



# PLANT STANDARD BHOPAL

BP 743 33 99

17/27

Rev. No. 02

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SUPERSEDES  
BP 743 33 99 Rev 01

## SOLDERING SOCKETS-TUBULAR LUG ( FOR SPECIFIED CABLE SIZE )

### 1. SCOPE

- 1.1 This standard gives information as to the correct designation, material, dimensional requirements & stock position of tubular lug soldering sockets suitable for cables of sizes from 7/1.118 (7/1044) to 127/2.612 (127/0."103).

### 2. DEFINITION

#### 2.1 Soldering Socket:

A socket into which the conductor of an electric cable can be soldered and which is of suitable shape externally for making connection between the cable and other parts of the circuit by means of a bolt, clamp or other suitable device.

#### 2.2 Lug Socket:

A soldering socket with a shank or projecting lug having smooth flat surfaces.

### 3. DESIGNATION

#### 3.1 On Purchase Indent:

Ref.No-Type-Soldering Tubular lug Socket to BP 743 33 99.

For example: 10 E, Type 1 Soldering Tubular Lug Socket to BP 743 33 99

#### 3.2 On Purchase Orders/Enquiries:

While issuing enquiries and purchase orders enclose a copy of this standard.

Only Standard type 1 will be ordered by purchase department, irrespective of types included in designation. The type 1 will be bent to types 2 & 3 in the shop as required.

### 4. MATERIAL

- 4.1 Solid drawn copper tubing having a conductivity of not less than 80% of that of standard annealed copper as stated in BS:91.

### 5. COMPLIANCE WITH STANDARDS

- 5.1 Dimensions & Tolerances : Conform to BS:91 Dimensions reproduced in Table - I.

#### 5.2 Material:

Solid drawn copper tubing with tin plating as stated in BS:91.

Revision :

Reviewed &amp; Updated

Issued by :

STANDARDS AND MATERIALS GROUP  
TECHNICAL SERVICES DEPARTMENT

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## 5.3 Marking:

For specified currents as stated in BS:91.

## 6. NOTES

- 6.1 These Soldering Tubular Lug Sockets are manufactured to metric dimensions.
- 6.2 For soldering tubular lug sockets for specified current sizes see standard BP 743 33 98
- 6.3 Code nos. have been allotted to standard stock sizes as per MMI 2000
- 6.4 The bolt hole 'E' shall, unless otherwise specified, be made to the standard dimensions. If the socket is intended for use with paper insulated cable the bolt hole may be enlarged to the "Max" dimensions.
- 6.5. A sample of one metre long tube, duly certified that the same material is used in the manufacture of components shall be, supplied for testing.



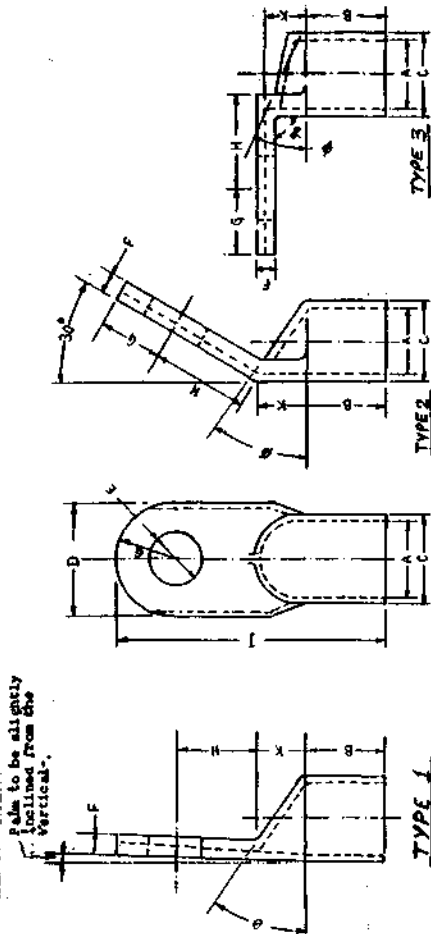
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all dimensions are in mm unless otherwise stated.

REF. NO. OF SOCKET	NO. & DIA OF WIRES	NOM. AREA (sq. cm)	APPROX CURRENT LARGEST CONDUCTOR		DIA OF BORE A	B	C	D	E (See Note 6.4)		F	G	H	J	K	SUB CODE
			MAX.	AMP					Std.	Max.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	19
2 E	7/1.118	.06	38	50	4.75	9.50	6.17	8.89	6.35	-	1.42	4.75	6.35	23.60	3.20	011
4 E	7/1.626	.14	56	89	6.35	12.70	8.18	11.81	7.15	-	1.83	6.35	10.30	33.35	3.95	-
6 E	19/1.321	.26	78	123	7.95	12.70	10.77	15.29	8.75	10.30	2.84	7.95	11.90	38.90	6.35	038
7 E	19/1.626	.39	102	160	9.50	14.30	13.18	18.62	10.30	11.90	3.66	9.50	12.70	44.45	7.95	046
10 E	19/2.106	.65	172	262	11.90	19.05	16.59	23.39	11.90	13.50	4.67	12.70	14.30	55.55	9.50	054
11 E	37/1.829	.97	219	340	14.30	22.20	19.56	27.69	13.50	16.65	5.28	14.30	15.90	61.90	9.50	062
13 E	37/2.108	1.29	262	412	16.65	28.60	22.56	32.08	13.50	19.85	5.89	17.45	20.65	77.80	11.10	070
14 E	37/2.616	1.94	342	530	20.65	31.75	27.94	39.73	16.65	19.85	7.32	20.65	20.65	85.70	12.70	-
15 E	61/2.362	2.58	425	630	23.80	38.10	31.12	44.70	16.65	23.80	7.32	23.80	23.80	100.00	14.30	-
17 E	61/2.616	3.23	490	739	26.20	44.45	34.32	49.28	19.85	23.80	8.13	27.00	23.80	111.10	15.90	-
18 E	91/2.616	4.84	647	952	31.75	47.60	40.89	59.00	23.80	27.00	9.14	30.15	25.40	120.65	17.45	-
20 E	127/2.616	6.45	785	1188	36.50	55.55	46.25	67.11	23.80	30.15	9.75	34.15	28.60	138.90	20.65	-







Conductor	Nominal	Sectional Area <sup>2</sup> (mm <sup>2</sup> )	Wire	Construction No./Dia. of Conductor (mm)	Thick. of Insulation (mm)	Dia. of Finished wire (mm)	Tolerance of overall diam. (mm)	Conductor Resistance (Ω/km) (20°C)	Test Voltage (V/1 min.)	Insulation Resistance (MΩ/km) (20°C)	Surface Leakage Resistance (MΩ)
250	61/77/0.26	22.6	3.0	28.8	±1.2	5,400	900	50	1,000	5,400	100
200	37/102/0.26	20.2	3.0	26.4	±1.1	5,400	1,000	60	900	5,400	70
150	37/76/0.26	17.5	2.5	22.7	±1.0	5,400	1,000	80	1,000	5,400	90
100	37/51/0.26	14.4	2.5	19.6	±0.9	5,400	1,000	80	1,000	5,400	100
80	19/79/0.26	12.7	2.5	17.9	±0.9	5,400	1,000	90	1,000	5,400	100
50	19/50/0.26	10.2	2.5	15.4	±0.8	5,400	1,000	100	1,000	5,400	100

Table 2 1,500V Fluonlex Insulated Wire (WFM2)

REGD  
10.10.21  
DWN. M. Mishima 18.10.23  
CHKD  
APPRD. K. Harada

MATERIAL SPEC.

Hitachi, Ltd.  
Tokyo Japan

HITACHI WORKS DWG. No.  
10W702-362  
SH. No. SH. 3 OF 3

REVISIONS

SYM

DATE

REVID

CHKD

DWG. FILE



298—ZOL/MOI		1 2 3 4 5																	
SPEC. NO.		TITLE																	
E0028		FLAME-RETARDANT FLUONLEX INSULATED WIRE (WFN2)																	
<p>1. <u>Scope</u></p> <p>This specification describes 1500V flame-retardant *FLUONLEX insulated wire (WFN2) to be used for electrical machines.</p> <p>* Registered trade-name of Hitachi Cable Ltd. for flame-retardant flexible modified ETFE.</p>																			
<p>2. <u>Material and Construction</u></p> <p>2.1 <u>Conductor</u></p> <p>The conductor shall be stranded conductor consists of tinned annealed copper wires in accordance with JIS. C 3152.</p> <p>2.2 <u>Separator</u></p> <p>A suitable separator shall be applied over the conductor.</p> <p>2.3 <u>Insulation</u></p> <p>The insulation shall be an extruded layer of black fluonlex.</p> <p>The average thickness of insulation shall be not less than 90% of the value given in the attached table and the minimum thickness shall be not less than 80% of the value given in the attached table.</p>																			
SYN																			
REVISIONS																			
DATE																			
REVD.																			
CHGD.																			
REV.																			
MTR																			

DWG. NO. 10W702-362		HITACHI WORKS DWG. No.	
10W702-362		10W702-362	
SH. No. 1		SH. 1 OF 3	

Hitachi, Ltd.		Hitachi, Ltd.	
Tokyo Japan		Tokyo Japan	

DWG. NO. 10W702-362		HITACHI WORKS DWG. No.	
10W702-362		10W702-362	
SH. No. 1		SH. 1 OF 3	