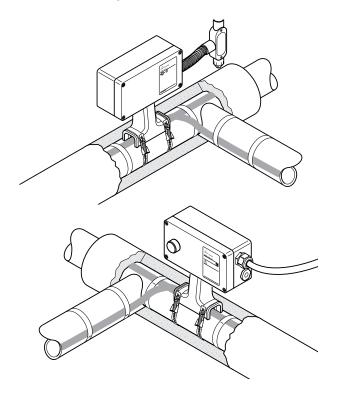


# CONNECT AND PROTECT

# Mutiple-Entry Power/Tee Connection with Junction Box €x



The nVent RAYCHEM JBM-100 kit is designed to connect power to up to three nVent RAYCHEM BTV, QTVR, XTV, KTV, HTV, 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-E JBM-100-A JBM-100-L-E JBM-100-EP JBM-100-L-A JBM-100-D-E JBM-100-L-EP This connection system is certified for use This connection system is certified for This connection system is certified for in North America and has one 3/4" through use in IEC regions and provides two M25 use in IEC regions and provides two M25 holes for use with 3/4" conduit. One threaded entries, one stopping plug, and threaded entries, an earthing plate, and an stopping plug is supplied in the kit. one plastic power cable gland. external earthing stud. It is designed for use with armoured cables.

#### **KIT CONTENTS**

	Janetion box with terrinials
1	light module (for -L only)
1	stand
3	core sealers

junction hav with terminals

- 3 green/yellow earthing sleeve
- 1 3/4" stopping plug
- 1 polywater sachet
- 1 spanner
- 1 strain relief assembly
- 2 grammat pluga
- 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)

- 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

RAYCHEM-DS-EU1396-JBM100-EN-2103

# **Hazardous locations**

JBM-100 JBM-100		JBM-100-E JBM-100-L-E JBM-100-D-E			JBM-100-EP JBM-100-L-EP
			PTB 20 ATEX 1008 U  II 2 G Ex eb mb IIC Gb  II 2 D Ex tb mb IIIC Db  IECEx PTB 20.0014U  Ex eb mb IIC Gb  Ex tb mb IIIC Db		
			ERC Ex	Ex e IIC Gb Ex e mb IIC Ta -55°C Ta -55°C 000 "Tex/	E.MIO62.B.00054/18 b U Ex tb IIIC Db U C Gb U Ex tb mb IIIC Db U .+56°C IP66 .+40°C IP66 (-L versions only) 1MПОРТ" C-BE.ИМ43.B.01712
			When use DNV cert When use DNV cert	ed with BTV, ificate numbed with XTV, ificate number	use on ships and mobile offshore units. QTVR Heating systems: per TAE00000TU KTV Heating systems: per TAE00000TV
			(2)	BR-EX e II BR-Ex em I	II
FM (1)(2)	Zone 1, AEx eb IIC T* Gb Zone 21, AEx tb IIIC T*°C Db Zone 1, AEx eb mb IIC T* Gb Zone 21, AEx tb IIIC T*°C Db (for -L only)		<b>(2)</b>	Ex eb IIC T Ex tb IIIC T	
<b>(2)</b>	Ex eb IIC T* Gb Ex tb IIIC T*°C Db  Ex eb mb IIC T* Gb Ex tb mb IIIC T*°C Db (for -L only)			one 2 GROUI Per C22.1 Tal	
APPROVED (1)(2)	, , , ,				
<b>(2)</b>	Groups E, F, G Class III Type 4X Temp Code T*				
E FM ES APPROVED	Class I, Div. 2 (Zone 2 <sup>(5)</sup> ), Groups A, B, C, D Class I Zone 2 GROUP IIC Zone 2 (HTV heating cable only)				
			<b>((()</b>	Non lighte Ex e IIC Gb Ex tD A21 I Lighted ve Ex e mb IIC Ex tD mbD	P66 Prsions: CGb

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<sup>\*</sup>For system T-rating, see heating cable or design documentation.

(1) Except VPL.

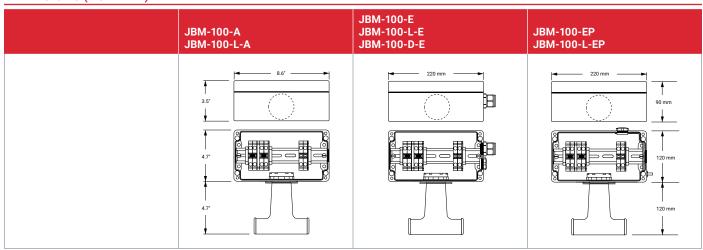
(2) Excluding HTV heating cable.

(3) Approval pending for HTV heating cable.

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

(5) Per C22.1 Table 18

# **DIMENSIONS (NOMINAL)**



# **PRODUCT SPECIFICATIONS**

	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		
Heating cable capability BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT, VPL-CT					
Ingress protection	IP66	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	-55°C to +56°C (JBM-100-A) -40°C to +40°C (JBM-100-L-A)	-55°C to +56°C* (JBM-100-E and JBM-100-D-E) -40°C to +40°C (JBM-100-L-E)	-55°C to +56°C* (JBM-100-EP) -40°C to +40°C (JBM-100-L-EP)		
	*Extra conditions for safe use apply at ambient temperatures >40°C. Temperature resistant power cable and metal glands must be used.				
Min. installation temperature	-55°C	-55°C	-55°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 mm² stranded, 10 mm² solid	10 mm² stranded, 10 mm² 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 certificate or installation instructions for full details.				
Max. continuous operating current (***)	53 A	53 A	53 A		

<sup>(\*\*\*)</sup> For pipe temperature > 150°C and <260°C and XTV, KTV or HTV heating cables, the maximum operating current shall be reduced to maximum 20 A.

# **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

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# **OPTIONAL LED INDICATOR LIGHT**

	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
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)	179935-000 (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)

Junction box stand off JBM-100 STANDOFF

P000003624

For insulation 120 ≥ 180 mm



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.

**North America** 

Tel +1.800.545.6258 Fax +1.800.527.5703 thermal.info@nVent.com **Europe, Middle East, Africa** 

Tel +32.16.213.502 Fax +32.16.213.604 thermal.info@nVent.com **Asia Pacific** 

Tel +86.21.2412.1688 Fax +86.21.5426.3167 cn.thermal.info@nVent.com **Latin America** 

Tel +1.713.868.4800 Fax +1.713.868.2333 thermal.info@nVent.com



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