

# Rittal – The System.

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# Rittal – The System.

Faster – better – everywhere.



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# Cable routing

## Cable gland

### HD cable gland

#### Applications:

- Production and packaging of food and beverages
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

#### Benefits:

- Smooth, solid exterior surfaces effectively prevent the accumulation of harmful micro-organisms
- Much easier, and therefore cheaper to clean compared with conventional cable glands

#### Material:

- Cap nut: Stainless steel 1.4305 (AISI 303)
- Seal: Conforms to FDA 21 CFR 177.2600

#### Protection category IP to IEC 60 529:

- IP 68 (5 bar, 30 min.)

#### Protection category IP to DIN 40 050-9:

- IP 69K

#### Standard version

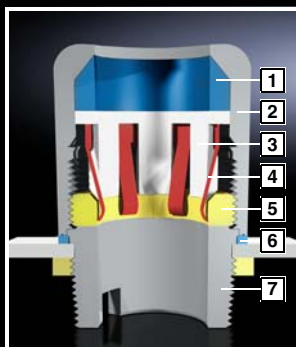
| Size      | Cable diameter mm | Packs of | Model No.       |
|-----------|-------------------|----------|-----------------|
| M12 x 1.5 | 3 – 6.5           | 5 pc(s). | <b>2410.000</b> |
| M16 x 1.5 | 5 – 10            | 5 pc(s). | <b>2410.010</b> |
| M20 x 1.5 | 6 – 12            | 5 pc(s). | <b>2410.020</b> |
| M25 x 1.5 | 12 – 17           | 5 pc(s). | <b>2410.030</b> |

#### EMC version

| Size      | Cable diameter mm | Packs of | Model No.       |
|-----------|-------------------|----------|-----------------|
| M16 x 1.5 | 5 – 10            | 5 pc(s). | <b>2410.110</b> |
| M20 x 1.5 | 6 – 12            | 5 pc(s). | <b>2410.120</b> |
| M25 x 1.5 | 12 – 17           | 5 pc(s). | <b>2410.130</b> |

#### Note:

- Stainless steel lock nut is not included. Order separately based on size page 568

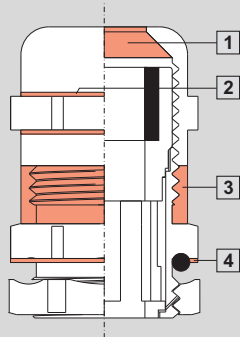


- 1 Seal
- 2 Cap nut
- 3 Clamping jaws
- 4 Shielding clip (EMC version only)
- 5 Clamping ring
- 6 Housing seal
- 7 Pedestal with fixture for mounting tool

### Why choose hygiene-compliant cable glands?

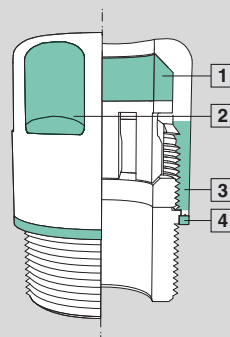
#### Critical locations with conventional solutions

- 1 Cable entry in front of the seal
- 2 No minimum radii on the hexagon
- 3 External thread
- 4 Split by O-ring on the housing support



#### Hygiene-compliant design characteristics

- 1 Seal direct at the cable entry
- 2 Compliance with minimum radii on the hexagon
- 3 No external thread
- 4 Flush connection between cap nut and housing



### Stainless steel lock nut

To match HD cable glands.

#### Material:

- Stainless steel 1.4305 (AISI 303)

| Size      | Packs of  | Model No.       |
|-----------|-----------|-----------------|
| M12 x 1.5 | 10 pc(s). | <b>2410.200</b> |
| M16 x 1.5 | 10 pc(s). | <b>2410.210</b> |
| M20 x 1.5 | 10 pc(s). | <b>2410.220</b> |
| M25 x 1.5 | 10 pc(s). | <b>2410.230</b> |

### Assembly tool

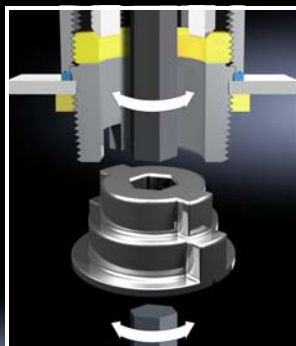
#### for HD cable glands

To secure HD cable glands in an internal thread or using lock nuts, either from the inside or from the outside using an Allen key.

#### Supply includes:

- 1 set = Adapter for sizes from M12 – M25

| Packs of | Model No.       |
|----------|-----------------|
| 1 set(s) | <b>2410.290</b> |



## Cable gland

### Connector gland

#### for connector cut-outs (24-pole)

To route 2 pre-assembled cables through the connector cut-out without disassembling the connector.

Cable diameter: 8 – 36 mm

#### Material:

- Housing: Plastic
- Clamps: Carbon steel

#### Surface finish:

- Clamps: Zinc-plated

#### Supply includes:

- 1 set =  
2 half-shells, including seals, with fastening clamp

| Packs of | Model No. |
|----------|-----------|
| 1 set(s) | 2400.000  |



### Edge protection

To cover the sharp edges of cut-outs. Provides protection from injury and prevents damage to inserted cables. Suitable for material thicknesses of approx. 1.0 – 2.0 mm, and may be cut to length as required.

#### Material:

- Plastic PVC

#### Color:

- Black

| Packs of    | Model No. |
|-------------|-----------|
| 394" (10 m) | 7072.100  |



# Cable routing

## Cable gland



With the “less is more effect”, the connector gland offers significantly less assembly work, a flexible sealing system for various cable diameters and simple routing of pre-assembled lines. Low installation costs, high protection category, flexible cable management – choose the added value offered by the latest generation of Rittal cable entry systems.

### Advantages:

- Cable diameter 4 – 16 mm
- Simple routing of pre-assembled lines
- Individual cables can also be retrofitted and replaced without disassembling the sealing frame
- Sealing modules hold to the cable and are secure against loss



## Sealing frame

For pre-assembled cables and lines with connectors.

Mounted on 24-pole or 16-pole connector cut-outs in

- Module plates for TS divider panel
- Metal flange plates

### Material:

- Frame: Polyamide
- Flat seal: CR

### Protection category IP to IEC 60 529:

- IP 64

### Protection category NEMA

- NEMA 12

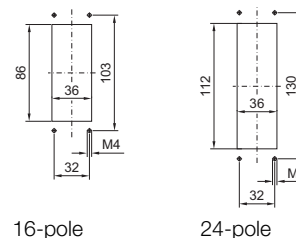
### Supply includes:

- Assembly components

| For modules 0.8 x 0.8 inches (20 x 20 mm) | For cut-out | Packs of | Model No.       |
|---|-------------|----------|-----------------|
| 10 pc(s).                                 | 24-pole     | 1 pc(s). | <b>2400.900</b> |
| 8 pc(s).                                  | 16-pole     | 1 pc(s). | <b>2400.910</b> |

### + Accessories:

- Module plates for TS divider panel, see from page 455



16-pole

24-pole



## Sealing modules

To seal cables and lines in conjunction with a sealing frame. 20 x 20 mm and 40 x 40 mm sealing modules can be combined.

### Material:

- Hard shell: Polyamide
- Seal: TPE 2

### Protection category IP to IEC 60 529:

- IP 64

### Protection category NEMA:

- NEMA 12

### Sealing modules 0.8 x 0.8" (20 x 20 mm)

| Sealing area            | Packs of  | Model No.       |
|-------------------------|-----------|-----------------|
| 0.16 – 0.24" (4 – 6 mm) | 10 pc(s). | <b>2400.920</b> |
| 0.24 – 0.35" (6 – 9 mm) | 10 pc(s). | <b>2400.930</b> |
| Solid                   | 10 pc(s). | <b>2400.970</b> |

### Sealing modules 1.6 x 1.6" (40 x 40 mm)

| Sealing area              | Packs of  | Model No.       |
|---------------------------|-----------|-----------------|
| 0.35 – 0.47" (9 – 12 mm)  | 10 pc(s). | <b>2400.940</b> |
| 0.47 – 0.63" (12 – 16 mm) | 10 pc(s). | <b>2400.950</b> |
| Solid                     | 10 pc(s). | <b>2400.960</b> |

## Cable gland

### Connector gland, small

For pre-assembled cables with connectors.

- For use with material thickness of up to 4 mm.
- Cable ties provide strain relief of the pre-assembled cables

**Material:**

– Plastic

**Color:**

– RAL 9005

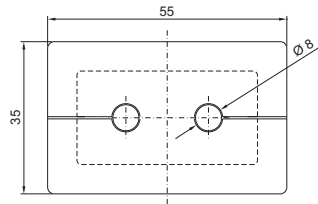
**Protection category IP to IEC 60 529:**

– IP 65 when installed per instructions

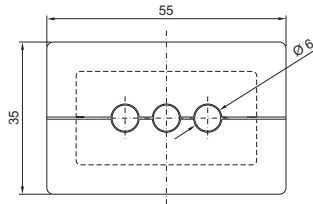
**Supply includes:**

– Assembly components

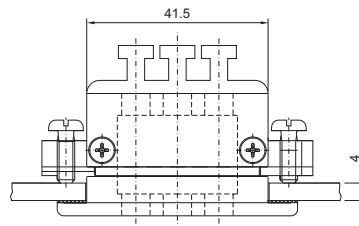
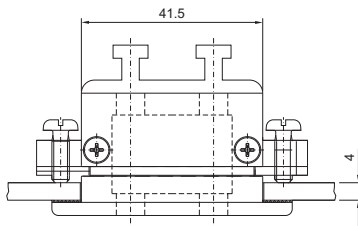
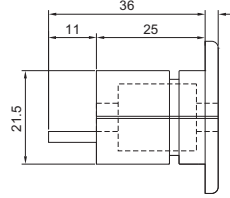
| Suitable for           | Packs of | Model No.       |
|------------------------|----------|-----------------|
| 2 cables<br>Ø 6 – 8 mm | 1 pc(s). | <b>2400.300</b> |
| 3 cables<br>Ø 4 – 6 mm | 5 pc(s). | <b>2400.500</b> |



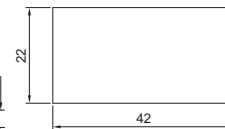
2400.300



2400.500



**Mounting cut-out**



### Cable gland module

for support arm connection Ø 130 mm

Use of the mounting cut-out for the Ø 130 mm support arm connection, round, with housings mounted on the wall, for sealed cable entry. May also be mounted at a later date with the cables already inserted.

Equipped with T-heads for cable clamping. Particularly well-suited to cables with identical cross-sections.

**Material:**

– Carbon steel

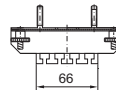
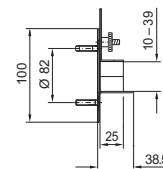
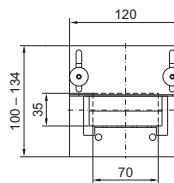
**Surface finish:**

– Zinc-plated

**Supply includes:**

– Assembly components

| Packs of | Model No.       |
|----------|-----------------|
| 1 pc(s). | <b>6052.500</b> |



### Stepped collar

for wall thicknesses from 1.5 to 4.5 mm

To insert cable, simply cut off at the required level to match the cable diameter.

**Material:**

– Plastic to UL 94-HB

**Protection category IP to IEC 60 529:**

– IP 54 with installation per instructions

| For hole | Sealing area inches (mm) | Packs of   | Model No.       |
|----------|--------------------------|------------|-----------------|
| M20      | 0.2 – 0.6<br>(5 – 16)    | 100 pc(s). | <b>2899.200</b> |
| M25      | 0.2 – 0.8<br>(5 – 21)    | 50 pc(s).  | <b>2899.250</b> |
| M32      | 0.5 – 1<br>(13 – 26.5)   | 25 pc(s).  | <b>2899.320</b> |
| M40      | 0.5 – 1.3<br>(13 – 34)   | 20 pc(s).  | <b>2899.400</b> |

