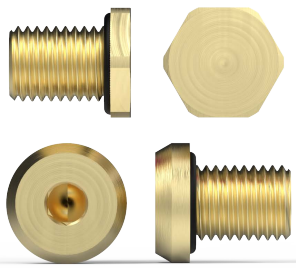
PRODUCT TYPE SPMH & SPHH

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



REFERENCE NUMBER: 7.2.0

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

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
	O-ring - Nitrile -30°C to +100°C
	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)

CERTIFICATION:

ATEX	I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db 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 Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Class I Zone 1 Ex d IIC / Ex e IIC Class II Zone 21 Ex tb IIIC
NEC - USA	Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb Class II Zone 21 AEx tb IIIC Db
EAC	PB Ex d I Mb X / 1Ex d IIC Gb X / PB Ex e I Mb X / 1Ex e IIC Gb X 2Ex nR IIC Gc X / Ex tb IIIC Db X
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 Gb / Ex e IIC Gb
UKRAINE	Ex d IU / Ex d IICU / Ex e IU / Ex e IIU
CCoE - India	Ex d IIC Gb / Ex e IIC Gc
ABS	Specified ABS Rules
LLOYD'S	Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc
RMRS	Ex d IC / Ex d IIC / Ex e IC / Ex e IIC / Ex tb IIIC

CERTIFICATION No:

ATEX	SIRA 09ATEX1320X & SIRA 09ATEX4323X
IECEx	IECEx SIR 09.0131X
CEC - Canada	CSA 2310046
NEC - USA	CSA 2310046
EAC	TC RU C-GB.BH02.B.00693-18
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

SPHH & SPMH DIMENSIONAL DATA

STOPPING PLUG INFORMATION TABLE (ALL DIMENSIONS IN mm)

ISO Metric Thread	A/F	Overall Length	Weight	NPT Thread	A/F	Overall Length	Weight Kgs
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				

STOPPING PLUG INFORMATION TABLE (ALL DIMENSIONS IN mm)

ISO Metric Thread	Hex Socket A/F	Overall Length	Weight	NPT Thread	Hex Socket A/F	Overall Length	Weight Kgs
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				

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.