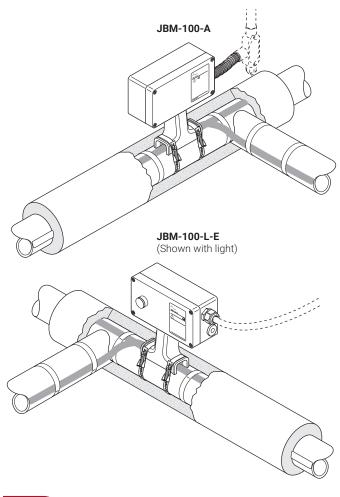
JBM-100



CONNECT AND PROTECT

Multiple-Entry Power/Splice/Tee Connection with Junction Box

PRODUCT OVERVIEW



The nVent RAYCHEM JBM-100 kit serves as a power connection, splice, or tee for up to three nVent RAYCHEM brand BTV, QTVR, XTV, KTV, HTV or VPL heating cables. It is approved by FM, CSA, PTB and IEx for use in hazardous locations.

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

The cold-applied core sealer does not require a heat gun or torch for installation, so no hot work permit is necessary. The silicone-free, noncuring sealant allows easy installation and re-entry for maintenance.

Innovative spring clamp terminals provide fast installation and safe, reliable, maintenance-free operation.

Compared with other systems, this connection kit significantly reduces installation time. The kit is offered in three versions, customized for local installation practices. All kits are also available with a plug-in LED light (-L) that indicates when power is supplied to the heating cable circuit.

The kit contains all the necessary materials for a complete installation except for the pipe straps, which must be ordered separately.



DESCRIPTION

| JBM-100-A, A6 | JBM-100-E | JBM-100-EP |
|---|----------------------------|--|
| JBM-100-L-A* | JBM-100-L-E* | JBM-100-L-EP* |
| *Not for use with 480 V VPL | *Not for use with 480V VPL | *Not for use with HTV, 480 V VPL |
| This connection system is certified 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 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

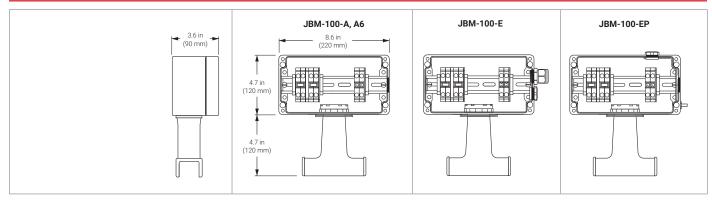
| 1 junction box with terminals | 1 junction box with terminals | 1 junction box with terminals, earth |
|---------------------------------|--|--------------------------------------|
| 1 stand assembly | 1 stand assembly | continuity plate, and stud |
| 3 core sealers | 3 core sealers | 1 stand assembly |
| 3 green/yellow tubes | 3 green/yellow tubes | 3 core sealers |
| 1 3/4 in stopping plug assembly | 1 M25 gland for power cable 8–17 mm in | 3 green/yellow tubes |
| 1 light module (for -L only) | diameter | 2 M25 stopping plugs |
| 2 grommet plugs | 2 M25 stopping plugs | 1 light module (for -L only) |
| | 1 light module (for -L only) | 2 grommet plugs |
| | 2 grommet plugs | |

Note: Order appropriate pipe straps separately (two straps per kit)

APPROVALS

Hazardous locations

| JBM-100-, JBM-100- | | ЈВМ-100-Е ЈВМ-100-L-Е | JBM-100-EP JBM-100-L-EP |
|-----------------------------------|---|--------------------------|---|
| APPROVED (1)(2) | Class I Zone 1, AEx e II T* Class I Zone 1, AEx em II T* (for -L only) | Ex Ex | PTB 20 ATEX 1008 U II 2 G Ex eb mb IIC Gb II 2 D Ex tb mb IIIC Db |
| (1)(2) APPINOVED (2) (2) | Class I, Div. 2, Groups A, B, C, D Class II, Div. 1 & 2, Groups E, F, G Class III Type 4X Temp Code T* | | IECEx PTB 20.0014U Ex eb mb IIC Gb Ex tb mb IIIC Db |
| (3) APPROVED | Class I, Div. 2 (Zone 2 ⁽⁴⁾), Groups A, B, C, D Class I Zone 2 GROUP IIC | | BR-EX e II BR-Ex em II |
| (2) (2) | 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) | (2) (2) | Ex eb IIC T* Gb Ex tb IIIC T*°C Db |
| | | | * For system T-rating, see heating cable or design documentation. ⁽¹⁾ Except VPL. ⁽²⁾ Excluding HTV heating cable. ⁽³⁾ For HTV heating cable only. ⁽⁴⁾ Per C22.1 Table 18 |



PRODUCT SPECIFICATIONS

| | JBM-100-A, A6 | JBM-100-E | JBM-100-EP |
|----------------------------------|-------------------------------|----------------------------|---------------|
| | JBM-100-L-A | JBM-100-L-E | JBM-100-L-EP |
| Heating cable capability | BTV-CR, BTV-CT, QTVR-CT, XT | V-CT, KTV-CT, HTV-CT and V | VPL-CT |
| Ingress protection | Type 4X | IP66 | IP66 |
| Entries | 1 x 0.75 in (1 x 1 in for A6) | 2 x M25 | 2 x M25 |
| Minimum installation temperature | -67°F(-55°C)* | -67°F(-55°C)* | -67°F(-55°C)* |
| Minimum ambient temperature | -67°F(-55°C)* | -67°F(-55°C)* | -67°F(-55°C)* |
| Maximum ambient temperature | 132°F (56°C)* | 132°F (56°C)* | 132°F (56°C)* |

* For -L lighted kits, the ambient temperature range is -40° F (-40° C) to 104° F (40° C). For non-lighted kits, use a power wire with continuous temperature rating of > 194°F (90° C). For -E and -EP kits use a metallic power cable gland.

| Maximum pipe temperature | 500°F (260°C) | 500°F (260°C) | 500°F (260°C) |
|---------------------------------|---------------------------------------|--|--|
| Terminals | Spring clamp Ex e 4 line, 2 ground | Spring clamp Ex e 2 phase, 2 neutral, 2 earth | Spring clamp Ex e 2 phase, 2 neutral, 2 earth |
| Maximum conductor size | 8 AWG (A6 to 6 AWG) | 10 mm ² | 10 mm ² |
| Maximum operating voltage | 480 Vac* | 480 Vac* | 480 Vac* |
| | *JBM-100-L-E and JBM-100-L-EP | are limited to 254 Vac. JBM- | 100-L-A limited to 277Vac. |
| Maximum circuit breaker rating* | 50 A | 40 A | 40 A |
| + F : 1 1 1 1 0 0 1 0 0 0 | | | |

* For pipe temperatures >150°C and <260°C with XTV, KTV, HTV heating cables, the maximum operating current shall be reduced to maximum 20 A.

MATERIALS

| Enclosure | 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 yellow-chromated |

OPTIONAL LED INDICATOR LIGHT

| Color | Red | Green | Green |
|-------------------|-------------|-------------|-------------|
| Voltage rating | 100–277 Vac | 100-254 Vac | 100-254 Vac |
| Power consumption | < 1 W | < 1 W | < 1 W |

ORDERING DETAILS

| Multiple-entry power/splice/tee connection | | | |
|---|-------------------------|-----------------|-----------------|
| Catalog number | JBM-100-A / JBM-100-A6 | JBM-100-E | JBM-100-EP |
| Part number | 179935-000 / P000001376 | 831519-000 | 986415-000 |
| Weight | 4.3 lb (1.95 kg) | 1.9 kg (4.2 lb) | 2.1 kg (4.6 lb) |
| Multiple-entry power/splice/tee connection with light | | | |
| Catalog number | JBM-100-L-A | JBM-100-L-E | JBM-100-L-EP |
| Part number | 656081-000 | 395855-000 | 300273-000 |
| Weight | 5.3 lb (2.4 kg) | 2.3 kg (5.1 lb) | 2.5 kg (5.5 lb) |

ACCESSORIES

| Conduit drain 3/4" | JB-DRAIN-PLUG-3/4IN (prevents condensate from collecting in the box) ONLY FOR JBM-100-L-A , JBM-100-A |
|------------------------|--|
| Small pipe adaptor | JBM-SPA, required for pipes \leq 1" (DN 25) D55673-000 (bag of 5 adaptors) |
| Junction box stand off | JBM-100 STANDOFF P000003624 For insulation > = 4.7 in (120 mm) |

North America

Tel +1.800.545.6258 Fax +1.800.527.5703 thermal.info@nVent.com

Europe, Middle East, Africa

Tel +32.16.213.511 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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