

This kit is for use in Europe and provides two M25 threaded entries, one stopping plug, and one plastic power cable gland.

JBS-100-EP JBS-100-L-EP

This kit is for use in Europe and provides two M25 threaded entries, an earthing plate, and an external earthing stud. It is designed for use with armoured cables.

KIT CONTENTS







1 junction box with terminals
1 light module (for -L only)
1 stand
1 core sealer
1 green/yellow earthing sleeve
1 polywater sachet
1 cable tie

1 junction box with terminals
1 light module (for -L only)
1 stand
1 core sealer
1 green/yellow earthing sleeve
1 M25 gland for power cable
8–17 mm in diameter
1 M25 stopping plug
1 polywater sachet
1 cable tie

1 junction box with terminals,
earth plate, and stud
1 light module (for -L only)
1 stand
1 core sealer
1 green/yellow earthing sleeve
1 M25 stopping plug
1 polywater sachet
1 cable tie

APPROVALS

Hazardous locations

 	Class I, Div. 2, Groups A, B, C, D Class II, Div. 1 & 2, Groups E, F, G Class III	PTB 09 ATEX 1059 U Ex II 2G Ex e (e mb) II Ex II 2D Ex tD (tD mbD) A21 IP66 IECEX PTB 09.0037U Ex e (e mb) II Ex tD (tD mbD) A21 IP 66	PTB 09 ATEX 1059 U Ex II 2G Ex e (e mb) II Ex II 2D Ex tD (tD mbD) A21 IP66 IECEX PTB 09.0037U Ex e (e mb) II Ex tD (tD mbD) A21 IP 66
	 ⁽¹⁾ CLI, ZN1, AEx e II T* CLI, ZN1, AEx em II T* (for -L only)	 Ex e II T* Ex em II T* (for -L only)	 Ex e II T* Ex em II T* (for -L only)
	Ex e II T* Ex em II T* (for -L only)	DNV approval DNV Certificates No. E-11564 and No. E-11565	DNV approval DNV Certificates No. E-11564 and No. E-11565

*For T-rating, see heating cable or design documentation

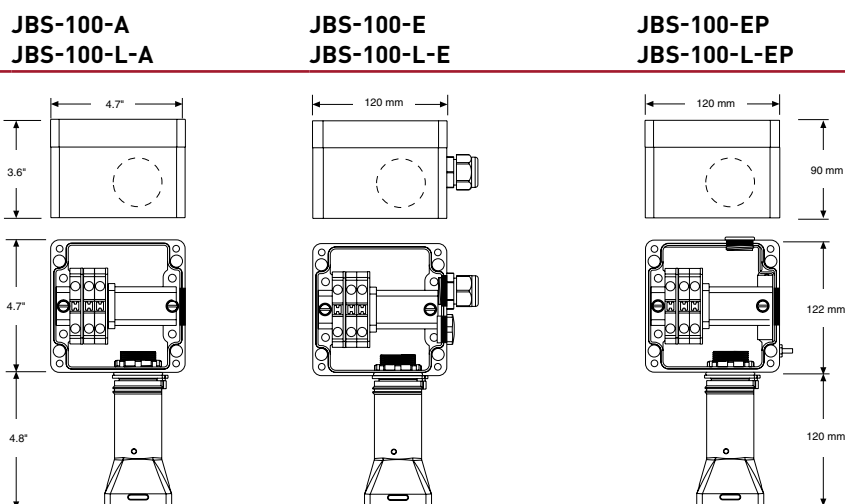
⁽¹⁾ Except VPL



(Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

DIMENSIONS (NOMINAL)



PRODUCT SPECIFICATIONS

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT, VPL-CT		
Ingress protection	NEMA Type 4X	IP66/IP67	IP66/IP67
Entries	1 x 3/4"	2 x M25 including power cable 2 x M25 gland for diameter 8 - 17 mm	
Ambient temperature range	-50°C to +40°C	-50°C to +56°C* (JBS-100-E) -40°C to +40°C (JBS-100-L-E)	-50°C to +56°C* (JBS-100-EP) -40°C to +40°C (JBS-100-L-EP)
*Extra conditions for safe use apply for ambient temperatures above +40°C. Please refer to the summary on page 179, the certificate or installation instructions for full details.			
Min. installation temperature	-50°C	-50°C	-50°C
Max. pipe temperature	Refer to heating cable specification		
Terminals	Spring-type terminals 2 line, 1 ground	Spring-type terminals 1 phase, 1 neutral, 1 earth	Spring-type terminals 1 phase, 1 neutral, 1 earth
Max. conductor size	8 AWG stranded	10 mm ² stranded, 10 mm ² solid	10 mm ² stranded, 10 mm ² solid
Max. operating voltage	277 Vac	480 Vac*	480 Vac*
*JBS-100-L-E and JBS-100-L-EP are limited to 254 Vac. Extra conditions for safe use apply for voltages higher than 254 Vac. Please refer to the summary on page 179, the certificate or installation instructions for full details.			
Max. continuous operating current	50 A heating cable circuit	40 A heating cable circuit	40 A heating cable circuit

MATERIALS OF CONSTRUCTION

Enclosure, lid, and stand	electrostatic charge-resistant glass-filled engineered polymer, black	electrostatic charge-resistant glass-filled engineered polymer, black	electrostatic charge-resistant glass-filled engineered polymer, black
Lid screws	Stainless steel	Stainless steel	Stainless steel
Lid gasket	Silicone rubber	Silicone rubber	Silicone rubber
Earth continuity plate	N/A	N/A	Steel, zinc plated, and blue chromated

OPTIONAL LED INDICATOR LIGHT

Colour	Red	Green	Green
Voltage rating	100-277 Vac	100-254 Vac	100-254 Vac
Power consumption	< 1 W	< 1 W	< 1 W

Ordering details

POWER CONNECTION

Part Description	JBS-100-A	JBS-100-E	JBS-100-EP
PN (Weight)	085947-000 (2.5 lb)	829939-000 (1.2 kg)	158251-000 (1.3 kg)

POWER CONNECTION WITH LIGHT

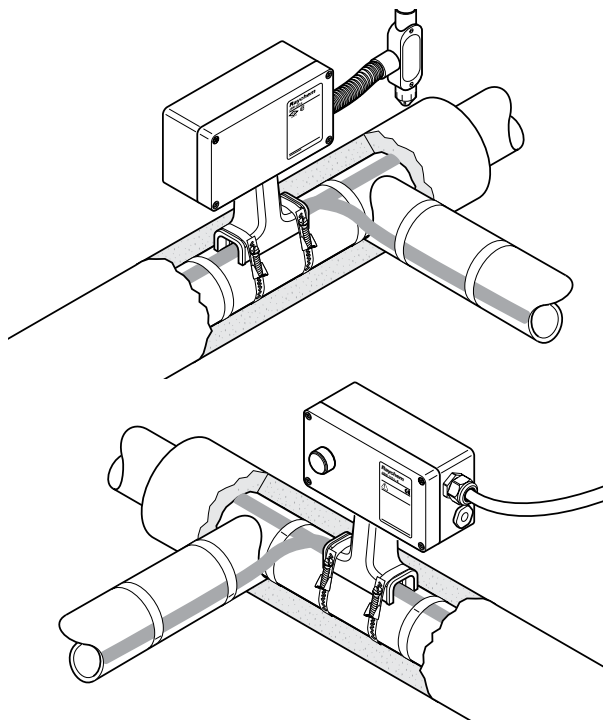
Part Description	JBS-100-L-A	JBS-100-L-E	JBS-100-L-EP
PN (Weight)	944699-000 (3.5 lb)	054363-000 (1.6 kg)	075249-000 (1.7 kg)

ACCESSORIES

Conduit drain 3/4"	JB-DRAIN-PLUG-3/4IN (prevents condensate from collecting in the box) ONLY FOR JBS-100-L-A		
Small pipe adaptor	JBS-SPA, required for pipes ≤ 1" (DN 25) E90515-000 (bag of 5 adaptors)		

Raychem JBM-100

MUTIPLE-ENTRY POWER/TEE CONNECTION WITH JUNCTION BOX



The JBM-100 kit is designed to connect power to up to three Raychem BTV, QTVR, XTV, KTV, or VPL industrial parallel heating cables and is approved by FM, CSA, and PTB for use in hazardous locations.

The JBM-100 integrates the functions of both connection kits and insulation entries. The rugged stand protects the heating cable and allows for up to 100 mm (4") of thermal insulation.

The core sealing boot does not require a heat gun or torch for the installation (no hot work permit necessary). The non-curing sealant (silicone free) in the boot allows easy installation and facilitates maintenance.

Spring-type terminals provide fast installation and safe, reliable, maintenance-free operation. This connection kit significantly reduces installation time.

The kit is offered in three basic versions, customised for local installation practices. All kits are also available as a lighted version. These include a unique light module with a superbright LED that simply plugs into the terminals, and a lens in the lid. This provides indication that power is available in the box.






DESCRIPTION	JBM-100-A JBM-100-L-A	JBM-100-E JBM-100-L-E	JBM-100-EP JBM-100-L-EP
	This kit is for use in North America and has one 3/4" through holes for use with 3/4" conduit. One stopping plug is supplied in the kit.	This kit is for use in Europe and provides two M25 threaded entries, one stopping plug, and one plastic power cable gland.	This kit is for use in Europe and provides two M25 threaded entries, an earthing plate, and an external earthing stud. It is designed for use with armoured cables.

KIT CONTENTS

1 junction box with terminals	1 junction box with terminals	1 junction box with terminals, earth continuity plate, and stud
1 light module (for -L only)	1 light module (for -L only)	1 light module (for -L only)
1 stand	1 stand	1 stand
3 core sealers	3 core sealers	3 core sealers
3 green/yellow earthing sleeve	3 green/yellow earthing sleeve	3 green/yellow earthing sleeve
1 3/4" stopping plug	1 M25 gland for power cable 8-17 mm in diameter	2 M25 stopping plugs
1 polywater sachet	1 M25 stopping plug	1 polywater sachet
1 spanner	1 polywater sachet	1 spanner
1 strain relief assembly	1 spanner	1 strain relief assembly
2 grommet plugs	1 strain relief assembly	2 grommet plugs
	2 grommet plugs	

APPROVALS

Hazardous locations

 	Class I, Div. 2, Groups A, B, C, D Class II, Div. 1 & 2, Groups E, F, G Class III	PTB 09 ATEX 1056U Ex II 2G Ex e (e mb) II Ex II 2D Ex tD (tD mbD) A21 IP66 IECEX PTB 09.0027U Ex e (e mb) II Ex tD (tD mbD) A21 IP 66	PTB 09 ATEX 1056U Ex II 2G Ex e (e mb) II Ex II 2D Ex tD (tD mbD) A21 IP66 IECEX PTB 09.0027U Ex e (e mb) II Ex tD (tD mbD) A21 IP 66
	⁽¹⁾ CLI, ZN1, AEx e II T* CLI, ZN1, AEx em II T* (for -L only)	 Ex e II T* Ex em II T* (for -L only)	 Ex e II T* Ex em II T* (for -L only)
	Ex e II T* Ex em II T* (for -L only)	DNV approval DNV Certificates No. E-11564 and No. E-11565	DNV approval DNV Certificates No. E-11564 and No. E-11565

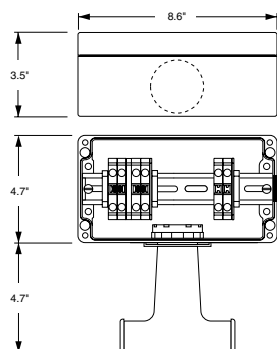
*For T-rating, see heating cable or design documentation

⁽¹⁾ Except VPL

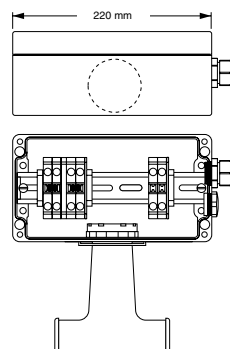
EAC (Russia, Kazakhstan, Belarus)
For other countries contact your local Pentair representative.

DIMENSIONS (NOMINAL)

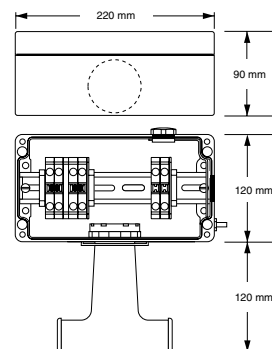
JBM-100-A
JBM-100-L-A



JBM-100-E
JBM-100-L-E



JBM-100-EP
JBM-100-L-EP



PRODUCT SPECIFICATIONS

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT, VPL-CT		
Ingress protection	NEMA Type 4X	IP66	IP66
Entries	1 x 3/4"	2 x M25 including power cable 2 x M25 gland for diameter 8-17 mm	
Ambient temperature range	-50°C to +40°C	-50°C to +56°C* (JBM-100-E) -40°C to +40°C (JBM-100-L-E)	-50°C to +56°C* (JBM-100-EP) -40°C to +40°C (JBM-100-L-EP)
*Extra conditions for safe use apply for ambient temperatures above +40°C. Please refer to the summary on page 179, the certificate or installation instructions for full details.			
Min. installation temperature	-50°C	-50°C	-50°C
Max. pipe temperature	Refer to heating cable specification		
Terminals	Spring-type terminals line, 2 ground	Spring-type terminals 2 phase, 2 neutral, 2 earth	Spring-type terminals 2 phase, 2 neutral, 2 earth
Max. conductor size	8 AWG stranded	10 mm ² stranded, 10 mm ² solid	10 mm ² stranded, 10 mm ² solid
Max. operating voltage	277 Vac	480 Vac*	480 Vac*
*JBM-100-L-E and JBM-100-L-EP are limited to 254 Vac. Extra conditions for safe use apply for voltages higher than 254 Vac. Please refer to the summary on page 179, the certificate or installation instructions for full details.			
Max. continuous operating current	50 A heating cable circuit	40 A heating cable circuit	40 A heating cable circuit

MATERIALS OF CONSTRUCTION

Enclosure, lid, and stand	Electrostatic charge-resistant glass-filled engineered polymer, black	electrostatic charge-resistant glass-filled engineered polymer, black	electrostatic charge-resistant glass-filled engineered polymer, black
Lid screws	Stainless steel	Stainless steel	Stainless steel
Lid gasket	Silicone rubber	Silicone rubber	Silicone rubber
Earth continuity plate	N/A	N/A	Steel, zinc plated, and blue chromated

OPTIONAL LED INDICATOR LIGHT

Colour	Red	Green	Green
Voltage rating	100-277 Vac	100-254 Vac	100-254 Vac
Power consumption	< 1 W	< 1 W	< 1 W

Ordering details**POWER CONNECTION**

Part Description	JBM-100-A	JBM-100-E	JBM-100-EP
PN (Weight)	179955-000 (4.3 lb)	831519-000 (1.9 kg)	986415-000 (2.1 kg)

POWER CONNECTION WITH LIGHT

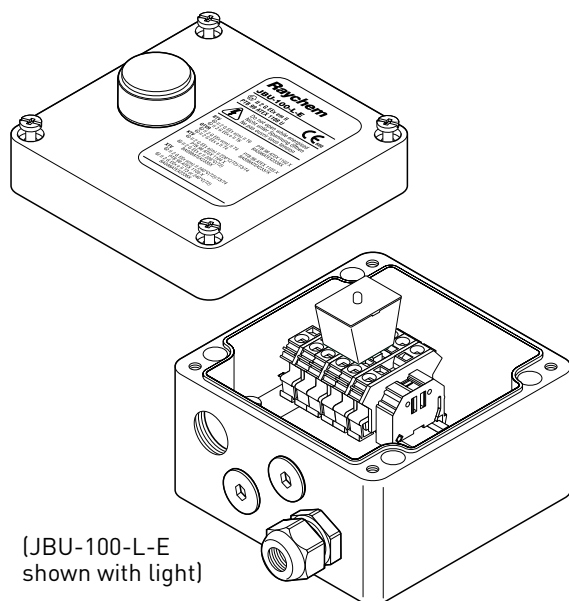
Part Description	JBM-100-A	JBM-100-E	JBM-100-EP
PN (Weight)	656081-000 (5.3 lb)	395855-000 (2.3 kg)	300273-000 (2.5 kg)

ACCESSORIES

Conduit drain 3/4"	JB-DRAIN-PLUG-3/4IN (prevents condensate from collecting in the box) ONLY FOR JBM-100-L-A		
Small pipe adaptor	JBM-SPA, required for pipes ≤ 1" (DN 25) D55673-000 (bag of 5 adaptors)		

Raychem JBU-100

JUNCTION BOX FOR MODULAR SYSTEM



The JBU-100 kit is designed to connect power to up to three Raychem BTV, QTVR, XTV, KTV or VPL industrial parallel heating cables and is approved by PTB for use in hazardous locations.

Innovative Spring-type terminals provide fast installation and safe, reliable, maintenance-free operation.

The box is part of the modular component system, it allows for maximum flexibility and can be either wall or pipe mounted.

Connection kits (M25) and insulation entry kits have to be ordered separately. The box is offered in two basic versions customised to local installation practices.

All kits are also available as a lighted version (-L). These include a unique light module with a superbright green LED that simply plugs into the terminals, and a lens in the lid. This provides indication that power is available in the box.

DESCRIPTION

JBU-100-E JBU-100-L-E

This box is for use in Europe and provides four M25 threaded entries, stopping plugs and one plastic power cable gland.

JBU-100-EP JBU-100-L-EP

This box is for use in Europe and provides four M25 threaded entries, an earthing plate and an external earth stud. It is designed for use with armoured power cables.

KIT CONTENTS

- 1 junction box with terminals
- 1 light module (for -L only)
- 1 M25 gland for 8-17 mm diameter power cable
- 2 M25 stopping plugs

- 1 junction box with terminals with earth plate and external earth stud
- 1 light module (for -L only)
- 2 M25 stopping plugs

APPROVALS

Hazardous locations

PTB 09 ATEX 1061 U

Ex II 2G Ex e (e mb) II

Ex II 2D Ex tD (tD mbD) A21 IP66

IECEX PTB 09.0039U

Ex e (e mb) II

Ex tD (tD mbD) A21 IP 66

PTB 09 ATEX 1061 U

Ex II 2G Ex e (e mb) II

Ex II 2D Ex tD (tD mbD) A21 IP66

IECEX PTB 09.0039U

Ex e (e mb) II

Ex tD (tD mbD) A21 IP 66



Ex e II T*

Ex em II T* (for -L only)



ex e II T*

Ex em II T* (for -L only)

DNV approval

DNV Certificates No. E-11564 and No. E-11565

DNV approval

DNV Certificates No. E-11564 and No. E-11565

*For T-rating, see heating cable or design documentation

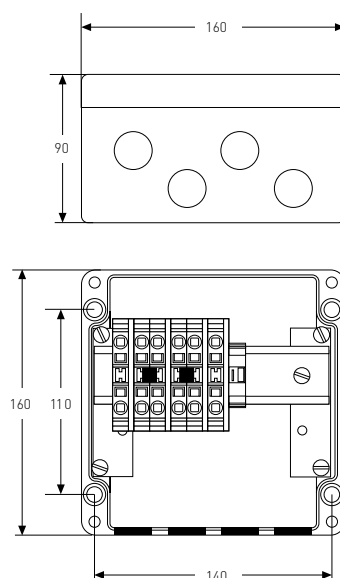


(Russia, Kazakhstan, Belarus)

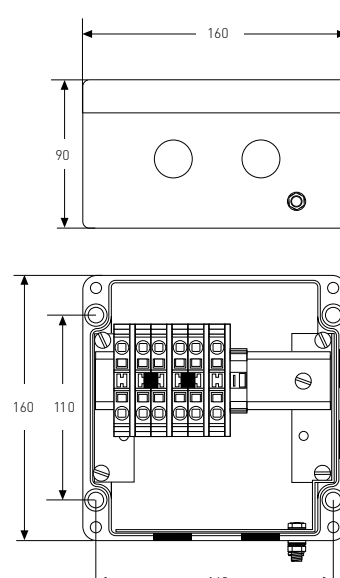
For other countries contact your local Pentair representative.

DIMENSIONS (NOMINAL)

JBU-100-E JBU-100-L-E



JBU-100-EP JBU-100-L-EP



PRODUCT SPECIFICATIONS

Ingress protection	IP66	IP66
Entries	4 x M25	4 x M25
Ambient temperature range	-50°C to +56°C* (JBU-100-E) -40°C to +40°C (JBU-100-L-E)	-50°C to +56°C* (JBU-100-EP) -40°C to +40°C (JBU-100-L-EP)
	*Extra conditions for safe use apply for ambient temperatures above +40°C. Please refer to the the summary on page 179, the certificate or installation instructions for full details.	
Terminals	Spring-type terminals	Spring-type terminals
	2 phase, 2 neutral, 2 ground	2 phase, 2 neutral, 2 ground
Max. conductor size	10 mm ² stranded, 10 mm ² solid	10 mm ² stranded, 10 mm ² solid
Max. operation voltage	480 Vac	480 Vac
Max. current rating	40 A	40 A

MATERIALS OF CONSTRUCTION

Enclosure, lid	Electrostatic charge-resistant glass-filled engineered polymer, black	Electrostatic charge-resistant glass-filled engineered polymer, black
Lid screws	Stainless steel	Stainless steel
Lid gasket	Silicone rubber	Silicone rubber
Earth continuity plate	N/A	Steel, zinc plated, and blue chromated

OPTIONAL LED INDICATOR LIGHT

Colour	Green	Green
Voltage rating	100-254 Vac	100-254 Vac
Power consumption	< 1 W	< 1 W

Ordering details

JUNCTION BOX

Part Description	JBU-100-E	JBU-100-EP
PN (Weight)	051976-000 (1.7 kg)	243948-000 (1.8 kg)

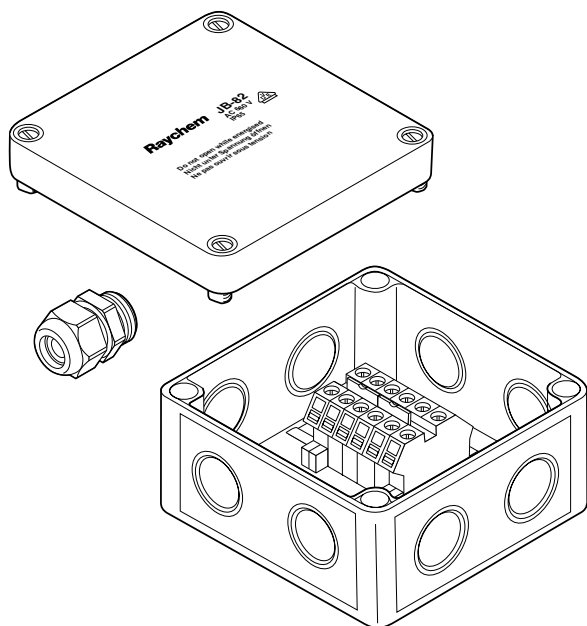
JUNCTION BOX WITH LIGHT

Part Description	JBU-100-L-E	JBU-100-L-EP
PN (Weight)	069262-000 (2.1 kg)	113974-000 (2.2 kg)

ACCESSORIES

Heating cable connection kits	C25-100, C25-21, CCON25-100	C25-100, C25-21, CCON25-100, C25-100-METAL
Insulation entry kit	IEK-25-04 or IEK-25-PIPE	IEK-25-04 or IEK-25-PIPE
Power cable gland	GL-36-M25 (included)	GL-38-M25-METAL (optional)
Junction box support bracket (optional)	SB-100, SB-101	SB-100, SB-101

Raychem JB-82 JUNCTION BOX



The JB-82 is a standard, non-hazardous polycarbonate junction box.

It may be used to make a power connection, splice, powered splice, powered tee or simple tee, for use with Raychem industrial parallel heating cables.

Up to four heating cables or three heating cables and the appropriate size power cable can be accommodated through the four entries and connected to the rail mounted terminals.

For pipe mounting, it is recommended that this box is used with a Raychem support bracket.

ENCLOSURE

JB-82

Area of use	Ordinary (indoors and outdoors)
Protection	IP66
Entries	4 M20/25
Exposure temperature	-35°C to +115°C
Base	Grey glass filled polycarbonate
Lid	Grey polycarbonate
Lid gasket	Foamed polyurethane

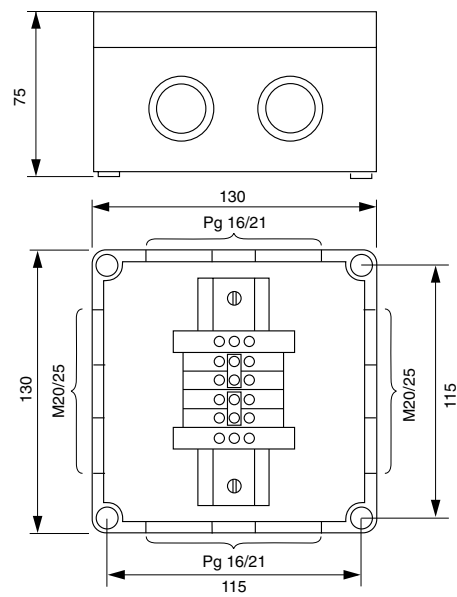
PHASE TERMINALS

Conta-Clip RK6-10	Din rail mounted
Voltage rating	750 Vac
Max. conductor size	0.5-10 mm ² (solid and stranded)
Current rating	61 A
Quantity	Two cross-connected groups of two

EARTH TERMINALS

	2 Conta-Clip SL10/35
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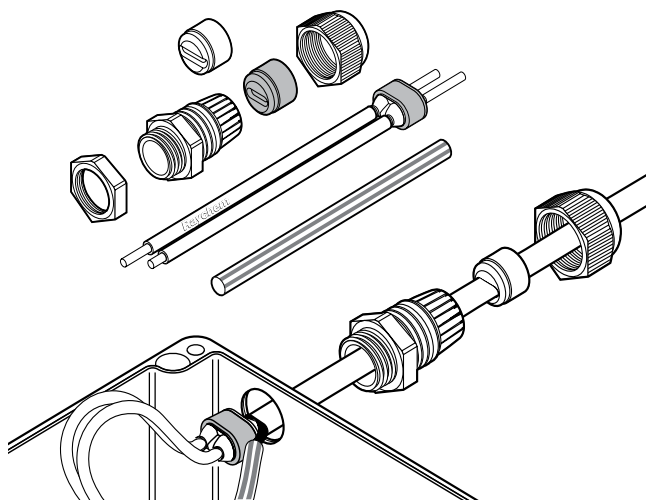
DIMENSIONS (IN MM)



MOUNTING	
JB-82	
Through holes moulded in the base of the junction box	
Centres	115 x 115 mm
Size	5 mm diameter
Cable gland	Polyamide with locknut for cable diameters from 9 to 16 mm
ACCESSORIES	
Junction box support bracket	SB-100, SB-101, SB-110, SB-111
ORDERING DETAIL	
Part description	JB-82
PN (Weight)	535679-000 (0.47 kg)

Raychem C25-100

COLD APPLIED CONNECTION KIT



This connection kit is designed for terminating all Raychem BTV, QTVR, XTV, KTV and VPL industrial parallel heating cables to a junction box, whilst maintaining electrical insulation of the heating cable conductors and core. It is approved for use in hazardous areas.

The core sealing boot does not require a heat gun or torch for the installation (no hot work permit necessary). The non-curing sealant (silicone free) allows easy installation and facilitates maintenance purposes.

Two grommets supplied in this kit enable the gland to maintain optimum sealing under various ambient conditions. An additional locknut is provided for unthreaded entries.

APPLICATION

Connection kit for BTV, QTVR, XTV, KTV and VPL parallel heating cables.

KIT CONTENTS

1 gland, 2 grommets, 1 locknut, 1 core sealer, 1 green/yellow tube,
1 installation instruction (multilingual)

APPROVALS

PTB 09 ATEX 1063 U

 II 2G Ex e II

 II 2D Ex tD A21 IP66

IECEX PTB 09.0040U

Ex e II

Ex tD A21 IP66

DNV Certificate No. E-11564 and E-11565

ERC (Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

PRODUCT SPECIFICATION

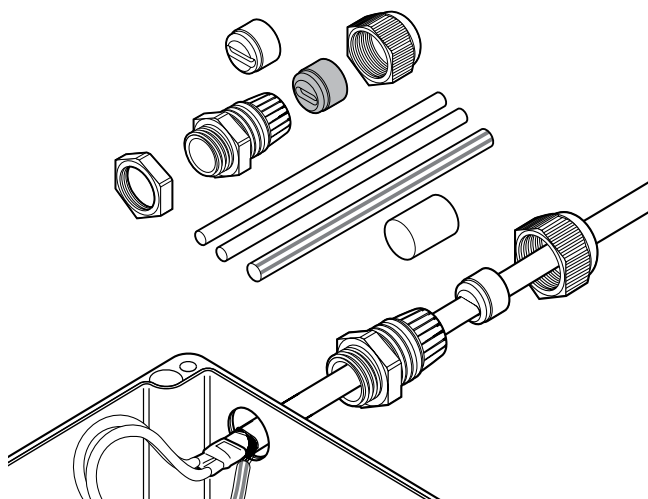
Area classification	Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust)
Type	Ordinary
Type	Cold applied
Thread size	M25 x 1.5
Min. ambient temperature	-50°C
Max. exposure temperature (gland)	110°C

ORDERING DETAILS

Part description	C25-100
PN (Weight)	263012-000 (0.07 kg)

Raychem C25-21

HEAT-SHRINK CONNECTION KIT



This connection kit is designed for terminating all Raychem BTV, QTVR, XTV, KTV and VPL industrial parallel heating cables to a junction box, whilst maintaining electrical insulation of the heating cable conductors and core.

The sealing of the heating cable core is provided by Raychem heat-shrinkable sleeves. Two grommets supplied in this kit enable the gland to maintain optimum sealing under various ambient conditions.

An additional locknut is provided for unthreaded entries.

APPLICATION

Connection kit for BTV, QTVR, XTV, KTV and VPL parallel heating cables


KIT CONTENTS


1 gland,
2 grommets,
1 locknut,
1 green/yellow tube, heat-shrinkable sleeves for core sealing,
1 installation instruction (multilingual)

APPROVALS

The kit is certified as part of the system approval of the various heating cables.

BTV	QTVR	XTV	KTV	VPL
Baseefa06ATEX0183X	Baseefa06ATEX0185X	Baseefa06ATEX0184X	Baseefa06ATEX0186X	Baseefa06ATEX0188X
IECEx BAS 06.0043X	IECEx BAS 06.0045X	IECEx BAS 06.0044X	IECEx BAS 06.0046X	IECEx BAS 06.0048X

 II 2G Ex e II II 2D Ex tD A21 IP66

 Ex e II Ex tD A21 IP66



(Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

PRODUCT SPECIFICATION

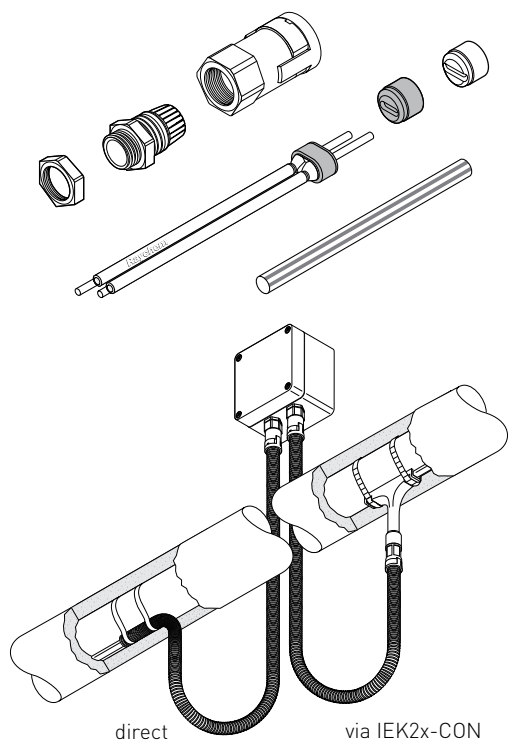
Area classification	Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust) Ordinary
Type	Heat-shrinkable
Thread size	M25 x 1.5
Min. ambient temperature	-55°C
Max. exposure temperature (gland)	110°C
IP ingress protection rating	IP66

ORDERING DETAILS

Part description	C25-21
PN (Weight)	311147-000 (0.06 kg)

Raychem CCON25-100

COLD APPLIED CONDUIT CONNECTION KIT



This connection kit is designed for terminating all Raychem BTV, QTVR, XTV, KTV and VPL parallel industrial heating cables to a junction box, whilst maintaining electrical insulation of the heating cable conductors and core as well as providing a reliable and sealed connection to a conduit system. It is approved for use in hazardous locations.

The conduit system will provide supplementary mechanical protection of the heating cable between a junction box and the entry into the insulation. The conduit connection is fast and reliable and allows simple installation whilst maintaining an IP66 seal. The kit can be used with various types of conduits which can be cut-to-length as required in the field. The core sealing boot for the heating cable does not require a heat gun or torch for the installation (no need for a hot work permit). The non-curing sealant (silicone free) allows easy installation and facilitates maintenance purposes.

The conduit and eventually required insulation entry kit needs to be purchased separately.



APPLICATION

Connection kit with conduit adaptor for BTV, QTVR, XTV, KTV and VPL parallel industrial heating cables

KIT CONTENTS

1 gland body,	1 core sealer,
1 conduit adaptor including safety retention clip,	1 green/yellow tube,
2 grommets,	1 installation instruction (multilingual)
1 locknut,	

APPROVALS

SEV 05 ATEX 0147U
 II 2G Ex e IIC Ta -55...+40°C
 II 2D Ex tD A21 IP66 Ta - 55...+40°C

EAC (Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

PRODUCT SPECIFICATION

Area classification	Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust)
Thread size	M25 x 1.5
Conduit compatibility	ND 23 mm, Pentair conduits type CCON25-C...
Ambient temperature	-55°C to +40°C
IP ingress protection rating	IP66
Surface resistance	< 1GΩ according to the requirements of EN 60079-0 and EN 61241-0 for use in hazardous areas

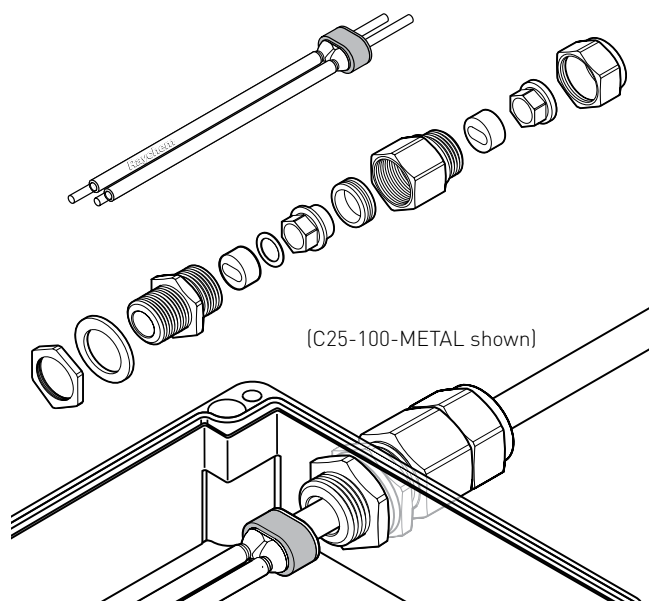
ORDERING DETAILS

Part description	CCON25-100
PN (weight)	1244-003272 (0.075 kg)

ACCESSORIES

	For suitable conduits and insulation entry kits refer to the datasheet for CCON2x-C...
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Raychem C25-100-METAL AND C3/4-100-METAL COLD APPLIED METAL CONNECTION KIT



These connection kits are designed for terminating all Raychem BTV, QTVR, XTV, KTV and VPL industrial parallel heating cables to a junction box, whilst maintaining electrical insulation of the heating cable conductors and core.

The braid is directly connected to the metal gland body. The connection kits can be used with metal boxes or plastic boxes with internal earthing plate. They are approved for use in hazardous areas.

The core sealing boot does not require a heat gun or torch for the installation (no hot work permit necessary). The non-curing sealant (silicone free) allows easy installation and facilitates maintenance purposes.

The C25-100-METAL kit is designed for use with M25 entries, the C3/4-100-METAL for 3/4" NPT entries.

A metal locknut is provided for earth bonding in plastic junction boxes.



APPLICATION

Connection kit for BTV, QTVR, XTV, KTV and VPL parallel heating cables

KIT CONTENTS

1 gland,
2 grommets,
1 locknut and sealing washer (only M25),
1 core sealer,
1 installation instruction (multilingual).

APPROVALS

Sira 01ATEX1270X
 II 2GD Ex d IIC Ex tD A21 IP68
 II 2GD Ex e IIC Ex tD A21 IP68
IECEX SIR 05.0020X
Ex d IIC Ex e II Ex tD A21 IP6X
(complete kit also referred in heating cable system approvals)



(Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

SPECIFICATION FOR GLAND

	C25-100-METAL	C3/4-100-METAL
Area classification	Hazardous Zone 1 and 2 (Gas), Zone 21 and 22 (Dust), ordinary In- and outdoors	Hazardous Zone 1 and 2 (Gas), Zone 21 and 22 (Dust), ordinary In- and outdoors
Thread size	M25 x 1.5	3/4" NPT
Gland material	Brass	Brass
Min. ambient temperature	-60°C	-60°C
Max. exposure temperature	180°C	180°C

ORDERING DETAILS

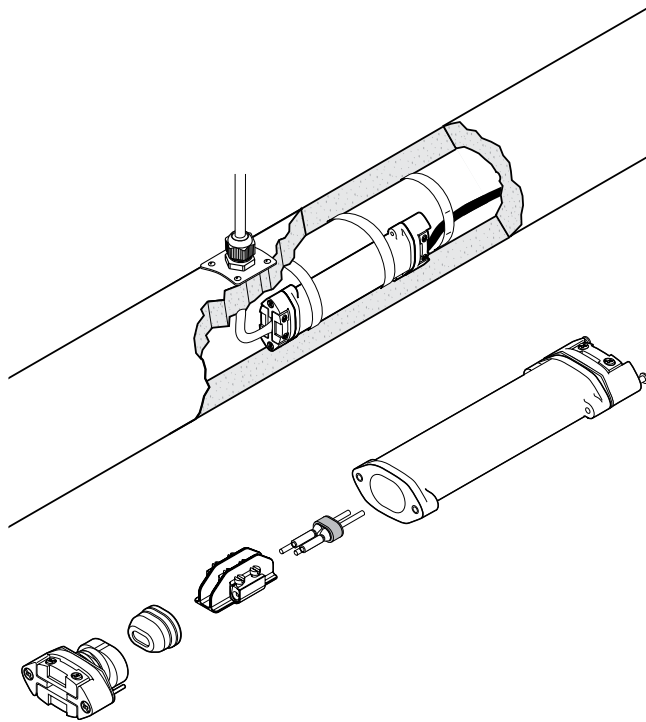
Part description	C25-100-METAL	C3/4-100-METAL
PN (Weight)	875016-000 (0.31 kg)	440588-000 (0.3 kg)

ACCESSORIES

Part description	C25-100-METAL-NP	C3/4-100-METAL-NP
PN (Weight)	1244-002296 (0.31 kg)	1244-001350 (0.3 kg)

Raychem C-150-E

COLD APPLIED LOW PROFILE POWER CONNECTION



The C-150-E is a cold applied low profile power connection. The kit enables in line connection of Raychem industrial heating cables, BTV, QTVR, XTV and KTV, to a flexible power cable. It can be used in applications with temperature ratings from -50°C to 215°C. It is approved for use in hazardous areas.

A Raychem supplied power cable such as C-150-PC may be used or any suitable standard industrial power cable type 3 x 1.5 mm² or 3 x 2.5 mm² with stranded copper conductors and an outer insulation jacket. The power cable is connected by means of screw terminals to the conductors and the braid of the heating cable.

C-150-E is used as connector:

- where connection to a junction box is difficult e.g. because of space limitation
- on instrument lines or loading arms
- where installation of "under insulation" components is preferred
- as a cost effective solution for short heat-tracing lines as an alternative for JBS-100.

DESCRIPTION

Cold applied low profile splice for connection of BTV, QTVR, XTV and KTV heating cables to a power cable

KIT CONTENTS

- 1 splice housing assembly including
 - 1 sealing grommet assembly for heater
 - 1 pressure plate/strain relief assembly
- 1 core sealer for heater
- 1 spacer including screw terminal
- 1 sealing grommet assembly for the power cable
- 1 pressure plate/strain relief assembly for the power cable
- 1 identification label
- 1 installation instruction

APPROVALS



Ex e II

PTB 09 ATEX 1068 U

Ex II 2G Ex e II

Ex II 2D Ex tD A21 IP66

IECEX

PTB 09.0043U

Ex e II

Ex tD A21 IP66

DNV approval

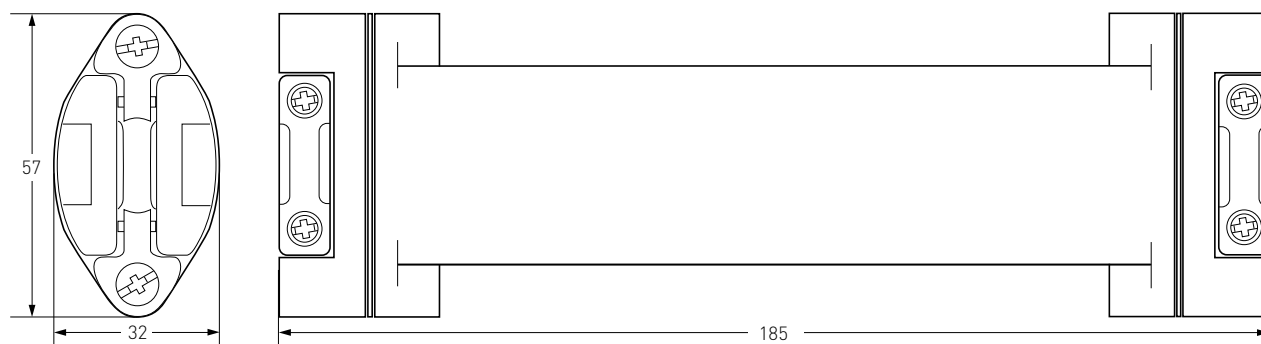
DNV Certificate No. E-11564 and E-11565



(Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

DIMENSIONS (IN MM)



PRODUCT SPECIFICATIONS

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT						
Power cable capability	For use with Raychem's high temperature power cable C-150-PC or for use with other flexible cable such as: H07RN-F, Silicone insulated cables. Minimum and maximum installation and operating temperatures, given by cable manufacturer, have to be considered by designer and installer.						
Power cable dimension	-> outer diameter range 7.8 mm - 12.5 mm -> 3 stranded copper conductors (3 x 2.5 mm ² or 3 x 1.5 mm ²) -> temperature range depending on the application						
Maximum power cable length	Depending on power cable voltage drop and maximum current for Raychem power cable C-150-PC (3 x 2.5 mm ²): <table border="1"> <tr> <td>CB 16 A</td><td>40 m</td></tr> <tr> <td>CB 20 A</td><td>32 m</td></tr> <tr> <td>CB 25 A</td><td>25 m</td></tr> </table>	CB 16 A	40 m	CB 20 A	32 m	CB 25 A	25 m
CB 16 A	40 m						
CB 20 A	32 m						
CB 25 A	25 m						
Ingress protection	IP66						
Minimum installation temperature	-50°C						
Maximum pipe temperature	refer to heating cable specification						
Maximum operating voltage	277 Vac						
Maximum current rating	depending on the power cable used and maximum current						

CONSTRUCTION MATERIALS

Housing, end plate, shim and spacer	Engineering polymers, black
Sealing grommets	Silicone rubber
Screws, compression spring	Stainless steel

ORDERING DETAILS

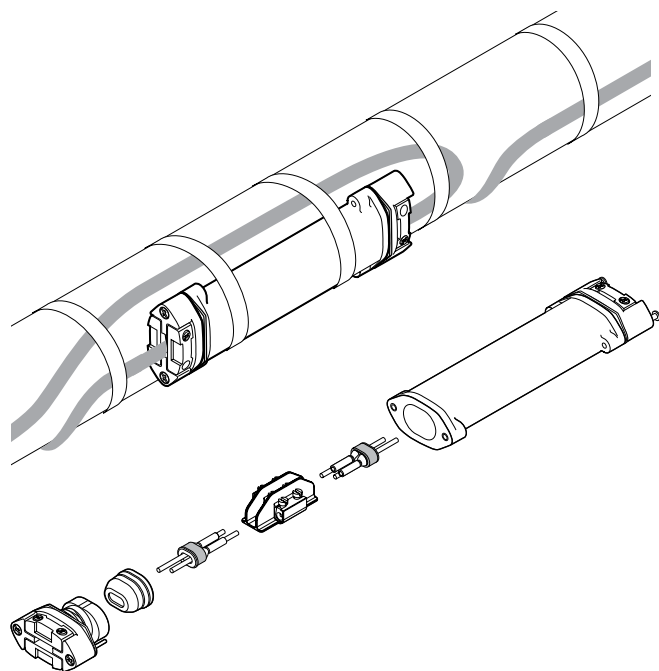
Part description	C-150-E
PN (Weight)	073704-000 (0.4 kg/0.8 lb)
Pack size	1 bag

ACCESSORIES

Power cable	C-150-PC 3-core flexible power cable for connection to C-150-E, 3 x 2.5 mm ² , silicone insulation, temperature range: -40°C to +180°C, short term: 215°C
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Raychem S-150

COLD APPLIED UNDER INSULATION LOW PROFILE SPLICE



The S-150 is a cold applied low profile splice for in-line connection. This universal kit fits with all Raychem industrial heating cables, BTV, QTVR, XTV and KTV, meaning simplified product selection and reduced inventory to stock. It can be used in applications with temperatures ranging from -50°C to 215°C. It is approved for use in hazardous areas.

The unique design of the S-150 suits the demanding requirements of the industrial environment. The low profile housing can be installed on pipes and other surfaces. Spring loaded grommets make a first seal to maintain a water tight connection while the non-curing sealant (silicone free) used in Raychem's core sealer adds a second seal, providing additional protection. The rugged construction of the splice makes it resistant to impact and suitable for high temperature variations and aggressive chemical exposure. The connection is made using screw terminals. The splice is re-enterable. The S-150 is a safe under the insulation in-line splice that can be relied upon over time.

The splice requires no heat source for installation, making maintenance work fast and easy. Each kit contains all the necessary materials to do one in-line splice connection.




DESCRIPTION


Cold-applied in-line splice kit for use with BTV, QTVR, XTV and KTV heating cables.

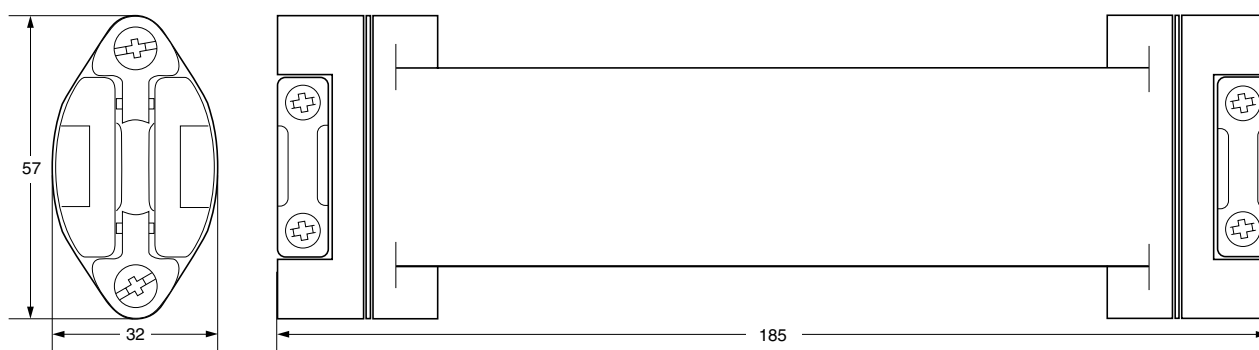
KIT CONTENTS

1 splice housing
2 sealing grommets
2 core sealers
1 spacer including screw terminals
1 identification label

APPROVALS

 Ex e II
PTB 09 ATEX 1068 U
 II 2G Ex e II
 II 2D Ex tD A21 IP66
IECEX
PTB 09.0043U
Ex e II
Ex tD A21 IP66
DNV approval
DNV Certificate No. E-11564 and E-11565

 (Russia, Kazakhstan, Belarus)
For other countries contact your local Pentair representative.

DIMENSIONS (IN MM)**PRODUCT SPECIFICATIONS**

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT
Ingress protection	IP66
Minimum installation temperature	-50°C
Maximum pipe temperature	Refer to heating cable specification
Connection method	Screw terminals
Maximum operating voltage	277 Vac
Maximum current rating	40 A heating cable circuit for PTB

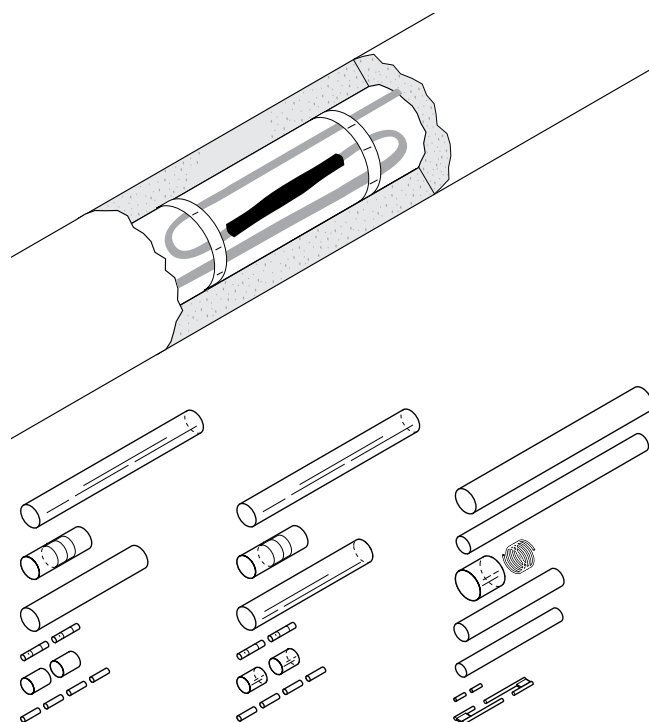
MATERIALS OF CONSTRUCTION

Housing, end plate, shim and spacer	Engineering polymers, black
Sealing grommets	Silicone rubber
Screws, compression spring	Stainless steel

ORDERING DETAILS

Splice connection	S-150
PN (Weight)	497537-000 (0.4 kg/0.8 lb.)

Raychem S-19, S-21 AND S-69 HEAT-SHRINK UNDER INSULATION IN-LINE SPLICE KIT



These splice kits are designed for the in-line joining of Raychem selfregulating heating cables.

The kit S-19 is designed for use with BTV heating cables, the S-21 for QTVR and the S-69 is for use with XTV and KTV heating cables.

All kits are approved for use in hazardous areas.


The splice kits employ easy to use heat-shrinkable tubing with an adhesive, that when heated forms a semi-flexible moisture proof encapsulation.

Electrical continuation is maintained via crimps for the conductors and a solder connection for the braid of the heating cable.

Due to its low profile design the finished splice can be installed under the insulation, directly on the pipe.

APPLICATION	S-19	S-21	S-69
	In-line splice kit for BTV heating cables	In-line splice kit for QTVR heating cables	In-line splice kit for XTV and KTV heating cables

KIT CONTENTS	S-19	S-21	S-69
	heat-shrinkable adhesive coated sleeves insulation sleeves solder sleeves crimps	heat-shrinkable adhesive coated sleeves insulation sleeves solder sleeves crimps	heat-shrinkable sleeves adhesive liners insulation sleeves high temperature solder crimps

APPROVALS
 II 2G/D Ex e II by PTB and Baseefa Ltd. according to EN/IEC 60079-30-1 DNV Certificate No. E-11564 (S-19 & S-21) DNV Certificate No. E-11565 (S-69)

EAC (Russia, Kazakhstan, Belarus)
 For other countries contact your local Pentair representative.

PRODUCT SPECIFICATIONS	S-19	S-21	S-69
Max. exposure temperature	85°C	135°C	160°C
Maximum current rating	40 A	40 A	40 A
Dielectric strength	1.3 – 3.5 MV/m	2.2 MV/m	> 6 MV/m
Volume resistivity	10 ¹² Ω cm	10 ¹³ Ω cm	10 ¹⁰ Ω cm
Final dimensions	length approx. 180 mm	length approx. 180 mm	length approx. 300 mm diameter approx. 20 mm

INSTALLATION DETAILS

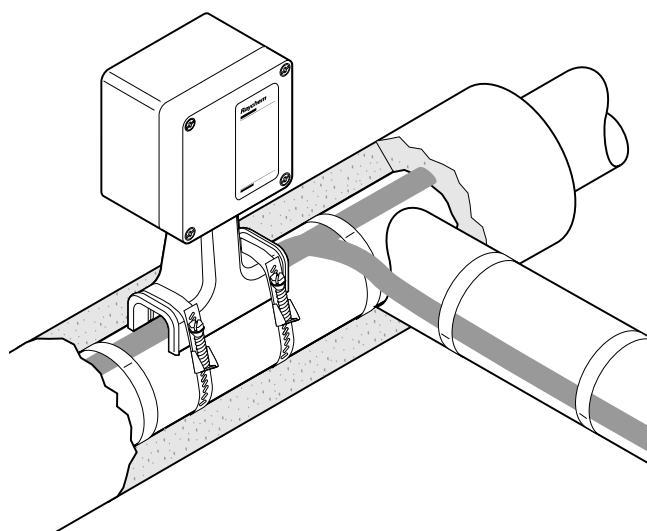
Heat shrinkable tubing	125°C and 175°C	125°C and 175°C	200°C
Solder	120°C	120°C	approx. 240°C
Gas torch or equivalent	min. 1460 W hot air gun	min. 1460 W hot air gun	min. 1460 W hot air gun

ORDERING DETAILS

Part description	S-19	S-21	S-69
PN (Weight)	669854-000 (0.05) kg	358745-000 (0.05) kg	933309-000 (0.11) kg

Raychem T-100

SPLICE OR TEE CONNECTION KIT



The T-100 is an above-insulation splice or tee kit, designed for use with up to three Raychem BTV, QTVR, XTV, KTV or VPL industrial parallel heating cables. It is approved for use in hazardous locations.

The rugged stand protects the heating cable and allows for up to 100 mm (4") of thermal insulation. The core sealing boot does not require a heat gun or torch for the installation (no hot work permit necessary).

The non-curing sealant (silicone free) in the boot allows easy installation and facilitates maintenance. The T-100 significantly reduces installation and maintenance time and effort.

DESCRIPTION

This kit is an above-insulation splice/tee, appropriate for use worldwide with no requirements for local customization.

KIT CONTENTS



- 1 splice/tee enclosure and lid
- 1 stand assembly
- 3 core sealers
- 3 green/yellow earthing sleeve
- 3 compression crimps
- 3 crimping insulating tubes
- 1 polywater sachet
- 1 spanner
- 1 strain relief assembly
- 2 grommet plugs
- 1 installation instruction

APPROVALS

Hazardous locations



Class I, Div. 2, Groups A, B, C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

PTB 09 ATEX 1043 U
 II 2 G Ex e II
 II 2 D tD A21 IP66
IECEX PTB 09.0023U
Ex e II
Ex tD A21 IP66

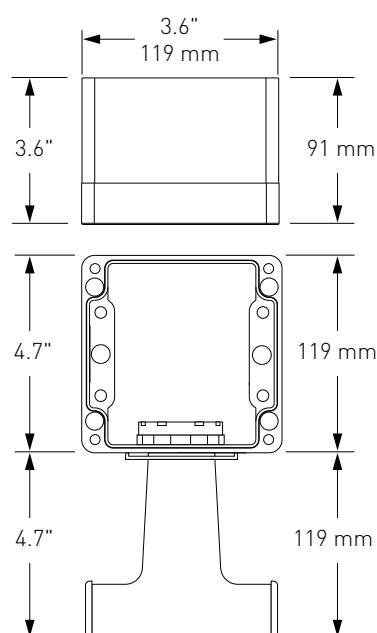


Class I, Zone 1, AEx e IIC

DNV approval
DNV Certificates No. E-11564 and No. E-11565



(Russia, Kazakhstan, Belarus)
For other countries contact your local Pentair representative.

DIMENSIONS (IN MM)**PRODUCT SPECIFICATIONS**

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT, VPL
Ingress protection	NEMA Type 4X IP66 and IP67
Min. installation temperature	-50°C
Max. pipe temperature	Refer to heating cable specification
Ambient temperature range:	-50°C to +56°C
Max. operating voltage	277 Vac for FM, CSA, 480 Vac for PTB
Max. continuous operating current	50 A heating cable circuit for FM, CSA 40 A heating cable circuit for PTB

MATERIALS OF CONSTRUCTION

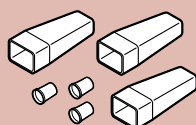
Enclosure, lid, and stand	Electrostatic charge-resistant glass-filled engineered polymer, black
Lid screws	Stainless steel
Lid gasket	Silicone rubber

ORDERING DETAILS

Part description	T-100
PN (Weight)	447379-000 (2.5 lb /1.2 kg)

ACCESSORIES

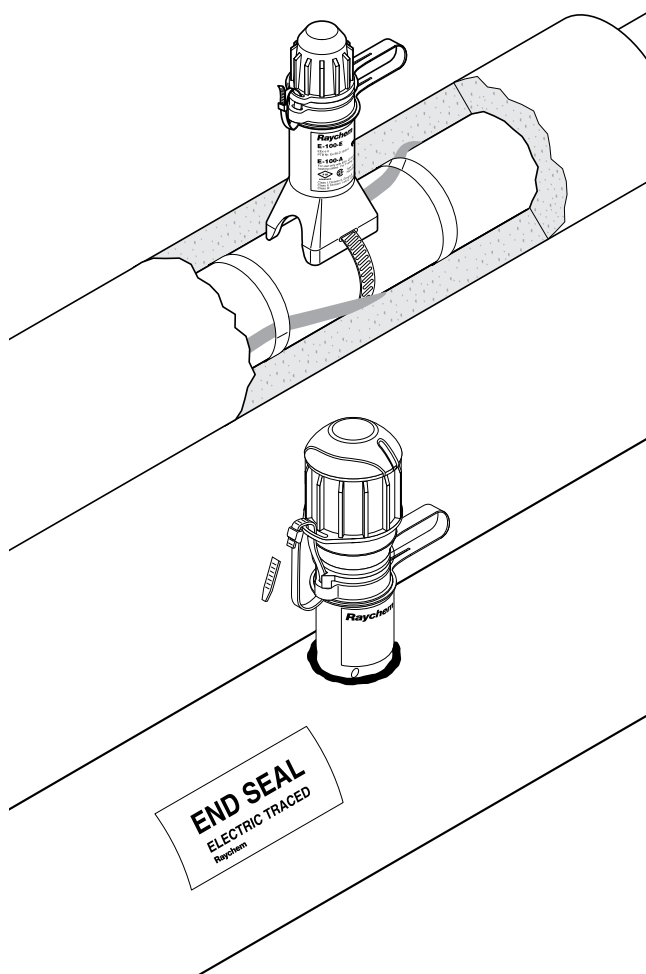
Crimp tool	T-100-CT (not included in the kit, equivalent to Panduit: CT-1570)
PN	954799-000
Spare crimps and insulating tubes	T-100-CRIMP-KIT (spare part only)



PN	577853-000
Small pipe adaptor	JBM-SPA, required for pipes ≤ 1" (DN 25), D55673-000 (bag of 5 adaptors)

Raychem E-100-E AND E-100-L-E

END SEAL AND LIGHTED END SEAL



Both the E-100-E and E-100-L-E are accessible, re-entrable end seals, the E-100 without a light, the E-100-L with a signal light. Both end seals can be used with all Raychem BTV, QTVR, XTV, KTV or VPL industrial parallel heating cables. They are approved for use in hazardous areas. They are extremely rugged - made of a strong, moulded part with 4 mm wall thickness.

The heating cable is firmly kept in place by the integral strain relief.

Sealing is done twice. First a dry compartment for the heating cable is created, then a boot filled with a non-curing sealant (silicone free) is placed over the end of the heating cable inside the compartment.

The end seals are mounted on the pipe and project through the cladding.

The light module of the E-100-L-E uses an array of super-bright green LEDs for long life and excellent visibility from almost any angle. The robust industrial-grade electronics are encapsulated to reliably seal out moisture.

Extra sealant filled boots for the E-100-E end seal can be ordered separately.

KIT CONTENTS

E-100-E

- 1 end seal
- 1 cable tie
- 1 polywater sachet
- 1 installation instruction

E-100-L-E




- 1 end seal with indicator light
- 1 cable tie
- 1 polywater sachet
- 2 insulated parallel crimps
- 1 core sealer
- 1 installation instruction

APPROVAL DATA






Area of use	Hazardous or ordinary (indoors and outdoors)
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APPROVALS

E-100-E

PTB 09 ATEX 1060 U
 II 2G Ex e II
 II 2D Ex tD A21 IP66
 IECEx PTB 09.0038U
 Ex e II
 Ex tD A21 IP66
 Ex e II T*


E-100-L-E

Sira 14ATEX3015X
 II 2GD Ex e mb IIC T* Gb IP66
 IECEx SIR 14.0007X
 Ex e mb IIC T* GB IP66
 Ex tb IIIC T***°C Db
 09-IEx-0004X
 09-IEx-0005X
 09-IEx-0006X
 09-IEx-0007X
 Ex em IIC T*Gb (2)
 CLI, ZN1, AEx e mb IIC T* Gb (1)
 ZN21 AEx tb IIIC T*
 Ex e mb IIC T* Gb
 Ex tb IIC T***°C Db

DNV Certificate No. E-11564 and E-11565 DNV Certificate No. E-11564 and E-11565

*For T-rating, see heating cable or design documentation

(1) Except VPL (2) Except KTV

 (Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

PRODUCT SPECIFICATIONS

E-100-E

E-100-L-E

Max. pipe temperature	Refer to heating cable specification (absolute maximum is 260°C)	
Max. operating voltage	480 V*	277 V
	*Extra conditions for safe use apply for voltages above 277 V. Please refer to the certificate or installation instructions for full details.	
Ambient temperature range	-50°C to +56°C*	-40°C to +40°C
	*Extra conditions for safe use apply for ambient temperatures above +40°C. Please refer to the summary on page 179, the certificate or installation instructions for full details.	
Min. installation temperature	-50°C	-40°C
Overall height	171 mm approx.	197 mm approx.
Outer diameter	46 mm approx. Usable with up to 100 mm thermal insulation	66 mm approx.
Ingress protection	IP66	IP66
Impact resistance	EN 60079-30-1, ≥ 7 joules	EN 60079-30-1, ≥ 7 joules
UV stability	No degradation after > 1000 h	No degradation after > 1000 h
Solvent resistance	Excellent	Excellent
Strain relief	> 250 N	> 250 N

LIGHT SOURCE

Type	Green LEDs
Voltage rating range	110-277 Vac, 50/60 Hz
Power consumption	< 2 W
Electromagnetic immunity/emissions	Complies with IEC61000-6 and IEC61000-4

INSTALLATION DATA

Tools required	Cable knife, wire cutters, screwdriver	Cable knife, wire cutters, screwdriver, crimp tool (Panduit-CT-100), long nose pliers
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E-100-E AND E-100-L-E

ORDERING DETAILS

End seal

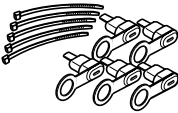
Part description	E-100-E	E-100-L-E
PN (Weight)	101255-000 (0.22 kg)	P000001583 (0.63 kg)
	Requires one pipe strap (not supplied)	Requires one pipe strap (not supplied)

ACCESSORIES

Small pipe adaptor	JBS- SPA, required for pipes ≤ 1" (DN 25), E 90515-000 (bag of 5 adaptors)
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SPARE PART

Boot pack for E-100-E



Part description	E-100-BOOT-5-PACK
PN (Weight)	281053-000 (140 g)
Pack size	5 sealant filled boots and 5 cable ties

Replacement indicator light for E-100-L	
Part description:	E-100-LR-E
PN	P000001586

SUMMARY OF SPECIAL CONDITIONS FOR SAFE USE WHEN USING JBS, JBM, JBU AND E-100 AT AMBIENT TEMPERATURES ABOVE +40°C OR VOLTAGES ABOVE 254 VAC.

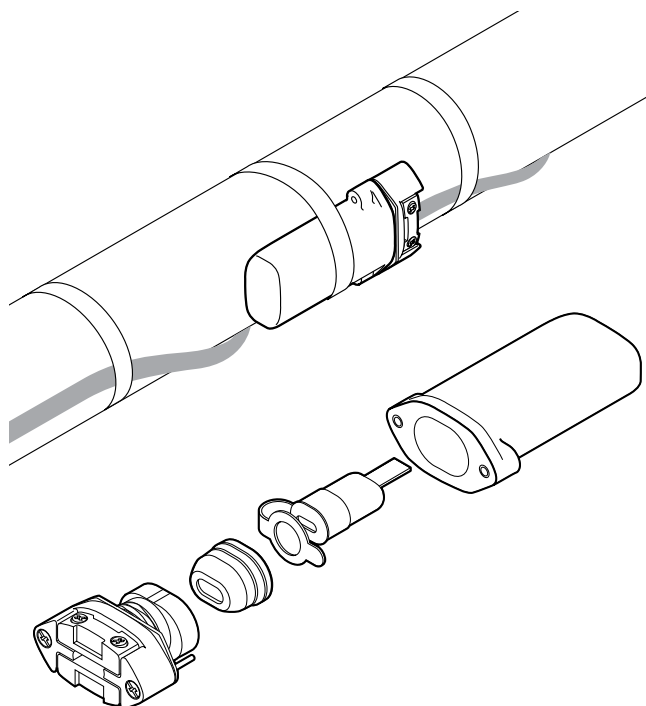
Type	Ambient temperature range and rated Voltage range	Special conditions of safe use
JBS-100-E JBM-100-E	-50°C to +40°C and/or rated voltages < 254 V	No additional requirements. Please refer to certificate.
JBS-100-L-E JBM-100-L-E	-40°C to +40°C and/or rated voltages <254 V	No additional requirements. Please refer to certificate: PTB9ATEX1059U
JBS-100-E JBM-100-E	-50°C to +56°C and/or rated voltages as per table below:	Additional conditions for use in environments with ambient temperatures exceeding +40°C and/ or rated voltages of 254 V <ul style="list-style-type: none"> • Use a power cable with continuous temperature resistance of minimum +90°C • Use a metallic power cable gland(s) (GL-33 or GL-34)
	BTV, QTVR, XTV, KTV Max. 277V	
	VPL1 Max. 110V	
	VPL2 Max. 230 / 254 V	
	VPL4 Max. 480 V	

Type	Ambient temperature range and rated Voltage range	Special conditions of safe use
JBU-100-E	-50°C to +40°C and/or rated voltages < 254 V	No additional requirements. Please refer to certificate.
JBU-100-L-E	-40°C to +40°C and/or rated voltages <254 V	No additional requirements. Please refer to certificate.
JBU-100-E	-50°C to +56°C and/or rated voltages as per table below:	Additional conditions for use in environments with ambient temperatures exceeding +40°C and/ or rated voltages of 254 V <ul style="list-style-type: none"> • Use a power cable with continuous temperature resistance of minimum +90°C • Use a metallic power cable gland(s) (GL-33 or GL-34) • Use a metallic connection kit for heating cable connection
	BTV, QTVR, XTV, KTV Max. 277V	
	VPL1 Max. 110V	
	VPL2 Max. 230 / 254 V	
	VPL4 Max. 480 V	

Type	Ambient temperature range and rated Voltage range	Special conditions of safe use
E-100-E	-50°C to +56°C and/or rated voltages as per table below:	Additional conditions for use in environments with ambient temperatures exceeding +40°C. Use metal tag plate with approval information (LAB-E-100-HT)
	BTV, QTVR, XTV, KTV Max. 275V	
	VPL1 Max. 110V	
	VPL2 Max. 230 / 254 V	
	VPL4 Max. 480V	
E-100-L-E	-40°C to +56°C and/or rated voltages as per table below:	Additional conditions for use in environments with ambient temperatures exceeding +40°C. Use metal tag plate with approval information (LAB-E-100-HT)
	BTV, QTVR, XTV, KTV Max. 275V	
	VPL1 Max. 110V	
	VPL2 Max. 230 / 254 V	
	VPL4 Not Possible	

Raychem E-150

LOW PROFILE END SEAL - COLD APPLIED 



The E-150 is a cold applied low profile end seal. This universal end seal is designed to fit with all Raychem industrial self-regulating heating cables; BTV, QTVR, XTV and KTV meaning simplified product selection and reduced inventory to stock. It can be used in applications with temperatures ranging from -50°C to 215°C . It is approved for use in hazardous areas.

The unique design of the E-150 suits the demanding requirements of the industrial environment. The low profile housing can be installed on pipes and other surfaces. A spring loaded grommet makes a first seal to maintain a water tight connection while the non-curing sealant (silicone free) used in Raychem's core sealing boot adds a second seal, providing additional protection. The rugged construction of the end seal makes it resistant to impact and suitable for high temperature variations and aggressive chemical exposure. The end seal is re-enterable. The E-150 design provides a safe under the insulation end seal that can be relied upon over time.

The end seal requires no heat source for installation, making maintenance fast and easy. Each kit contains all the necessary materials to do one end termination.

DESCRIPTION

Cold applied end seal for use with BTV, QTVR, XTV and KTV heating cables.

KIT CONTENTS

1 end seal enclosure housing
1 sealing grommet assembly
1 core sealing boot
1 identification label
1 installation instruction

APPROVALS

Hazardous locations

PTB 09 ATEX 1068 U
 ⓧ II 2G Ex e II
 ⓧ II 2D tD A21 IP66
 IECEX PTB 09.0043U
 Ex e II
 Ex tD A21 IP66
 DNV Certificates No. E-11564 and No. E-11565



Class I, Div. 2, Groups A, B, C, D
 Class II, Div. 2, Groups F, G
 Class III



CLI, ZN2, AEx e II T⁽¹⁾



Ex e II T⁽¹⁾

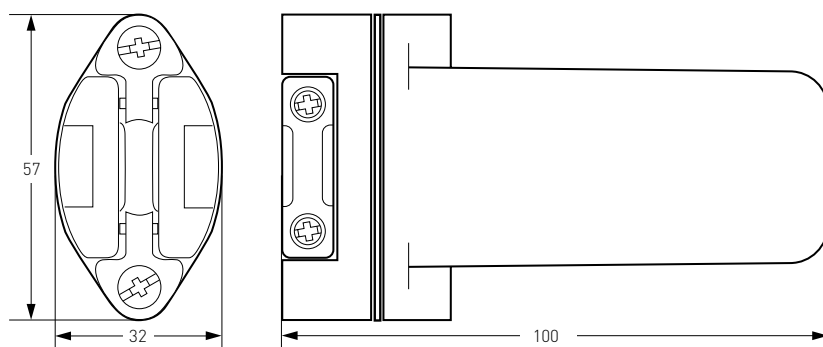
⁽¹⁾ For T-rating, see heating cable or design documentation



(Russia, Kazakhstan, Belarus)

For other countries contact your local Pentair representative.

DIMENSIONS (IN MM)



PRODUCT SPECIFICATIONS

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT
Ingress protection	IP66
Minimum installation temperature	-50°C
Maximum pipe temperature	Refer to heating cable specification
Operating voltage	277 V

MATERIALS OF CONSTRUCTION

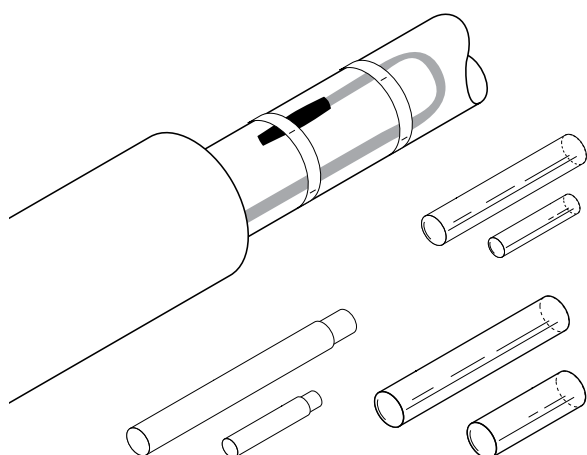
Enclosure, end plate, and shim	Engineering polymers, black
Sealing grommet and core sealer	Silicone rubber
Screws, compression spring, reinforcement plate	Stainless steel

ORDERING DETAILS

End seal	E-150
PN (Weight)	979099-000 (0.3 kg/0.6 lb.)

Raychem E-06, E-19 AND E-50

HEAT-SHRINK UNDER INSULATION END SEAL KITS



These end seal kits are designed for the termination of Raychem's industrial heating cables.


The E-06 is designed for use with BTV- and QTVR heating cables, the E-19 is designed for use with XTV- and KTV heating cables, and the E-50 is for use with VPL heating cables. All kits are approved for use in hazardous areas.

The end seal kits E-06 and E-19 employ easy to use heat-shrinkable tubing with an adhesive, that when heated forms a semi-flexible moisture proof encapsulation. The end seal kit E-50 employs high temperature heat-shrinkable tubing with a plastic melt liner that when heated forms a semi-flexible moisture proof encapsulation. Due to the low profile design the finished termination can be installed directly on the pipe.

One end seal kit is required for each termination.

APPLICATION	E-06	E-19	E-50
	End seal for BTV and QTVR self-regulating heating cables	End seal for XTV and KTV self-regulating heating cables	End seal for VPL power-self-regulating heating cables

KIT CONTENTS	E-06	E-19	E-50
	Heat-shrinkable Adhesive coated sleeves Installation instruction	Heat-shrinkable sleeves Adhesive liners Installation instruction	Heat-shrinkable sleeves Installation instruction

APPROVALS
ATEX certified by Baseefa and PTB  II 2 GD Ex e II Ex tD A21 IP66 The temperature class depends on the design and the type of heating cable the end seal is used with DNV Certificate No. E-11564 DNV Certificate No. E-11565 EAC (Russia, Kazakhstan, Belarus) For other countries contact your local Pentair representative.

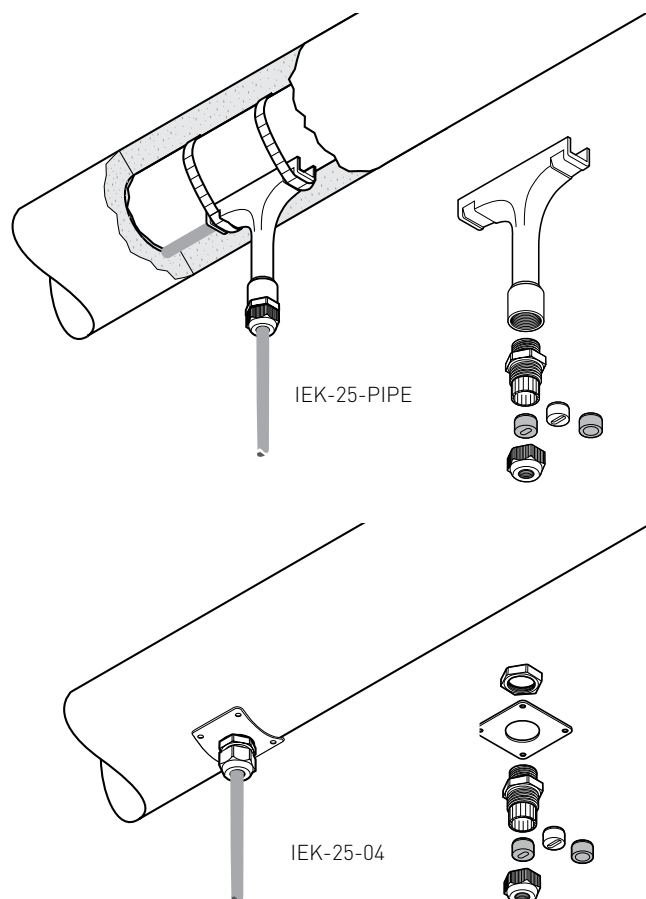
PRODUCT SPECIFICATIONS	E-06	E-19	E-50
Max. exposure temperature	175°C	200°C	260°C
Dielectric strength	2.2 MV/m	> 6 MV/m	> 40 MV/m
Volume resistivity	10 ¹³ Ω cm	10 ¹⁰ Ω cm	10 ¹⁸ Ω cm
Final dimensions	length approx. 120 mm	length approx. 135 mm	length approx. 120 mm

INSTALLATION DETAILS	E-06	E-19	E-50
Heat shrinkable tubing	175 °C	200 °C	327 °C
Gas torch or equivalent	min. 1460 W hot air gun	min. 1460 W hot air gun	min. 3000 W hot air gun*

ORDERING INFORMATION	E-06	E-19	E-50
Part description	E-06	E-19	E-50
PN (Weight)	582616-000 (0.03 kg)	090349-000 (0.05 kg)	1244-002492 (0.06 kg)

*The installation of the E-50 requires a high power heat gun and an experienced installer.

Raychem IEK-25-PIPE AND IEK-25-04 INSULATION ENTRY KIT



Insulation entry kits are designed to protect cables when passing through the thermal insulation cladding. The IEK's are suitable for all type of parallel heating cables as well as power cables. Insulation entry kits may be used in hazardous and non hazardous areas.

The gland and the grommet provided in the kit provide strain relief and environmental sealing to avoid water ingress in the insulation.

The IEK-25-PIPE contains a protective guiding tube which is fixed to the pipe and allows the heat-tracing installation to be completed independently from the insulation work. The IEK-25-04 contains a stainless steel plate which can be screwed to the cladding.

Insulation entry kits can be used for installations on pipes, tanks and vessels etc.

APPLICATION

IEK-25-PIPE

Insulation entry kit for pipe mounting for heating- and power cables with an outside diameter in the range of 8 to 17 mm.
Kit contains 1 pc.

IEK-25-04

Insulation entry kit for pipes, tanks and vessels. Usable for all types of polymer heating cables and power cables with an outside diameter in the range of 8 to 17 mm.
Kit contains 1 pc.

KIT CONTENTS

1 x polymer "T" Tube
1 x plastic gland (M25) with round hole grommet for power cables
1 x bag with 2 silicon grommets for heating cables

1 x stainless steel fixing plate
1 x plastic gland (M25) with round hole grommet for power cables
1 x bag with 2 silicon grommets for heating cables
1 x locknut

IEK-25-PIPE AND IEK-25-04

PRODUCT SPECIFICATIONS	IEK-25-PIPE	IEK-25-04
Max. exposure temp.		
gland	110°C	110°C
tube	260°C	–
APPROVALS		
	–	DNV Certificate No. E-11564 and E-11565
	<div><div>EAC</div><div>(Russia, Kazakhstan, Belarus) For other countries contact your local Pentair representative.</div></div>	
DIMENSIONS		
	Height 135 mm, width 120 mm	Plate 60 x 60 mm (22SWG)
ORDERING INFORMATION		
Part number (Weight)	1244-001050 (0.13 kg)	332523-000 (0.06 kg)