

Connectors

LEADS WITH INTEGRALLY MOULDED SOCKETS

The range of Leads with Integrally moulded sockets is designed to mate with the 2 or 3 pin connectors as fitted on "Weston"

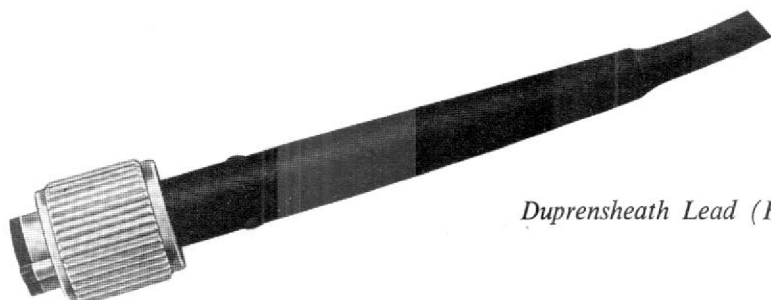
RESISTANCE THERMOMETERS
PRESSURE TRANSMITTERS
TACHOMETER GENERATORS
BULK HEAD CONNECTORS
ICE WARNING SYSTEM

Details of the various fittings, cable and socket materials are given on pages 3 and 4.

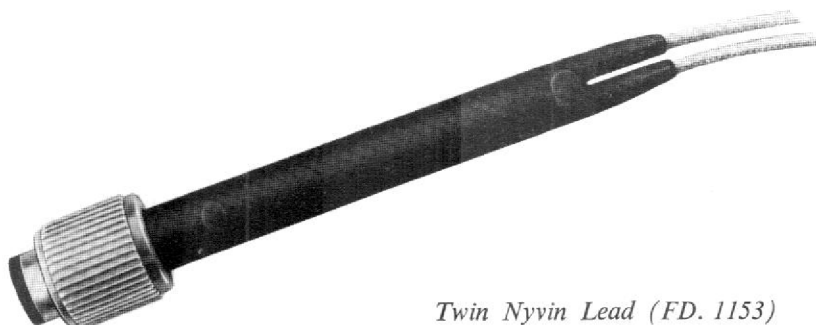
All lead conductors are of stranded copper wire and each single conductor has a nominal resistance of 0.01 ohms per foot.

When selecting leads for a particular application special attention should be given to the materials used in manufacture to ensure that they are compatible with their environment.

The chart overleaf is intended to give a guide on the properties of the materials used in the manufacture of Leads with Integral sockets.



Duprensheath Lead (FD. 751)



Twin Nyvin Lead (FD. 1153)

Guide to the properties of materials used in the manufacture
of Leads with Integral Moulded Sockets.

	NYVIN	TERSIL	BLUE-PREN	EFGLAS	FLUORINATED SILICONE	NYPREN	BLACK-PREN
Ozone Resist.	Good	Excellent	Poor	Excellent	Excellent	Good	Good
Oil Resist.	Excellent	Excellent	Poor	Excellent	Excellent	Good	Good
Petrol Resist.	Excellent	Excellent	Poor	Excellent	Good	Fair	Fair
Water Resist.	Good	Excellent	Excellent	Excellent	Good	Good	Good
DTD 585	Excellent	Excellent	Poor	Excellent	Excellent	Fair	Fair
Skydrol	Excellent	Excellent	Poor	Excellent	Fair	Poor	Poor
Ester Base Oil	Excellent	Excellent	Poor	Excellent	Excellent	Poor	Poor
H.T.P.	Not suitable	Excellent	Poor	Not suitable	Good	Not suitable	Poor
Strength	Excellent	Excellent	Excellent	Good	Fair	Excellent	Excellent
Abrasion Resist.	Excellent	Good	Excellent	Good	Poor	Good	Good
Resilience	Poor	Poor	Excellent	Poor	Good	Poor	Good
Heat Resist.	Good	Good	Fair	Excellent	Excellent	Fair	Fair
Low Temp. Resist.	Fair	Fair	Excellent	Excellent	Excellent	Fair	Fair



LEADS WITH INTEGRALLY MOULDED SOCKETS

No. of Cores	Lead Covering	Socket Material	Max. Temp. °C Limitation		Weight per ft	For use with Model	Mating Bulk Head Connector Part No.	Special Remarks	Outline drawing F.D.
			Lead	Socket					
2	Blue or Black Pren.	Blue or Black Pren.	90	90	0.53 oz (15 g)	S110 S168 S171	168790 168794 174077	For replacement purposes only. For new applications use FD,1119.	751
2	Blue Pren.	Blue Pren	90	90	0.53 oz (15 g)	S171	-	Locating key on socket orientated to make it non-interchangeable with FD,751 Lead.	982
2	Blue Pren (Round Section)	Blue Pren	90	90	0.7 oz (19.8 g)	S110 S168 S171	168790 168794 174077		1119
2	Blue Nypren	Blue Pren (Nylon Covered)	90	90	0.85 oz (24 g)	S110 S168	168790 168794	Compatible with E.E.L.3 Oils	1066
2	Nyvin	Blue Pren	90	90	0.22 oz (6.2 g)	S110 S168 S171	168790 168794 174077	Compatible with high Octane and Kerosene fuels. Skydrol E.E.L.3 (Lead only)	1157
2	Tersil	Blue Pren	190	90	0.24 oz (6.8 g)	S110 S168 S171	168790 168794 174077	Compatible with high Octane and Kerosene fuels. Skydrol E.E.L.3 (Lead only)	1050
2	Efglas	Fluorinated Silicone Rubber	250	190	0.5 oz (14 g)	S110 S168 S171	168790 168794 174077	Compatible with hydraulic fluids, etc.	1276

* An additional weight of 1oz (28.35 grammes) for socket must be added to lead weight.



No. of Cores	Lead Covering	Socket Material	Max. Temp. °C Limitation		Weight per ft	For use with Model	Mating Bulk Head Connector Part No.	Special Remarks	Outline drawing F.D.
			Lead	Socket					
2	Blue Nypren	Blue Pren	90	90	0.85 oz (24 g)	S110	168790 168794 174077	2 pin socket each end of cable	1100
2	Black Pren	Black Pren	90	90	0.6 oz (17 g)	-	168790 168794 174077	2 pin socket each end of cable	852
3	Blue Pren	Blue Pren	90	90	0.86 oz (24.4 g)	S122	169343 174116		766
3	Blue Nypren	Blue Pren (Nylon Covered)	90	90	1.1 oz (31 g)	S122	169343 174116	Compatible with E.E.L.3. oils	1067
3	Blue Pren	Blue Pren	90	90	0.86 oz (24.4 g)	S110	168790 168794 174077	2 pin socket 2 cores connected to one pin (for long run Resistance Bulb installations)	996
3	Blue Pren	Blue Pren	90	90	1.1 oz (31 g)	-	170552	2 pin socket 1 core connected to earth via sleeve of socket	921
3	Black Pren	Black Pren	90	90	1.1 oz (31 g)	-	170552	2 pin socket each end 1 core connected to earth via casing of socket	922
3	Efglas	Fluorinated Silicone	250	190	0.75 oz (21 g)	S122	169343 174116	Compatible with all hydraulic fluids etc.	1277
3	Tersil	Blue Pren	190	90	0.75 oz (21 g)	S122	169343 174116	Compatible with high Octane and Kerosene. Skydrol - lead only.	1211

* An additional weight of 1oz (28.35 grammes) for socket must be added to lead weight.

PREFERRED LENGTHS AND CODE NUMBERS

FD.751 (Blue-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.180
6ft	(1.829 m)	L.5.181
9ft	(2.743 m)	L.5.182
12ft	(3.658 m)	L.5.183
15ft	(4.572 m)	L.5.184
20ft	(6.096 m)	L.5.185

FD.852 (Black-Pren)		
L. SPEC. NO.		
11 in	(.280 m)	L.5.391
1ft 9 in	(.533 m)	L.5.390
2ft	(.610 m)	L.5.392
1ft 6 in	(.457 m)	L.5.393

FD.751 (Black-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.400
6ft	(1.829 m)	L.5.401
9ft	(2.743 m)	L.5.402
12ft	(3.658 m)	L.5.403
15ft	(4.572 m)	L.5.404
20ft	(6.096 m)	L.5.405

FD.852 (Blue-Pren)		
L. SPEC. NO.		
11in	(.28 m)	L.5.355
1ft 4 in	(.406 m)	L.5.357
1ft 9 in	(.533 m)	L.5.356
2ft 2 in	(.615 m)	L.5.358
2ft 6 in	(.762 m)	L.5.361
3ft	(.914 m)	L.5.359
5ft	(1.524 m)	L.5.360
6ft	(1.829 m)	L.5.363
12ft	(3.658 m)	L.5.362

FD.766 (Blue-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.200
6ft	(1.829 m)	L.5.201
9ft	(2.743 m)	L.5.202
12ft	(3.658 m)	L.5.203
15ft	(4.572 m)	L.5.204
20ft	(6.096 m)	L.5.205

FD.921 (Blue-Pren)		
L. SPEC. NO.		
2ft	(.610 m)	L.5.632
3ft	(.914 m)	L.5.631
4ft	(1.219 m)	L.5.305
5ft	(1.524 m)	L.5.306
6ft	(1.829 m)	L.5.308
7ft	(2.134 m)	L.5.307
12ft	(3.658 m)	L.5.309

PREFERRED LENGTHS AND CODE NUMBERS (CONT.)

FD.922 (Black-Pren)		
L. SPEC. NO.		
1ft	(.305 m)	L.5.342
1ft 6in	(.457 m)	L.5.340
2ft	(.610 m)	L.5.338
10ft	(3.048 m)	L.5.341
12ft	(3.658 m)	L.5.621
2ft 6in	(.762 m)	L.5.335

FD.1050 (Tersil/Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.491
6ft	(1.829 m)	L.5.492
9ft	(2.743 m)	L.5.493
12ft	(3.658 m)	L.5.494
15ft	(4.572 m)	L.5.495
20ft	(6.096 m)	L.5.496

FD.982 (Blue-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.438
6ft	(1.829 m)	L.5.439
9ft	(2.743 m)	L.5.440
12ft	(3.658 m)	L.5.441
15ft	(4.572 m)	L.5.442
20ft	(6.096 m)	L.5.443

FD.1066 (Blue Nypren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.481
6ft	(1.829 m)	L.5.482
9ft	(2.743 m)	L.5.483
12ft	(3.658 m)	L.5.484
15ft	(4.572 m)	L.5.485
20ft	(6.096 m)	L.5.486

FD.996 (Blue-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.295
6ft	(1.829 m)	L.5.294
9ft	(2.743 m)	L.5.290
15ft	(4.572 m)	L.5.293
20ft	(6.096 m)	L.5.457

FD.1067 (Blue-Nypren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.261
6ft	(1.829 m)	L.5.262
9ft	(2.743 m)	L.5.263
12ft	(3.658 m)	L.5.264
15ft	(4.572 m)	L.5.265
20ft	(6.096 m)	L.5.266

PREFERRED LENGTHS AND CODE NUMBERS (CONT.)

FD.1100 (Blue-Nypren)		
L. SPEC. NO.		
2ft 6 in	(.762 m)	L.5.514
3ft	(.914 m)	L.5.516
3ft 6 in	(1.066 m)	L.5.517
9ft	(2.743 m)	L.5.515

FD.1157 (Nyvin-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.585
6ft	(1.829 m)	L.5.586
9ft	(2.743 m)	L.5.587
12ft	(3.658 m)	L.5.588
15ft	(4.572 m)	L.5.589
20ft	(6.096 m)	L.5.590

FD.1119 (Blue-Pren)		
L. SPEC. NO.		
2ft	(.610 m)	L.5.540
3ft	(.914 m)	L.5.539
4ft	(1.219 m)	L.5.537
7ft	(2.134 m)	L.5.536
9ft	(2.743 m)	L.5.538
15ft	(4.572 m)	L.5.545
20ft	(6.096 m)	L.5.542

FD.1211 (Tersil-Pren)		
L. SPEC. NO.		
3ft	(.914 m)	L.5.555
6ft	(1.829 m)	L.5.556
9ft	(2.743 m)	L.5.557
12ft	(3.658 m)	L.5.558
15ft	(4.572 m)	L.5.559
20ft	(6.096 m)	L.5.560

FD.1277 Efglas Silicone Rubber		
L. SPEC. NO.		
3ft	(.914 m)	L.5.725
6ft	(1.829 m)	L.5.726
9ft	(2.743 m)	L.5.727
12ft	(3.658 m)	L.5.728
15ft	(4.572 m)	L.5.729
20ft	(6.096 m)	L.5.730

FD.1276 Efglas Silicone Rubber		
L. SPEC. NO.		
3ft	(.914 m)	L.5.715
6ft	(1.829 m)	L.5.716
9ft	(2.743 m)	L.5.717
12ft	(3.658 m)	L.5.718
15ft	(4.572 m)	L.5.719
20ft	(6.096 m)	L.5.720

DEMOUNTABLE CONNECTOR

PART No. 179737

Primarily designed for use with the Model S110 Resistance Thermometer, the Demountable Connector is equally suitable for mating with any model or component which makes use of the special Weston 2 pin receptacle.

The Demountable Connector meets the general requirements of specification B.S.G.2 - 100 and will withstand a maximum temperature of +200°C.

The connector has been designed to accept size 20 EFGLAS cables with copper conductors but other cables may be used if necessary provided they are of similar size. A feature of the connector is that it may be re-used twice for the replacement of broken leads.

Construction

When the spring ring (7) is removed from the connector, the assembly splits into two major halves, a contact assembly and a cable sleeve, with a separate loose metal tube (6) and two insulating sleeves (5). The contact assembly is provided with two short leads (3) each approximately 1 inch in length.

Assembly.

- a) Feed two lengths of Efglas 20 cable, (or alternative cable) through the two holes in the cable sleeve (8), so that about 2 inches protrude from the inside of the sleeve.
- b) Fit an insulating sleeve (5) over each cable and bare the ends back approximately 3/16".
- c) Pass the metal sleeve (6) over the two cables.
- d) Crimp the two cables to the two short leads from the contact assembly (3) using in-line crimp connectors (4) and a CANNON EKKE 1612 crimping tool using jaw marked 16.
- e) Slide the sleeves (5) over the crimp joints.
- f) Smear the two ends of the loose metal tube (6) with Silicone grease.
- g) Push the two halves of the assembly together until they interlock.

- h) Fit Locking ring (7) into the channel formed by the interlocking shoulders of the two pieces.

Note. It may be necessary to apply pressure to hold the two halves together while the ring is being sprung back into position.

- i) Squeeze down pinch-clip (10) with pliers to grip cable in silicone rubber cable sleeve.

Rewire

To replace a cable the connector is opened by removing the spring ring and the cable pinch clip. The in-line crimp connectors are then cut off the lead ends, with the minimum of lead wastage, the covering cleaned back and new in-line connectors fitted, "Hellerman Type He 1923"

The connector is then re-assembled as before using a new pinch clip Pt.No.179747.

The connector may be rewired twice before the leads fitted to the contact assembly become too short to handle.

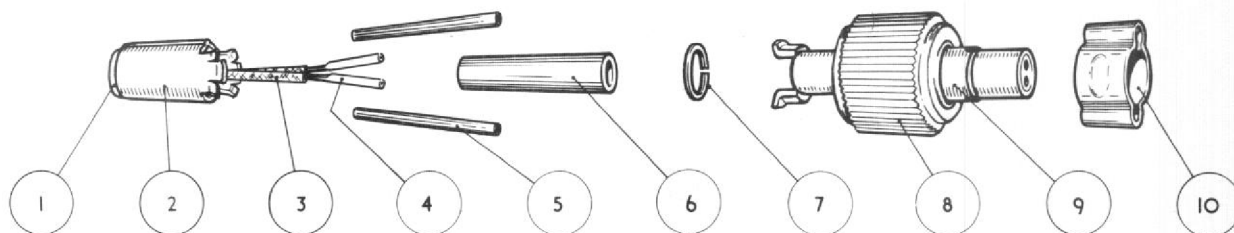
Spares required for the re-wiring operation are:-

- 2 off in-line connectors Hellerman type HC1923
- 1 off pinch clip Pt.No. 179747.

Dimensions: Fixing Diagram FD 1369

Weight: Approx. 1 oz.

DETAIL ASSEMBLY Demountable Connector (Part No. 179737)



- 1 Silicone rubber insulator
- 2 Contact assembly housing
- 3 Leads from contact assembly
- 4 In-line connectors (Hellerman Type HE 1923)
- 5 Insulator sleeves

- 6 Metal sleeve
- 7 Spring ring
- 8 Cable sleeve
- 9 Lock nut
- 10 Pinch ring No. 179747

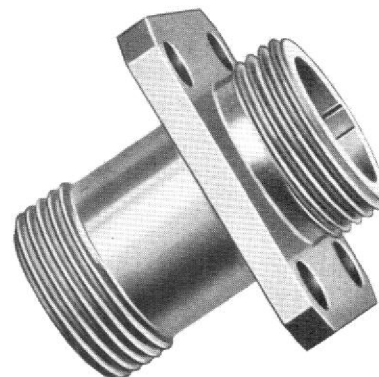
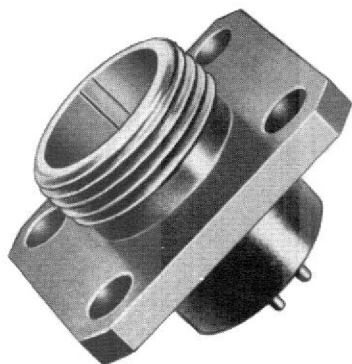
BULKHEAD CONNECTORS

A number of connectors employing 2 or 3-pin glass seals are available for use in conjunction with leads having 2 and 3-pin moulded connectors.

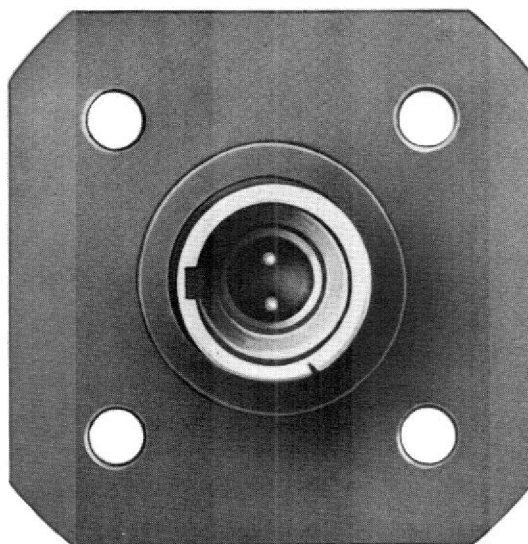
The connector housings are manufactured from nickel plated brass.

When used with the appropriate leads the connectors form a water-tight seal.

For details of suitable leads see Section 18 in conjunction with references given overleaf.



*Typical Bulkhead
Connectors*



BULKHEAD CONNECTORS

PART NUMBER	DESCRIPTION	APPROX. WEIGHT	MATING LEADS			F.D.
168794	Single ended 2 pin, square flange 1 x 1 in, 4 x No.4BA clearance holes	.75 oz (21 g)	FD. 751 FD. 852 FD.1153	FD.1119 FD.1157 FD.1100	FD.1050 FD. 996	850
168790	Double ended 2 pin, square flange 1 x 1 in, 4 x No.4BA clearance holes	.75 oz (21 g)	FD. 852 FD. 751 FD.1100	FD.1119 FD.1157 FD. 996	FD.1050	851
170552	Single ended 2 pin and earth, square flange 1 x 1 in, 4 x No.4BA clearance holes	.75 oz (21 g)	FD. 921 FD. 922			920
174077	Double ended 2 pin, square flange 1.5 in x 1.5 in, 4 x 0.157 in fixing holes	1 oz (28 g)	FD. 751 FD. 852	FD.1119 FD.1157 FD.1100	FD.1050	1115
174116	Double ended 3 pin, square flange 1 x 1 in, 4 x No.4BA clearance holes	.75 oz (21 g)	FD. 766 FD.1066	FD.1067 FD.1211		1117
169343	Single ended 3 pin square flange 1 x 1 in, 4 x No.4BA clearance holes	.75 oz (21 g)	FD. 766 FD.1066	FD.1067 FD.1211		1118



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