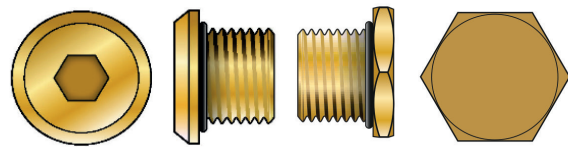




# PRODUCT TYPE SPMH & SPHH

## Metallic Dome Head & Hex Head Stopping Plugs

Ex d : Ex e : Ex nR : Ex tb : IP66 : IP68 : Class I Div 1 : AEx e : AEx ta



SPMH

SPHH

REFERENCE NUMBER: 7.2.0

EXAMPLE PART NUMBERING: SPMH1BF/NP/M20

|     |  |
|-----|--|
| SP  | Stopping (Blanking) Plug                             |
| MH  | Dome (Mushroom) Head (MH) / Hex Head (HH)            |
| 1   | No IP O-ring(0) - Nitrile (1) - Silicone (3)         |
| B   | Brass (B) - Stainless Steel (S) - Aluminium (A)      |
| F   | Ex d & Ex e certification including Marine Approvals |
| NP  | Nickel Plated  |
| M20 | Male Thread  |

OPTIONAL ACCESSORIES:

|   |
|---|
| IP Washers - (N) Nylon (ACNSW) / (V) Fibre (ACFSW) / (H) PTFE (ACPSW) |
| (T) Earth Tag - Brass (ACBET) / St-Steel (ACSET) / Aluminium (ACAET)  |
| (L) Locknut - Brass (ACBLN) / St-Steel (ACSLN) / Aluminium (ACALN)    |
| (S) Serrated Washer - Stainless Steel (ACSSW)                         |

|                        |   |
|------------------------|---|
| IP RATING:             | IP66 & IP68 (100 metres for 7 days) & NEMA 4X   |
| OPERATING TEMPERATURE: | O-ring - None -100°C to +400°C<br>O-ring - Nitrile -30°C to +100°C<br>O-ring - Silicone -60°C to +200°C |
| MATERIALS:             | Brass, Stainless Steel or Aluminium   |
| PLATING:               | Electroless Nickel  |

### Male threads are manufactured in accordance with:-

- ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423
- NPT and NPS threads are in accordance to ANSI B1.20.1
- PG threads to DIN40430
- ET threads to Imperial Conduit BS31
- ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6)
- ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

### SPHH & SPMH DIMENSIONAL DATA

SPHH INFORMATION TABLE

| ISO Metric Thread | A/F   | Overall Length | Weight | NPT Thread | A/F   | Overall Length | Weight |
|-------------------|-------|----------------|--------|------------|-------|----------------|--------|
| M12               | 19.0  | 20.5           | 0.024  | 1/4"       | 20.0  | 19.1           | 0.029  |
| M16               | 23.4  | 20.5           | 0.032  | 3/8"       | 24.0  | 19.3           | 0.045  |
| M20               | 27.0  | 21.0           | 0.049  | 1/2"       | 27.9  | 24.4           | 0.076  |
| M25               | 31.8  | 21.0           | 0.078  | 3/4"       | 33.0  | 24.7           | 0.118  |
| M32               | 37.6  | 21.0           | 0.134  | 1"         | 41.3  | 30.0           | 0.225  |
| M40               | 47.2  | 21.5           | 0.218  | 1-1/4"     | 50.0  | 31.1           | 0.379  |
| M50               | 57.2  | 21.5           | 0.333  | 1-1/2"     | 57.2  | 31.5           | 0.499  |
| M63               | 69.9  | 22.0           | 0.544  | 2"         | 70.0  | 32.9           | 0.814  |
| M75               | 90.0  | 22.0           | 0.777  | 2-1/2"     | 80.0  | 46.4           | 1.671  |
| M80               | 90.0  | 28.0           | 1.050  | 3"         | 106.4 | 49.5           | 2.652  |
| M85               | 106.4 | 28.0           | 1.225  | 3-1/2"     | 114.3 | 50.8           | 3.566  |
| M90               | 106.4 | 28.0           | 1.326  | 4"         | 127.0 | 52.0           | 4.602  |
| M100              | 114.3 | 28.0           | 1.680  |            |       |                |        |

SPMH INFORMATION TABLE

| ISO Metric Thread | Hex Socket A/F | Overall Length | Weight | NPT Thread | Hex Socket A/F | Overall Length | Weight |
|-------------------|----------------|----------------|--------|------------|----------------|----------------|--------|
| M12               | 6.0            | 21.5           | 0.020  | 1/4"       | 6.0            | 20.6           | 0.027  |
| M16               | 8.0            | 21.5           | 0.032  | 3/8"       | 8.0            | 20.8           | 0.041  |
| M20               | 10.0           | 21.5           | 0.049  | 1/2"       | 10.0           | 25.4           | 0.062  |
| M25               | 12.0           | 21.5           | 0.078  | 3/4"       | 12.0           | 25.7           | 0.125  |
| M32               | 12.0           | 21.5           | 0.134  | 1"         | 12.0           | 30.5           | 0.202  |
| M40               | 14.0           | 21.5           | 0.218  | 1-1/4"     | 14.0           | 31.1           | 0.337  |
| M50               | 17.0           | 21.5           | 0.333  | 1-1/2"     | 17.0           | 31.5           | 0.451  |
| M63               | 17.0           | 21.5           | 0.544  | 2"         | 17.0           | 32.4           | 0.743  |
| M75               | 19.0           | 21.5           | 0.777  | 2-1/2"     | 19.0           | 45.4           | 1.499  |
| M80               | 22.0           | 25.5           | 1.050  | 3"         | 22.0           | 47.0           | 2.310  |
| M85               | 22.0           | 25.5           | 1.255  | 3-1/2"     | 22.0           | 48.3           | 3.133  |
| M90               | 22.0           | 25.5           | 1.326  | 4"         | 22.0           | 49.5           | 4.086  |
| M100              | 22.0           | 25.5           | 1.680  |            |                |                |        |

All dimensions in mm / weight in kgs  
Head Diameter = Minimum 5.5mm larger than the major thread diameter.

NOTES

- Assembly instructions must be read prior to installation and adhered to in full.
- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1.
- For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Where applicable, the standard O-ring material is nitrile. Other options are available upon request.
- Aluminium versions are not suitable for Group I Mining applications.

### PART NUMBERS:

|    |    |   |   |   |
|----|----|---|---|---|
| SP | MH | 0 | B | F |
|    | HH | 1 | S |   |
|    |    | 3 | A |   |



### PRODUCT DESCRIPTION

"SPMH & SPHH" Series Certified Metallic Stopping (Blanking) Plugs provide a method of sealing unused entries in Ex equipment. They maintain Ex d, Ex e, Ex tb and Ex nR methods of protection and IP66, IP68 for IEC type applications. They are Class I Division 1, Class II Division 1, Class II and Class 1 Zone 1 approved for for NEC and CEC type applications whilst also maintain Type 4X rating.

### COMPLIANCE STANDARDS:

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529  
C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

CERTIFICATION:

|                  |  |
|------------------|--|
| ATEX             | I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db<br>II 3G Ex nR IIC Gc  |
| IECEX            | Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc  |
| CEC - Canada     | Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC<br>Class I Division 1, Groups A, B, C & D<br>Class II Division 1, Groups E, F & G<br>Class III, Enclosure Type 4X             |
| NEC - USA        | Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db<br>Class I Division 1, Groups A, B, C & D<br>Class II Division 1, Groups E, F & G<br>Class III, Enclosure Type 4X |
| EAC              | Exd IU / Exd IICU / Exe IU / Exe IICU / ExnR IUU   |
| INMETRO - Brazil | Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc  |
| SAC - China      | Ex d IIC / Ex e IIC  |
| UKRAINE          | Exd IU / Exd IICU / Exe IU / Exe IICU  |
| CCoE - India     | Ex d IIC Gb / Ex e IIC Gc  |
| ABS              | Specified ABS Rules  |
| LLOYD'S          | Enclosure Systems (Part 1B)  |
| RMRS             | Part XI of Rules for sea-going ships (ed.2014)   |

CERTIFICATION No:

|                  |                                     |
|------------------|-------------------------------------|
| ATEX             | SIRA 09ATEX1320X & SIRA 09ATEX4323X |
| IECEX            | IECEX SIR 09.0131X                  |
| CEC - Canada     | CSA 2310046                         |
| NEC - USA        | CSA 2310046                         |
| EAC              | RU C-GB.F506.B.00098                |
| INMETRO - Brazil | NCC 13.2189 X                       |
| SAC - China      | NEPSI GYJ16.1406X                   |
| UKRAINE          | UA.TR.047.C.0408-13 & 2937          |
| CCoE - India     | PESO P365300/7 & P365300/12         |
| ABS              | 14-LD1183401-PDA                    |
| LLOYD'S          | 10/00056(E1)                        |
| RMRS             | 14.02755.315                        |