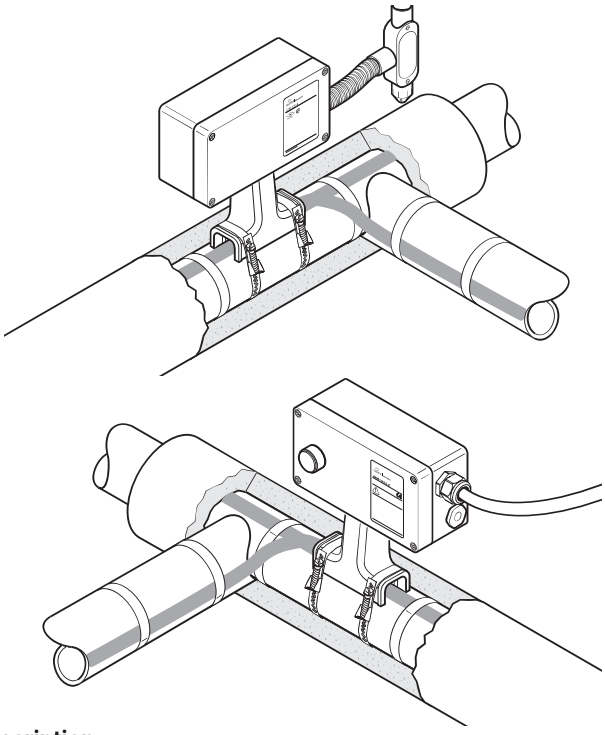
JBM-100

CONNECT AND PROTECT

Multiple-Entry Power/Tee Connection with Junction Box

PRODUCT OVERVIEW



The nVent RAYCHEM JBM-100 kit is designed to connect power to up to three nVent RAYCHEM BTV, QTVR, XTVR, HTV, or VPL industrial parallel heating cables.

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

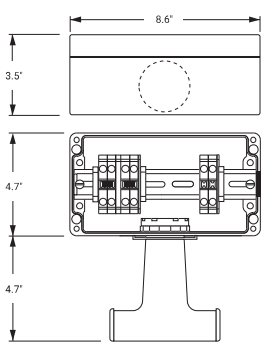
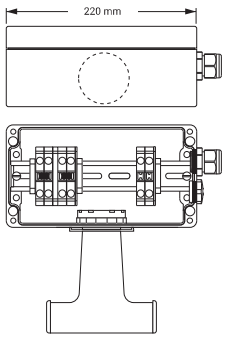
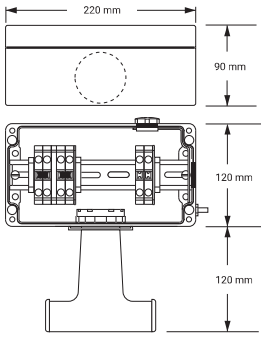
JBM-100-A JBM-100-L-A	JBM-100-E JBM-100-L-E JBM-100-D-E	JBM-100-EP JBM-100-L-EP
This connection system is certified for use in North America and has one ¾" through holes for use with ¾" conduit. One stopping plug is supplied in the kit.	This connection system is certified for use in IEC regions and provides two M25 threaded entries, one stopping plug, and one plastic power cable gland.	This connection system is certified for use in IEC regions 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 ¾" 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 to +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

PRODUCT SPECIFICATIONS

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
			

Technical details

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTVR-CT, HTV-CT, VPL-CT		
Ingress protection	IP66	IP66	IP66
Entries	1 x ¾"	2 x M25	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. Please refer to the certificate or installation instructions for full details.		
Max. pipe temperature	Refer to heating cable specification		
Terminals	Spring-type terminals 4 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	480 Vac*	480 Vac*	480 Vac*
	*JBM-100-L-E, JBM-100-L-EP and JBM-100-L-A are limited to 277 Vac. Extra conditions for safe use apply for voltages higher than 277 Vac. Please refer to the certificate or installation instructions for full details.		
Max. continuous operating current (***)	53 A	53 A	53 A

(***) For pipe temperature > 150°C and <260°C and XTVR 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

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	100-277 Vac	100-277 Vac
Power consumption	< 1 W	< 1 W	< 1 W

Ordering details (**)

APPROVALS (**)

For use in ordinary and hazardous area Zone 1 and Zone 2 (Gas), Zone 21 and Zone 22 (Dust) and Class I Div 1 & 2

Temperature classification

Temperature classification is defined by the complete system.

Product certification

For certifications in other regions (FM, CSA, IEx etc.), please refer to the installation manual. More details about product certification, approvals and conditions of safe use are available in the installation manual www.nVent.com/RAYCHEM.

ORDERING INFORMATION

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)

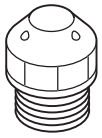
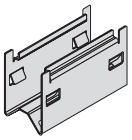
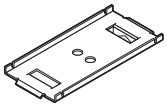
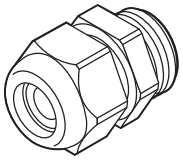
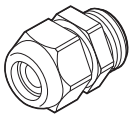
Power connection with light

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 ¾"	Prevents condensate from collecting in the box	
Catalog number	JB-DRAIN-PLUG-3/4IN	
Part Number	278621-000	
Weight	0.074 lb / 36 g	
Junction box standoff	For insulation thickness >120 mm & ≤180 mm *	
Catalog number	JBM-100-STANDOFF	
Part Number	P000003624	
Weight	0.599 lb / 272 g	
* Consider extra pipe strap length 6-9" (150-225 mm) for attachment		
Small pipe adapter	Required for stand on pipes ≤ 1"	
Catalog number	JBM-SPA	
Part Number	D55673-000	
Weight	0.930 lb / 422 g (Bag of 5 adaptors)	
Glands for power cables	Hazardous area approved gland for cables 8-15 mm (temperature range –55°C/70°C)	
Catalog number	GL-55-M25	
Part Number	1244-019083	
Weight	0.016 kg	
Glands for power cables	Hazardous area approved gland for cables 8-17.5 mm (temperature range –20°C/70°C)	
Catalog number	GL-36-M25	
Part Number	1244-019082	
Weight	0.016 kg	

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

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