

## CONNECT AND PROTECT

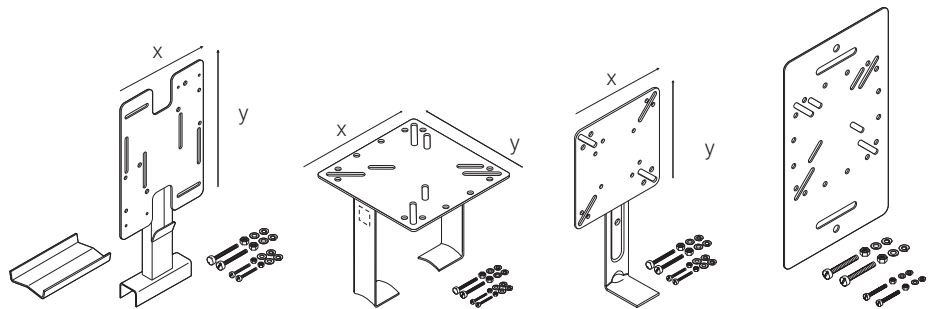
### Accessories

#### SUPPORTS

Support brackets are used to fix equipment such as thermostats or junction boxes on pipes or cable trays. Support brackets require additional pipe straps which have to be ordered separately.

They include a set of M6 and/or M4 fixing screws, nuts, washers and spring lock washers for the fixation of one junction box or thermostat. They are fabricated in stainless steel (SS304, and passivation)

The table below outlines the typical compatibility of each bracket with relevant equipment, for other equipment please contact nVent representative.

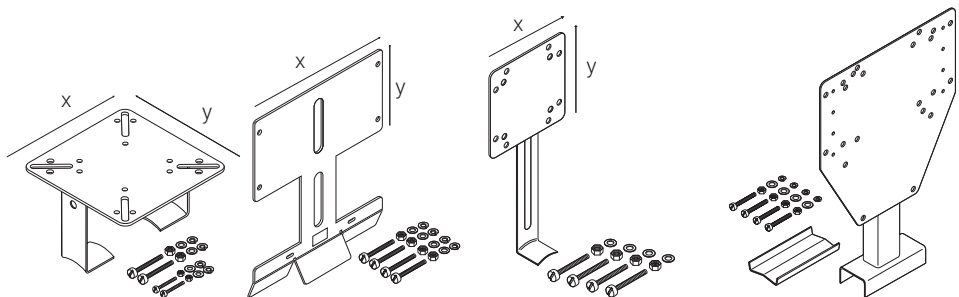


|                    | SB-100<br>192932-000 | SB-101<br>990944-000 | SB-110<br>707366-000 | SB-130**<br>1244-006602 |
|--------------------|----------------------|----------------------|----------------------|-------------------------|
| AT-TS-13           | X                    | X                    | X                    | X                       |
| AT-TS-14           | X                    | X                    | X                    | X                       |
| JB-82              | X                    | X                    | X                    | X                       |
| JB-EX-20(-EP)      | X                    | X                    | X                    | X                       |
| JB-EX-21           | X                    | X                    |                      | X                       |
| JB-EX-21/35MM2     |                      |                      |                      |                         |
| JB-EX-25/35MM2     |                      |                      |                      |                         |
| JB-EX-32/35MM2     |                      |                      |                      |                         |
| JBU-100(-L)-E(P)   | X                    | X                    |                      | X                       |
| MONI-PT100-EXE     |                      | X                    |                      | X                       |
| MONI-PT100-NH      |                      | X                    |                      | X                       |
| MONI-PT100-4/20mA  |                      | X                    |                      | X                       |
| RAYSTAT V5         | X                    | X                    |                      | X                       |
| RAYSTAT-EX-02      | X                    | X                    | X                    | X                       |
| ETS-05             | X                    | X                    | X                    | X                       |
| NGC-20-C(L)-E      |                      |                      |                      |                         |
| T-M-10-S/+x+y      | X                    | X                    |                      | X                       |
| T-M-20-S/+x+y/(EX) |                      |                      | X                    |                         |

\*\*Support bracket for fixation to cable trays

## TECHNICAL DATA

|                                | SB-100<br>192932-000 | SB-101<br>990944-000 | SB-110<br>707366-000 | SB-130**<br>1244-006602 |
|--------------------------------|----------------------|----------------------|----------------------|-------------------------|
| Plate size (mm) X x Y          | 160 x 230            | 160 x 160            | 130 x 130            | 180 x 315               |
| Distance pipe-plate (mm)       | 100                  | 160                  | 100                  | N.A.                    |
| Number of pipe straps required | 2                    | 2                    | 1                    | 2                       |
| Max. pipe temperature (°C)     | 230                  | 230                  | 230                  | N.A.                    |
| Weight (kg)                    | 0.7                  | 0.59                 | 0.4                  | 0.62                    |



|                    | SB-111<br>579796-000 | SB-120<br>165886-000 | JB-SB-26<br>338265-000 | SB-125<br>1244-00603 |
|--------------------|----------------------|----------------------|------------------------|----------------------|
| AT-TS-13           | x                    |                      |                        |                      |
| AT-TS-14           | x                    |                      |                        |                      |
| JB-82              | x                    |                      |                        | x                    |
| JB-EX-20(-EP)      | x                    |                      |                        |                      |
| JB-EX-21           |                      |                      |                        |                      |
| JB-EX-21/35MM2     | x*                   |                      |                        |                      |
| JB-EX-25/35MM2     | x*                   |                      |                        |                      |
| JB-EX-32/35MM2     | x*                   |                      |                        |                      |
| JBU-100(-L)-E(P)   |                      |                      |                        | x                    |
| MONI-PT100-EXE     | x                    |                      | x                      |                      |
| MONI-PT100-NH      | x                    |                      | x                      |                      |
| MONI-PT100-4/20mA  | x                    |                      | x                      |                      |
| RAYSTAT V5         |                      |                      |                        | x                    |
| RAYSTAT-EX-02      | x                    |                      |                        | x                    |
| ETS-05             | x                    |                      |                        |                      |
| NGC-20-C(L)-E      |                      | x                    |                        | x                    |
| T-M-10-S/+x+y      | x                    |                      |                        |                      |
| T-M-20-S/+x+y(/EX) |                      | x                    |                        | x                    |

\* Use 2 brackets per junction box

## TECHNICAL DATA

|                                |           |           |         |           |
|--------------------------------|-----------|-----------|---------|-----------|
| Plate size (mm) X x Y          | 130 x 130 | 220 x 120 | 80 x 80 | 220 x 232 |
| Distance pipe-plate (mm)       | 100       | 120       | 100     | 100       |
| Number of pipe straps required | 2         | 2         | 1       | 2         |
| Max. pipe temperature (°C)     | 230       | 230       | 230     | 230       |
| Weight (kg)                    | 0.48      | 0.66      | 0.2     | 0.9       |

## LABELS AND TAGS

Warning labels indicate the presence of electrical heat-tracing under the insulation of the pipe or other equipment. (min. of 1 label per 5 m of heat-tracing line). Also suitable for stainless steel pipes.



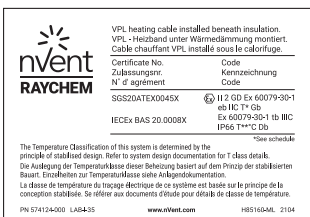
| Language                     | EHT label reference | Product number |
|------------------------------|---------------------|----------------|
| Arabian                      | LAB-ETL-AR          | 036236-000     |
| Bulgarian                    | LAB-ETL-BG          | 1244-002183    |
| Czech                        | LAB-ETL-CZ          | 731605-000     |
| Danish                       | LAB-ETL-DK          | C97690-000     |
| Dutch                        | LAB-ETL-NL          | 749153-000     |
| English                      | LAB-I-01            | 938947-000     |
| Estonian/English             | LAB-ETL-EN/EE       | 1244-001415    |
| Finnish/Swedisch             | LAB-ETL-SE/FI       | 756479-000     |
| French                       | LAB-I-05            | 883061-000     |
| German/French/Italian (230V) | LAB-ETL-DE/FR/IT    | 148648-000     |
| German                       | LAB-ETL-DE          | 597779-000     |
| Hungarian                    | LAB-ETL-HU          | 623725-000     |
| Italian                      | LAB-ETL-IT          | C97688-000     |
| Kazakh/Russian/English       | LAB-ETL-KZ/RU/EN    | 1244-017393    |
| Latvian                      | LAB-ETL-LV          | 841822-000     |
| Lithuanian                   | LAB-ETL-LT          | 105300-000     |
| Norwegian                    | LAB-ETL-NO          | C97689-000     |
| Norwegian/English            | LAB-ETL-EN/NO       | 165899-000     |
| Polish                       | LAB-ETL-PL          | 258203-000     |
| Portugese                    | LAB-ETL-PT          | 945960-000     |
| Romanian                     | LAB-ETL-RO          | 902104-000     |
| Russian                      | LAB-ETL-RU          | 574738-000     |
| Russian/English              | LAB-ETL-EN/RU       | 1244-001060    |
| Russian/English/Azeri        | LAB-ETL-AZ/RU/EN    | 1244-012283    |
| Russian/English/Uzbek        | LAB-ETL-UZ/RU/EN    | 1244-022143    |
| Spanish                      | LAB-ETL-ES          | C97686-000     |
| Swedish                      | LAB-ETL-SE          | 691703-000     |
| Turkish/English              | LAB-ETL-EN/TR       | 1244-014860    |



| Language        | Component label reference   | Product number            |
|-----------------|-----------------------------|---------------------------|
| English         | LAB-I-02                    | 774499-000                |
| Russian/English | LAB-I-02/E/R<br>LAB-ENDSEAL | 1244-001059<br>146909-000 |
| English         | ETL-END-SEAL<br>LAB-SPLICE  | 103405-000<br>007063-000  |

## STABILIZED DESIGN LABELS

If compliance to the T-class or A.I.T. cannot be achieved by the unconditional T-rating of the heating cable, the hazardous area regulations require that cable sheath temperature is determined by the rules of stabilized design as per EN 60079-30 and the heating circuit is marked accordingly. The following labels are available for this purpose (min.1 label per heating circuit)



### LAB-I-35

Stabilized design sticker. To be installed when power-limiting VPL heating cables are used in hazardous areas.

PN: 574124-000

Weight: 0,0015 kg

### LAB-EX-XTV-KTV

Aluminum tag plate for XTV and KTV self-regulating heating cables. To be installed if T-class compliance was proven by stabilized design and not by unconditional T-rating.

PN: 1244-011961 Weight: 0.04 kg

### LAB-EX-FxT

Aluminum tag plate. To be installed when parallel constant wattage FMT or FHT heating cables are used in hazardous areas.

PN: 1244-006953 Weight: 0.04 kg

### PI-LABEL-EX

Aluminum tag plate. To be installed when series polymer insulated XPI & XPI-S heating cables are used in hazardous areas.

PN: 1244-006940 Weight: 0.04 kg

### PI-LABEL-NH

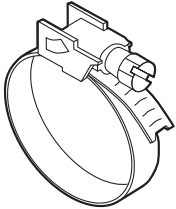
Aluminum tag plate. To be installed when series polymer insulated XPI & XPI-S heating cables are used non hazardous areas.

This label is not mandatory but highly recommended for future reference.

PN: 1244-006941 Weight: 0.04 kg

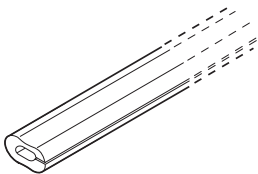
## PIPE STRAPS

Metal straps for pipe mounting of integrated power connections, above the insulation tees and end seals as well as support brackets and the tubular insulation entry. Banding: stainless steel



| Pipe outer diameter in mm | (inches)        | Pipe strap | PN (Weight)           |
|---------------------------|-----------------|------------|-----------------------|
| 20 - 47                   | (1/2" - 1 1/4") | PSE-047    | 700333-000 (0.017 kg) |
| 40 - 90                   | (1 1/4" - 3")   | PSE-090    | 976935-000 (0.024 kg) |
| 60 - 288                  | (2" - 10")      | PSE-280    | 664775-000 (0.052 kg) |
| 60 - 540                  | (2" - 20")      | PSE-540    | 364489-000 (0.052 kg) |

## PIPE STRAPS



### G-02

Silicone grommet that protects the heating cable at sharp edges such as endplates of insulation cladding, flanges etc. It can be cut-to-length and resists temperatures up to 215°C.

Sold in pieces of 1 m.

PN: 412549-000 Weight: 0.37 kg/m)

## FIXING MATERIALS

Self-adhesive tape for fixing the heating cables on pipes or other equipment.



### GT-66

Glass cloth tape for attaching heating cable to pipe.

Not for stainless steel pipes or for installation temperatures below 5°C.

20 m per roll, 12 mm width.

PN: C77220-000 Weight: 0.053 kg

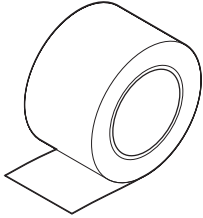
### GS-54

Glass cloth tape for attaching heating cable to pipe.

For stainless steel pipes or for any installation below 5°C.

16.5 m per roll, 12 mm width.

PN: C77221-000 Weight: 0.048 kg



#### **ATE-180**

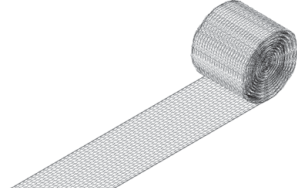
Aluminium tape\* for attaching heating cables and thermostat sensors to pipes and tanks. Minimum installation temperature: 0°C. Also suitable for stainless steel pipes.

55 m per roll, 63.5 mm width.

PN: 846243-000

Weight: 0.84 kg

\*Power output of selfregulating heating cables might increase when installed with aluminium tape or other heat transfer aids. Please use TraceCalc or contact nVent representative for further details.



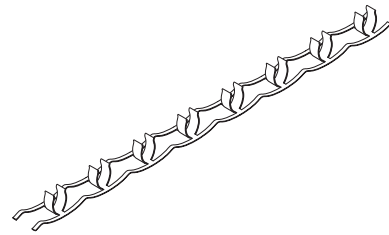
#### **HWA-METAL-MESH-SS-50MM-10M**

Stainless steel mesh for fixation of heating cables on valves, pumps or other odd-shaped surfaces. This mesh provides optimum contact and heat transfer between heating cables and heated equipment and can be used for exposure temperatures up to 400°C.

10 m per roll, 50 mm width.

PN: 1244-005772

Weight: 0.36 kg



#### **HWA-PI-FIX-SS-xMM-10M**

Stainless steel clip band to attach Polymer Insulated series heating cables to pipes. Clips at regular distances to allow for even heater spacing. Band available in two sizes for different diameter ranges.

10 m per roll.

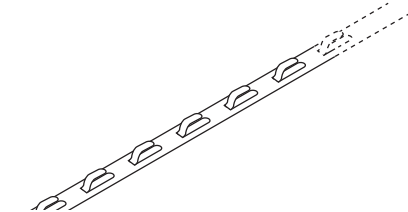
For diameters up to 5 mm, HWA-PI-FIX-SS-5MM-10M

PN: 1244-007768 Weight: 0.32 kg

For diameters up to 8 mm, HWA-PI-FIX-SS-8MM-10M

PN: 1244-007769

Weight: 0.52 kg



#### **HARD-SPACER-SS-25MM-25M**

Stainless steel spacer for fixing the heating cable on walls, tanks and vessels, etc.

Width spacer: 12.5 mm.

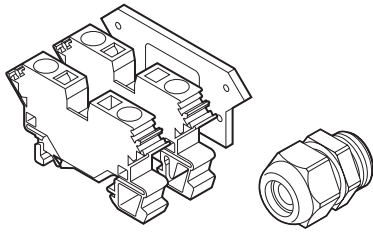
Fixing distance for cables: each 25 mm.

25 m per roll.

PN: 107826-000

Weight: 1.10 kg

## TERMINALS



### HWA-WAGO-TSTAT-KIT

Thermostat kit with supplementary terminals to connect thermostats of type RAYSTAT-EX-02 to the junction boxes JBS, JBM and JBU.

The kit includes 2 terminals Spring-type terminals (1 x L, 1 x PE), 1 power cable gland GL-36-M25, 1 end plate and 1 installation instruction.

PN: 966659-000 Weight: 0.073 kg

PTB 98 ATEX 3133 U (Terminal)

PTB 99 ATEX 3128 X (Gland)

### HWA-WAGO-PHASE

Phase/neutral terminal (Ex e), spare part for various junction boxes, max. 10 mm<sup>2</sup> solid/stranded.

PN: 633476-000 Weight: 0.019 kg

PTB 98 ATEX 3133 U

### HWA-WAGO-EARTH

Earth terminal (Ex e), spare part for various junction boxes, max. 10 mm<sup>2</sup> solid/stranded.

PN: 911505-000 Weight: 0.027 kg

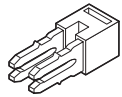
PTB 98 ATEX 3133 U

### HWA-WAGO-ENDPLATE

End plate for HWA-WAGO-..., 10 mm<sup>2</sup> terminals, spare part.

PN: 983674-000 Weight: 0.003 kg

PTB 98 ATEX 3133 U



### HWA-WAGO-JUMPER

Jumper to bridge HWA-WAGO-..., 10 mm<sup>2</sup> terminals, spare part.

PN: 550942-000 Weight: 0.0004 kg

PTB 98 ATEX 3133 U

### HWA-WDM-PHASE-35

Phase/neutral screw terminal (Ex e), spare part for JB-EX-xx/35MM2 junction boxes, max. 35 mm<sup>2</sup> solid/stranded.

PN: 1244-006990 Weight: 0.052 kg

KEMA 98 ATEX 1683 U

### HWA-WDM-EARTH-35

Earth screw terminal (Ex e), spare part for JB-EX-xx/35MM2 junction boxes, max. 35 mm<sup>2</sup> solid/stranded.

PN: 1244-006992 Weight: 0.077 kg

KEMA 98 ATEX 1683 U

**HWA-WDM-EARTH-10**

Earth screw terminal (Ex e), spare part for JB-EX-xx/35MM2 junction boxes, max. 10 mm<sup>2</sup> solid/stranded.

PN: 1244-006992      Weight: 0.030 kg

KEMA 98 ATEX 1683 U

**HWA-WDM-JUMPER-35-2**

Jumper to bridge two HWA-WDM-... 35 mm<sup>2</sup> terminals, spare part

PN: 1244-006995      Weight: 0.013 kg

KEMA 98 ATEX 1683 U

**HWA-WDM-JUMPER-35-3**

Jumper to bridge three HWA-WDM-... 35 mm<sup>2</sup> terminals, spare part

PN: 1244-006996      Weight: 0.020 kg

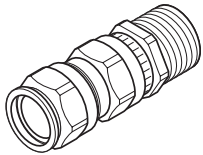
KEMA 98 ATEX 1683 U

**HWA-WDM-PLATE**

End plate for HWA-WDM-... 35 mm<sup>2</sup> terminals, spare part

PN: 1244-007004      Weight: 0.005 kg

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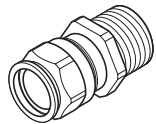
**GLANDS****GL-33**

3/4" NPT power cable gland for RAYSTAT-EX-02 (Ex d IIC)

Nickel plated brass, silicone grommet.

For use with armoured power cables with outer sheath diameter of 13.5 - 21 mm and inner sheath diameter of 10 - 15.5 mm.

PN: 1244-017517      Weight: 0.14 kg

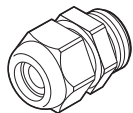
**GL-34**

3/4" NPT power cable gland for RAYSTAT-EX-02 (Ex d IIC)

Nickel plated brass, silicone grommet.

For use with non-armoured power cables with outer sheath diameter of 10 - 15.5 mm.

PN: 1244-017518      Weight: 0.08 kg

**GL-36-M25**

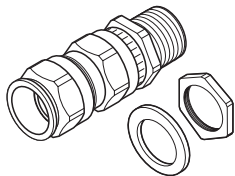
M25 power cable gland (Ex e) Polyamide.

For use with non-armoured power cables with outer diameter range 8-17,5 mm.

Temperature range: -20°C/+70°C.

Spare part for JBS-100, JBM-100 and JBU-100.

PN: 1244-019082      Weight: 0.016 kg

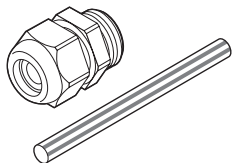
**GL-38-M25-METAL**

M25 power cable gland (Ex e II and Ex d IIC) for use with junction boxes with internal earth plate (-EP) or metal boxes.

Nickel plated brass, silicone grommet.

For use with armoured power cables with sheath diameter of 13.5 - 21 mm and inner sheath diameter 10 - 15.5 mm.

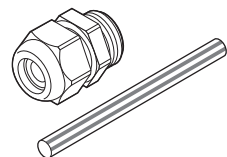
PN: 056622-000      Weight: 0.15 kg



#### **C20-PI-PA-KIT**

cable gland (Ex e), polyamide for use with PI cables with a diameter range of 4-13mm, up to -40°C. With green/yellow sleeve.

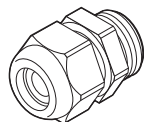
PN: 1244-019669 Weight: 0.02 kg



#### **C20-PI-M0-KIT**

cable gland (Ex e), Ni plated brass for use with PI cables with a diameter range of 5-14mm in conjunction with junction boxes with earth plate or with polymer junction boxes and an earth lug, up to -55°C. With green/yellow sleeve.

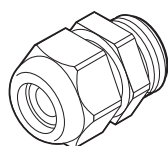
PN: 1244-019670 Weight: 0.71kg



#### **GL-45-M32**

M32 cable gland (Ex e), polyamide for use with power cables with a diameter range of 12 - 21 mm.

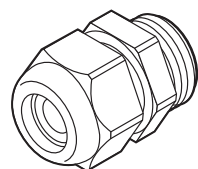
PN: 1244-000 847 Weight: 0.028 kg



#### **GL-51-M40**

M40 cable gland (Ex e), polyamide for use with power cables with a diameter range of 17 - 28 mm.

PN: 1244-007003 Weight: 0.045 kg



#### **GL-55-M25**

M25 power cable gland (Ex e) Polyamide.

For use with non-armoured power cables with outer diameter range 8 - 15 mm.

Temperature range: -55°C/+70°C

Spare part for JBS-100, JBM-100, JBU-100, JB-EX-20(-EP), JB-MB-25/16MM2 and JB-MB-26/16MM2

PN 1244-019083 Weight: 0.016 kg

## **PLUGS**



#### **HWA-PLUG-M20-EXE-PLASTIC**

M20 stopping plug Ex e, up to -55°C.

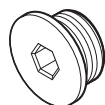
Polyamide.

Spare parts for various junction boxes.

PN: 1244-000 845 Weight: 0.003 kg

PTB 98 ATEX 3130

IECEX PTB 03.0000



#### **HWA-PLUG-M25-EXE-PLASTIC**

M25 stopping plug Ex e, up to -55°C.

Polyamide.

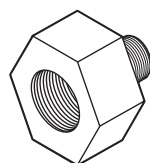
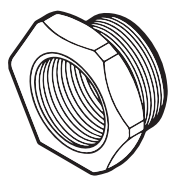
Spare parts for various junction boxes.

PN: 434994-000 Weight: 0.007 kg

PTB 98 ATEX 3130

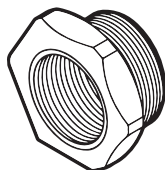
IECEX PTB 03.0000

## ADAPTORS/REDUCERS



| Prod Description        | Male   | Female | Hazardous area approved | Material        | Extra accessories             | Product Number (Weight) |
|-------------------------|--------|--------|-------------------------|-----------------|-------------------------------|-------------------------|
| REDUCER-M25/M20-EEXE    | M25    | M20    | Ex e                    | Polyamide       | None                          | 1244-002089 (0.021 kg)  |
| REDUCER-M32/M25-EEXE    | M32    | M25    | Ex e                    | Polyamide       | None                          | 1244-000859 (0.009 kg)  |
| REDUCER-M40/M32         | M40    | M32    | Ex e                    | Polyamide       | O-ring                        | 1244-007007 (0.016 kg)  |
| ADPT-PG16-M25-EEXE      | M25    | PG16   | Ex e                    | Polyamide       | O-ring                        | 541892-000 (0.020 kg)   |
| REDUCER-M25/20-EEXD     | M25    | M20    | Ex d                    | Brass           | O-ring                        | 404287-000 (0.07 kg)    |
| REDUCER-M25/20          | M25    | M20    | Ex d                    | Brass           | Locknut, Fibre washer, O-ring | 630617-000 (0.07 kg)    |
| REDUCER-M25/M20-EEXD-SS | M25    | M20    | Ex d                    | Stainless steel | O-ring                        | 1244-002090 (0.028 kg)  |
| REDUCER-1NPT/PG16-EEXD  | 1" NPT | PG16   | Ex d                    | Stainless steel | None                          | 414478-000 (0.10 kg)    |
| REDUCER-1NPT/M25        | 1" NPT | M25    | Ex d                    | Stainless steel | None                          | 1244-000953 (0.55 kg)   |
| REDUCER-M25/PG16-EEXE   | PG16   | M25    | Ex e                    | Polyamide       | O-ring                        | 953780-000 (0.03 kg)    |
| ADAPTOR-M20/25          | M20    | M25    | Ex d                    | Brass           | Locknut and O-ring            | 492799-000 (0.092 kg)   |
| ADPT-M20/25-EEXD        | M20    | M25    | Ex d                    | Brass           | O-ring                        | 684953-000 (0.09 kg)    |

## APPROVALS



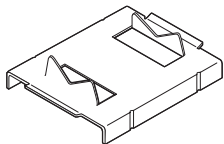
### REDUCER-M25/20-EEXD

SIRA 00ATEX1094   
IECEx SIR 05.0042U

### REDUCER-M25/PG16-EEXE

SIRA00ATEX3091  
IECEx SIR 05.0042U

## SMALL PIPE ADAPTORS



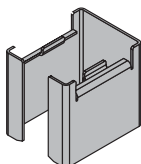
### JBS-SPA

Small pipe adaptor required for pipes  $\leq 1"$  (DN25), applicable for JBS-100, E-100, E-100-L E90515-000 (bag of 5 adaptors) Weight: 0.14 kg

### JBM-SPA

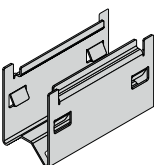
Small pipe adaptor required for pipes  $\leq 1"$  (DN25), applicable for JBM-100, T-100 D55673-000 (bag of 5 adaptors) Weight: 0.40 kg

## STANDOFFS



### JBS-100 STANDOFF

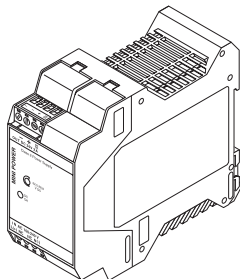
Junction box stand off  
P000003408  
For insulation  $120 \geq 180$  mm



### JBM-100 STANDOFF

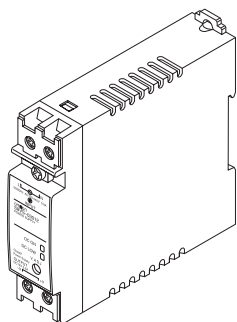
Junction box stand off  
P000003624  
For insulation  $120 \geq 180$  mm

## POWER SUPPLY



### MONI-RMC-PS24

24 Vdc stabilized power supply  
Wide range input (100 - 240 Vac) power supply to provide  
24 Vdc input for MONI- RMC-BASE.  
Surface or DIN 35 rail mounted.  
PN: 972049-000 Weight: 0.28 kg



### MONI-PS12

12 Vdc stabilized power supply  
Wide range input (100 - 240 Vac) power supply to provide 12 Vdc input for the  
nVent RAYCHEM NGC-30-CRM-E and nVent RAYCHEM NGC-30-CRMS-E cards.  
DIN 35 rail mountable.  
PN: 1244-001505 Weight: 0.18 kg

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