

# Metallic dome head (Exd/Exe) stopping plugs – PD-U Series

## Technical specification

Redapt PD-U series of stopping plugs provide a method of blanking off unused entries in hazardous area approved equipment whilst ensuring the integrity and Ex approval of the installation is maintained.

Manufactured to facilitate easy installation, they are also supplied complete with a captive O-ring seal. The O-ring is located within a recess on the face of the product, helping to protect the O-ring from the environmental damage and ensuring it is not displaced during installation.



Type PD-U

## Certifications and compliances



### Code of protection categories

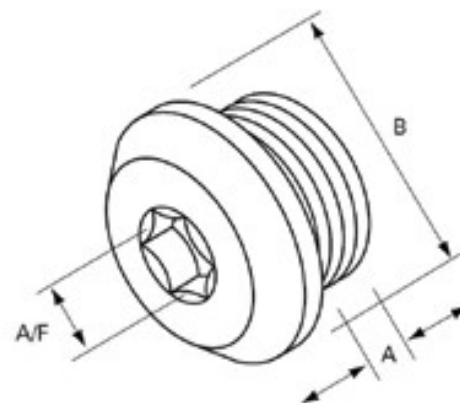
|               |  |
|---------------|--|
| <b>ATEX:</b>  | I M2, II 2 GD  |
| <b>IECEX:</b> | Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/Gb, Ex tb I/IIC Db (Aluminium not mining)  |
| <b>CSA:</b>   | Ex db / Ex eb IIC Gb IP66/67/68<br>CI I Zn 1 AEx eb / AEx db IIC Gb<br>CI I Div1 Gr ABCD CI II Gr EFG CI III; Type 4X/6P |

### Compliance standards

|                    |   |
|--------------------|---|
| <b>ATEX/IECEX:</b> | IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-31                                 |
| <b>CSA:</b>        | CAN/CSA C22.2 No. 60079-0, No. 60079-1, No. 60079-7, ANSI/UL 60079-0, 60079-1, 60079-7, UL 1203 |

### Certificate details

|                 |                       |
|-----------------|-----------------------|
| <b>ATEX:</b>    | ITS16ATEX101335X      |
| <b>IECEX:</b>   | IECEX ITS 16.0012X    |
| <b>CSA:</b>     | CSA01CA1248014X       |
| <b>EAC:</b>     | RU C-GB.M1062.B.06226 |
| <b>CCoE:</b>    | P362565/1             |
| <b>INMETRO:</b> | NCC 18.0133 X         |



### Ingress protection (IP):

IP66, IP68, CSA Enclosure Type (NEMA) 4X, 6P

### Plating options

Electroless nickel  
Zinc  
Chromated  
Others on application

### Threadforms

Metric  
NPT  
NPSM  
Pg  
ISO pipe (BSP)  
ET

### Temperature

Temperature will depend on the type of O-ring used

None: -60°C to +200°C  
Nitrile: -30°C to +80°C (supplied as standard)  
EPDM: -50°C to +100°C  
Neoprene: -40°C to +80°C  
Viton: -20°C to +180°C  
Silicone: -60°C to +180°C  
Fluorosilicone: -60°C to +130°C

*The maximum temperature is limited to +150°C for Group I applications*

### Dimensions

| Size | Thread length (A) | Hex (Allen) key A/F | Diameter (B) |
|------|-------------------|---------------------|--------------|
| M16  | 15.00             | 10.00               | 22.00        |
| M20  | 15.00             | 10.00               | 27.00        |
| M25  | 15.00             | 10.00               | 31.75        |
| M32  | 15.00             | 10.00               | 40.00        |
| M40  | 15.00             | 10.00               | 47.63        |
| M50  | 15.00             | 10.00               | 57.15        |
| M63  | 15.00             | 14.00               | 69.85        |
| M75  | 15.00             | 14.00               | 82.55        |

# Metallic dome head (Exd/Exe) stopping plugs – Product coding

| Product        | DIGITS 1 & 2 |
|----------------|--------------|
| Dome head PLUG | PD           |

| Certification | DIGIT 3                       |
|---------------|-------------------------------|
| U             | Exd I and IIC & Exe I and IIC |

| Material | DIGIT 4         |
|----------|-----------------|
| 1        | Brass           |
| 2        | Mild steel      |
| 3        | Stainless steel |
| 5        | Aluminium       |

| Plating | DIGIT 5            |
|---------|--------------------|
| 0       | Unplated           |
| 1       | Electroless nickel |
| 2       | Zinc               |
| 6       | Chromated          |

Notes: threadform codes below to be used for both male and female threads.  
For use in NPT Exd applications, choose PAU or PBU products.

| DIGITS 6 & 7 Male thread ; DIGITS 8 & 9 Female thread |                     |               |                |                          |                       |    |            |
|---|---------------------|---------------|----------------|--------------------------|-----------------------|----|------------|
| Metric  | ET imperial conduit | NPT           | NPSM           | ISO pipe parallel (BSPP) | ISO pipe taper (BSPT) | PG |            |
| 02 M12  |                     |               |                |                          |                       |    |            |
| 03 M16  | 17 5/8" ET          | 29 1/2" NPT   | 42 1/2" NPSM   | 55 1/2" BSPP             | 68 1/2" BSPT          | 79 | PG 7       |
| 04 M20  | 18 3/4" ET          | 30 3/4" NPT   | 43 3/4" NPSM   | 56 3/4" BSPP             | 69 3/4" BSPT          | 80 | PG 9       |
| 05 M25  | 19 1" ET            | 31 1" NPT     | 44 1" NPSM     | 57 1" BSPP               | 70 1" BSPT            | 81 | PG 11      |
| 06 M32  | 20 1 1/4" ET        | 32 1 1/4" NPT | 45 1 1/4" NPSM | 58 1 1/4" BSPP           | 71 1 1/4" BSPT        | 82 | PG 13.5    |
| 07 M40  | 21 1 1/2" ET        | 33 1 1/2" NPT | 46 1 1/2" NPSM | 59 1 1/2" BSPP           | 72 1 1/2" BSPT        | 83 | PG 16      |
| 08 M50  | 22 2" ET            | 34 2" NPT     | 47 2" NPSM     | 60 2" BSPP               | 73 2" BSPT            | 84 | PG 21      |
| 09 M63  | 23 2 1/2" ET        | 35 2 1/2" NPT | 48 2 1/2" NPSM | 61 2 1/2" BSPP           | 74 2 1/2" BSPT        | 85 | PG 29      |
| 10 M75  | 24 3" ET            | 36 3" NPT     | 49 3" NPSM     | 62 3" BSPP               | 75 3" BSPT            | 86 | PG 36      |
| 11 M80 x 2.0  | ET Special          | 37 3 1/2" NPT | 50 3 1/2" NPSM | 63 3 1/2" BSPP           | 76 3 1/2" BSPT        | 87 | PG 42      |
| 12 M85 x 2.0  |                     | 38 4" NPT     | 51 4" NPSM     | 64 4" BSPP               | 77 4" BSPT            | 88 | PG 48      |
| 13 M90 x 2.0  |                     | NT Special    | NS Special     | BP Special               | BT Special            |    | PG Special |
| 14 M100 x 2.0   |                     |               |                |                          |                       |    |            |
| 15 M110 x 2.0   |                     |               |                |                          |                       |    |            |
| BZ M120 x 2.0   |                     |               |                |                          |                       |    |            |

## Example

| Digits 1&2 | Digit 3         | Digit 4 | Digit 5       | Digits 6 & 7    | Digits 8 & 9 |
|------------|-----------------|---------|---------------|-----------------|--------------|
| PD         | - U             | - 1     | - 1           | - 29            | - 04         |
| Plug       | Exd/e certified | Brass   | Nickel-plated | 1/2" NPT (male) | M20 (female) |

Always quote male thread first.

# Thread dimension chart

## ISO metric

BS 3643 1.5mm pitch

| Size        | Major dia. | TPI   |
|-------------|------------|-------|
| M12         | 11.97      | 16.93 |
| M16         | 15.97      | 16.93 |
| M20         | 19.97      | 16.93 |
| M25         | 24.97      | 16.93 |
| M32         | 31.97      | 16.93 |
| M40         | 39.97      | 16.93 |
| M50         | 49.97      | 16.93 |
| M63         | 62.97      | 16.93 |
| M75         | 74.97      | 16.93 |
| 2.0mm pitch |            |       |
| M80         | 79.97      | 12.70 |
| M85         | 84.97      | 12.70 |
| M90         | 89.97      | 12.70 |
| M100        | 99.97      | 12.70 |
| M110        | 109.97     | 12.70 |
| M120        | 119.97     | 12.70 |

## Alternate ISO pipe thread designations

|        |  |
|--------|--|
| UK     | <b>BSP</b> Parallel or Taper<br>BS2279 (BS21)                                  |
| Europe | <b>G</b> (Parallel) <b>GK</b> (Taper)<br><b>R</b> (Parallel) <b>RK</b> (Taper) |
| Japan  | <b>PF</b> (Parallel) JISB 303  |
| CIS    | <b>K mpy</b> (Taper)   |

## NPT

ANSI ASME B1.20.1

| Size | Pipe dia. | TPI   |
|------|-----------|-------|
| ½"   | 21.34     | 14.00 |
| ¾"   | 26.67     | 14.00 |
| 1"   | 33.40     | 11.50 |
| 1¼"  | 42.16     | 11.50 |
| 1½"  | 48.26     | 11.50 |
| 2"   | 60.33     | 11.50 |
| 2½"  | 73.03     | 8.00  |
| 3"   | 88.90     | 8.00  |
| 3½"  | 101.60    | 8.00  |
| 4"   | 114.30    | 8.00  |

## PG

DIN 40430

| Size   | Major dia. | TPI   |
|--------|------------|-------|
| PG7    | 12.50      | 20.00 |
| PG9    | 15.20      | 18.00 |
| PG11   | 18.60      | 18.00 |
| PG13.5 | 20.40      | 18.00 |
| PG16   | 22.50      | 18.00 |
| PG21   | 28.30      | 16.00 |
| PG29   | 37.00      | 16.00 |
| PG36   | 47.00      | 16.00 |
| PG42   | 54.00      | 16.00 |
| PG48   | 59.30      | 16.00 |

## BSP ISO pipe thread

ISO R/7; UNI 6125

| Size | Pipe Dia. | TPI   |
|------|-----------|-------|
| ⅝"   | 16.66     | 19.00 |
| ½"   | 20.96     | 14.00 |
| ¾"   | 26.44     | 14.00 |
| 1"   | 33.25     | 11.00 |
| 1¼"  | 41.91     | 11.00 |
| 1½"  | 47.80     | 11.00 |
| 2"   | 59.61     | 11.00 |
| 2½"  | 75.18     | 11.00 |
| 3"   | 87.88     | 11.00 |

## ET imperial conduit

BS31

| Size | Major dia. | TPI   |
|------|------------|-------|
| ⅝"   | 15.88      | 18.00 |
| ¾"   | 19.05      | 16.00 |
| 1"   | 25.40      | 16.00 |
| 1¼"  | 31.75      | 16.00 |
| 1½"  | 38.10      | 14.00 |
| 2"   | 50.80      | 14.00 |
| 2½"  | 63.50      | 14.00 |
| 3"   | 76.20      | 14.00 |

## Thread dimension substitution chart

| Metric     | NPT (or NPS) | PG       | BSP ISO Pipe | ET  |
|------------|--------------|----------|--------------|-----|
| M16        | –            | 7, 9     | –            | ⅝"  |
| M20        | ½"           | 11, 13.5 | ½"           | ¾"  |
| M25        | ¾"           | 16       | ¾"           | 1"  |
| M32        | 1"           | 21       | 1"           | 1¼" |
| M40        | 1¼"          | 29       | 1¼"          | 1½" |
| M50        | 1½"          | 36       | 1½"          | 2"  |
| M63        | 2"           | 42, 48   | 2"           | 2½" |
| M75        | 2½"          | –        | 2½"          | 3"  |
| M90 x 2.0  | 3"           | –        | 3"           | –   |
| M100 x 2.0 | 3½"          | –        | –            | –   |
| M110 x 2.0 | –            | –        | –            | –   |
| M120 x 2.0 | –            | –        | –            | –   |



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