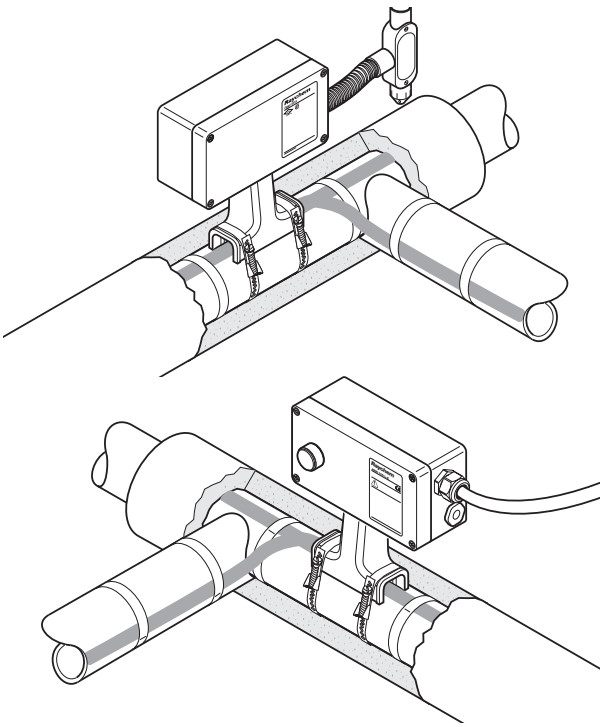
JBM-100

MUTIPLE-ENTRY POWER/TEE CONNECTION WITH JUNCTION BOX



The nVent RAYCHEM JBM-100 kit is designed to connect power to up to three nVent 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. There is also a connection kit with drain plug available.

DESCRIPTION

JBM-100-A JBM-100-L-A	JBM-100-E JBM-100-L-E JBM-100-D-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 light module (for -L only)
- 1 stand
- 3 core sealers
- 3 green/yellow earthing sleeve
- 1 3/4" stopping plug
- 1 polywater sachet
- 1 spanner
- 1 strain relief assembly
- 2 grommet plugs

- 1 junction box with terminals
- 1 light module (for -L only)
- 1 stand
- 3 core sealers
- 3 green/yellow earthing sleeve
- 1 M25 gland for power cable 8-15 mm (temperature range -55°C / 70°C) in diameter
- 1 M25 stopping plug
- 1 polywater sachet
- 1 spanner
- 1 strain relief assembly
- 2 grommet plugs
- 1 ATEX/IECEx Certified drainplug (for JBM-100-D-E only)

- 1 junction box with terminals, earth continuity plate, and stud
- 1 light module (for -L only)
- 1 stand
- 3 core sealers
- 3 green/yellow earthing sleeve
- 2 M25 stopping plugs
- 1 polywater sachet
- 1 spanner
- 1 strain relief assembly
- 2 grommet plugs

APPROVALS (**)

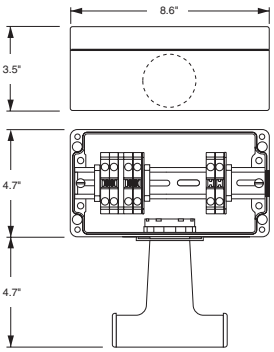
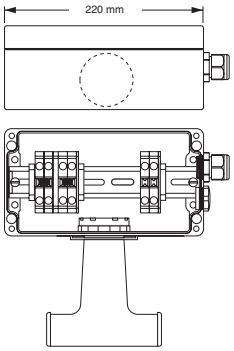
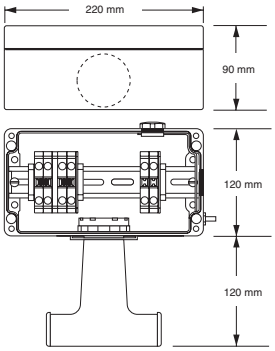
Hazardous locations

FM APPROVED -WS	Class I, Div. 2, Groups A, B, C, D Class II, Div. 1 & 2, Groups E, F, G Class III	PTB 09 ATEX 1056U RU C-BE.ИМ43.B.01712 Ex e IIC Gb U Ex tb IIIC Db U Ex e mb IIC Gb U Ex tb mb IIIC Db U Ta -55°C...+40°C IP66 IECEx PTB 09.0027U Ex eb mb IIC T* Gb Ex mb tb IIIC T* Db	PTB 09 ATEX 1056U II 2 G Ex eb mb IIC T* Gb III 2 D Ex mb tb IIIC T* Db IECEx PTB 09.0027U Ex eb mb IIC T* Gb Ex mb tb IIIC T* Db
FM APPROVED	(1) CLI, ZN1, AEx e II T* CLI, ZN1, AEx em II T* (for -L only)	-WS Ex e II T* Ex em II T* (for -L only)	-WS Ex e II T* Ex em II T* (for -L only)
-WS	Ex e II T* Ex em II T* (for -L only)	DNV approval DNV-GL TAE00000TV and DNV-GL TAE00000TU	DNV approval DNV-GL TAE00000TV and DNV-GL TAE00000TU

*For T-rating, see heating cable or design documentation
(1) Except VPL
(**) Localized versions may exist with limited approvals and different part numbers. Contact your local sales representative.

	JBM-100-A JBM-100-L-A	JBM-100-E JBM-100-L-E	JBM-100-EP JBM-100-L-EP
		EAC Ex RU C-BE.ИМ43.B.01712 Ex e IIC Gb U Ex tb IIIC Db U Ex e mb IIC Gb U Ex tb mb IIIC Db U Ta -55°C...+40°C IP66	EAC Ex RU C-BE.ИМ43.B.01712 Ex e IIC Gb U Ex tb IIIC Db U Ex e mb IIC Gb U Ex tb mb IIIC Db U Ta -55°C...+40°C IP66

DIMENSIONS (NOMINAL)

	JBM-100-A JBM-100-L-A	JBM-100-E JBM-100-L-E JBM-100-D-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 gland for diameter 8-17 mm	2 x M25
Ambient temperature range	−50°C to +40°C	−50°C to +56°C* (JBM-100-E and JBM-100-D-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 136, 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 136, 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-L-A	JBM-100-L-E	JBM-100-L-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-L-A	JBM-100-L-E	JBM-100-L-EP
PN (Weight)	656081-000 (5.3 lb)	395855-000 (2.3 kg)	300273-000 (2.5 kg)

POWER CONNECTION WITH DRAIN PLUG

Part Description	JBM-100-D-E
PN (Weight)	1244-021056 (2.1 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)
Glands for power cables	GL-55-M25 hazardous area approved gland for cables 8-15 mm (temperature range -55°C/70°C) GL-36-M25 hazardous area approved gland for cables 8-17.5 mm (temperature range -20°C/70°C)

(**) Localized versions may exist with limited approvals and different part numbers. Contact your local sales representative.

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