



Connector Selection Guide



za.rs-online.com (South Africa)



www.rs-components.com (International)

TYPE	IEC	ANSI	JIS	TYPE
J				J
K				K
T				T
E				E
N				N
R/S				R/S
B				B
Cu (Copper)				Cu (Copper)

All THERMOCOUPLE connectors use true thermocouple alloys for optimum accuracy, Except for Type R, S & B which use compensating alloys.

Thermocouple Pins

Type	'+' Positive Pin	'-' Negative Pin
J	Iron	Copper Nickel
K	Nickel Chromium	Nickel Alloy
T	Copper	Copper Nickel
E	Nickel Chromium	Copper Nickel
N	Nickel / Chromium / Silicon	Nickel Silicon
R/S	Copper	Copper Alloy
B	Copper	Copper
CU	Copper	Copper

Due to their location in often adverse environments such as hot working zones of furnaces and machinery, temperature sensors are liable to corrosion and mechanical damage. The need for occasional replacement is inevitable and the use of suitable connectors permits error-free fast, positive and reliable interchange with no risk of dangerous cross connection.

These thermocouple plugs and sockets have a technical and practical advantage over other types when terminating thermocouple wires or compensating cable in a wide variety of sizes. The wires are sandwiched between plates of thermocouple compatible material with a clamping screw, accommodating from very fine wires to stranded cables (up to 0.75mm²).

The connectors are colour coded and polarised and will mate with other makes of plugs and sockets. They can be mounted directly on to sheaths of up to 3mm diameter in the case of the miniature version or 1/4" (6.35mm) with the standard version by means of the brass bush available.

The sockets can be supplied as in-line or panel mounting versions with rectangular or circular fascias. The connectors are ruggedly made of glass filled thermoplastic for reliable operation up to 220°C sustained temperature.

The use of thermocouple compatible material eliminates measurement error due to the interconnection and the bright ISA colour coded body ensures clear identity of the type of thermocouple in use.

- Miniature and standard connectors
- Compensated connections ensure high accuracy
- Types K, J, T, E, N, R/S or Copper Copper
- Colour coding ensures clear identification (IEC, ANSI & JIS available)
- Compatible with all other makes of equivalent connectors
- Polarised connector pins guarantee correct polarity
- Withstand high temperature, 220°C continuous
- Rugged construction
- In line or panel mounting connectors, single or multi-way
- Inexpensive
- PCB mounting available
- Duplex versions available
- Wide range of accessories available



**A****IEC Miniature Plug****B****ANSI Miniature Plug****C****JIS Miniature Plug**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9764	70644391	769-1101	70652117	771-8770	70652311
J	Iron	Copper Nickel	455-9714	70644387	769-1108	70652119	771-8761	70652308
T	Copper	Copper Nickel	455-9922	70644402	769-1117	70652122	771-8777	70652313
N	Nickel / Chromium / Silicon	Nickel Silicon	455-9843	70644396	769-1105	70652118	-	-
R/S	Copper	Copper Alloy	455-9887	70644399	769-1114	70652121	771-8773	70652312
B	Copper	Copper	774-7181	70652487	769-1094	70652115	771-8764	70652309
E	Nickel Chromium	Copper Nickel	774-7185	70652488	769-1098	70652116	771-8767	70652310
Cu	Copper	Copper	455-9679	70644384	-	-	-	-

**A****IEC Miniature Socket****B****ANSI Miniature Socket****C****JIS Miniature Socket**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9758	70644390	769-1127	70652125	771-8792	70652317
J	Iron	Copper Nickel	455-9708	70644386	769-1123	70652124	771-8783	70652314
T	Copper	Copper Nickel	455-9916	70644401	769-1133	70652126	771-8799	70652319
N	Nickel / Chromium / Silicon	Nickel Silicon	455-9821	70644395	769-1136	70652127	-	-
R/S	Copper	Copper Alloy	455-9859	70644397	769-1139	70652128	771-8795	70652318
B	Copper	Copper	774-7194	70652490	769-1111	70652120	771-8786	70652315
E	Nickel Chromium	Copper Nickel	774-7197	70652491	769-1120	70652123	771-8789	70652316
Cu	Copper	Copper	455-9663	70644383	-	-	-	-

**A**
**IEC Miniature Quick-wire
Plugs**
B
**ANSI Miniature Quick-wire
Plugs**
C
**JIS Miniature Quick-wire
Plugs**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	381-7435	70643738	769-1158	70652134	771-8815	70652324
J	Iron	Copper Nickel	381-7413	70643736	769-1149	70652131	771-8806	70652321
T	Copper	Copper Nickel	381-7457	70643740	769-1164	70652136	771-8812	70652323
N	Nickel / Chromium / Silicon	Nickel Silicon	381-7485	70643742	769-1151	70652132	-	-
R/S	Copper	Copper Alloy	381-7508	70643744	769-1155	70652133	771-8818	70652325
B	Copper	Copper	774-7191	70652489	769-1142	70652129	771-8809	70652322
E	Nickel Chromium	Copper Nickel	774-7201	70652492	769-1145	70652130	771-8802	70652320
Cu	Copper	Copper	381-7520	70643746	-	-	-	-

**A**
**IEC Miniature Quick-wire
Sockets**
B
**ANSI Miniature Quick-wire
Sockets**
C
**JIS Miniature Quick-wire
Sockets**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	381-7441	70643739	769-1173	70652139	771-8837	70652331
J	Iron	Copper Nickel	381-7429	70643737	769-1170	70652138	771-8828	70652328
T	Copper	Copper Nickel	381-7463	70643741	769-1189	70652143	771-8834	70652330
N	Nickel / Chromium / Silicon	Nickel Silicon	381-7491	70643743	769-1177	70652140	-	-
R/S	Copper	Copper Alloy	381-7514	70643745	769-1186	70652142	771-8830	70652329
B	Copper	Copper	774-7204	70652493	769-1167	70652137	771-8821	70652326
E	Nickel Chromium	Copper Nickel	774-7208	70652494	769-1161	70652135	771-8824	70652327
Cu	Copper	Copper	774-3763	70643741	-	-	-	-

**A**
**IEC Miniature Rectangular
Fascia Socket**
B
**ANSI Miniature Rectangular
Fascia Socket**
C
**JIS Miniature Rectangular
Fascia Socket**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9742	70644389	769-1199	70652146	771-8859	70652337
J	Iron	Copper Nickel	455-9691	70644385	769-1195	70652145	771-8840	70652332
T	Copper	Copper Nickel	455-9900	70644400	769-1206	70652148	771-8856	70652336
N	Nickel / Chromium / Silicon	Nickel Silicon	455-9815	70644394	769-1209	70652149	-	-
R/S	Copper	Copper Alloy	455-9871	70644398	769-1202	70652147	771-8852	70652335
B	Copper	Copper	774-7217	70652497	769-1183	70652141	771-8843	70652333
E	Nickel Chromium	Copper Nickel	774-7210	70652495	769-1192	70652144	771-8846	70652334
Cu	Copper	Copper	455-9657	70644382	-	-	-	-

**A**

**IEC Miniature Panel Mount with
Stainless Steel Bracket**

B

**ANSI Miniature Panel Mount
with Stainless Steel Bracket**

C

**JIS Miniature Panel Mount
with Stainless Steel Bracket**

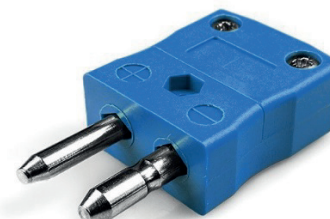
Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9792	70644393	769-1221	70652153	771-8871	70652341
J	Iron	Copper Nickel	455-9720	70644388	769-1212	70652150	771-8862	70652338
T	Copper	Copper Nickel	455-9944	70644404	769-1237	70652158	771-8878	70652343
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7226	70652500	769-1224	70652154	-	-
R/S	Copper	Copper Alloy	-	-	769-1228	70652155	771-8874	70652342
B	Copper	Copper	774-7214	70652496	769-1215	70652151	771-8865	70652339
E	Nickel Chromium	Copper Nickel	774-7223	70652499	769-1218	70652152	771-8868	70652340
Cu	Copper	Copper	774-3767	70652480	-	-	-	-

**A****IEC Miniature Quick-wire Panel Mount with Stainless Steel Bracket****B****ANSI Miniature Quick-wire Panel Mount with Stainless Steel Bracket****C****JIS Miniature Quick-wire Panel Mount with Stainless Steel**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	774-7236	70652502	769-1246	70652161	771-8893	70652348
J	Iron	Copper Nickel	774-7232	70652501	769-1243	70652157	771-8884	70652345
T	Copper	Copper Nickel	774-7242	70652504	769-1252	70652162	771-8890	70652347
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7245	70652505	769-1240	70652159	-	-
R/S	Copper	Copper Alloy	774-7248	70652506	769-1259	70652164	771-8896	70652349
B	Copper	Copper	774-7220	70652498	769-1230	70652156	771-8887	70652346
E	Nickel Chromium	Copper Nickel	774-7239	70652503	769-1234	70652157	771-8880	70652344
Cu	Copper	Copper	-	-	-	-	-	-

**A****IEC Miniature PCB Socket****B****ANSI Miniature PCB Socket****C****JIS Miniature PCB Socket**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	381-7564	70643748	769-1262	70652165	771-8916	70652354
J	Iron	Copper Nickel	381-7558	70643747	769-1268	70652167	771-8907	70652352
T	Copper	Copper Nickel	381-7570	70643749	769-1278	70652170	771-8913	70652353
N	Nickel / Chromium / Silicon	Nickel Silicon	-	-	769-1271	70652168	-	-
R/S	Copper	Copper Alloy	-	-	769-1274	70652169	771-8919	70652355
B	Copper	Copper	774-7251	70652507	769-1256	70652163	771-8900	70652350
E	Nickel Chromium	Copper Nickel	774-7254	70652508	769-1265	70652166	771-8903	70652351
Cu	Copper	Copper	611-8157	70646182	-	-	-	-

**A****IEC Standard Plug****B****ANSI Standard Plug****C****JIS Standard Plug**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9988	70644408	769-1293	70652175	771-8938	70652361
J	Iron	Copper Nickel	455-9966	70644406	769-1284	70652172	771-8929	70652358
T	Copper	Copper Nickel	456-0051	70644414	769-1300	70652177	771-8935	70652360
N	Nickel / Chromium / Silicon	Nickel Silicon	456-0017	70644410	769-1296	70652176	-	-
R/S	Copper	Copper Alloy	456-0039	70644412	769-1290	70652174	771-8931	70652359
B	Copper	Copper	774-7258	70652509	769-1287	70652173	771-8922	70652356
E	Nickel Chromium	Copper Nickel	774-7267	70652512	769-1280	70652171	771-8925	70652357
Cu	Copper	Copper	774-3776	70652482	-	-	-	-

**A****IEC Standard Sockets****B****ANSI Standard Sockets****C****JIS Standard Sockets**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	455-9972	70644407	769-1319	70652182	771-8950	70652365
J	Iron	Copper Nickel	455-9950	70644405	769-1316	70652181	771-8941	70652362
T	Copper	Copper Nickel	456-0045	70644413	769-1325	70652184	771-8957	70652367
N	Nickel / Chromium / Silicon	Nickel Silicon	456-0001	70644409	769-1313	70652180	-	-
R/S	Copper	Copper Alloy	456-0023	70644411	769-1322	70652183	771-8953	70652366
B	Copper	Copper	774-7260	70652510	769-1303	70652178	771-8944	70652363
E	Nickel Chromium	Copper Nickel	774-7264	70652511	769-1307	70652179	771-8947	70652364
Cu	Copper	Copper	774-3779	70652483	-	-	-	-

**A****IEC Standard Quick-wire Plugs****B****ANSI Standard Quick-wire Plugs****C****JIS Standard Quick-wire Plugs**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	362-9991	70643589	769-1335	70652187	771-8972	70652371
J	Iron	Copper Nickel	362-9963	70643587	769-1331	70652186	771-8963	70652368
T	Copper	Copper Nickel	363-0014	70643591	769-1341	70652189	771-8979	70652373
N	Nickel / Chromium / Silicon	Nickel Silicon	363-0036	70643593	769-1344	70652190	-	-
R/S	Copper	Copper Alloy	363-0058	70643595	769-1347	70652191	771-8975	70652372
B	Copper	Copper	774-7273	70652514	769-1329	70652185	771-8966	70652369
E	Nickel Chromium	Copper Nickel	774-7276	70652515	769-1338	70652188	771-8969	70652370
Cu	Copper	Copper	774-3773	70652481	-	-	-	-

**A**
**IEC Standard Quick-wire
Sockets**
B
**ANSI Standard Quick-wire
Sockets**
C
**JIS Standard Quick-wire
Sockets**

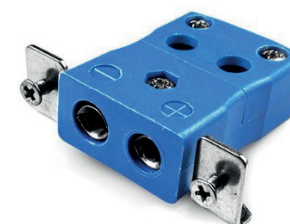
Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	363-0008	70643590	769-1366	70652196	771-8994	70652378
J	Iron	Copper Nickel	362-9979	70643588	769-1357	70652194	771-8985	70652375
T	Copper	Copper Nickel	363-0020	70643592	769-1372	70652198	771-8991	70652377
N	Nickel / Chromium / Silicon	Nickel Silicon	363-0042	70643594	769-1369	70652197	-	-
R/S	Copper	Copper Alloy	363-0064	70643596	769-1363	70652195	771-8997	70652379
B	Copper	Copper	774-7270	70652513	769-1350	70652192	771-8988	70652376
E	Nickel Chromium	Copper Nickel	774-7289	70652518	769-1353	70652193	771-8981	70652374
Cu	Copper	Copper	774-3782	70652484	-	-	-	-

**A****IEC Standard Fascia Sockets****B****ANSI Standard Fascia Sockets****C****JIS Standard Fascia Sockets**

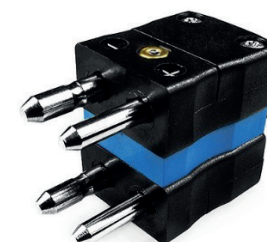
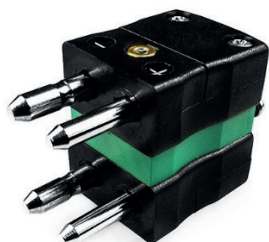
Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	219-4949	70641642	769-1381	70652201	771-9010	70652383
J	Iron	Copper Nickel	219-5009	70641644	769-1388	70652203	771-9001	70652380
T	Copper	Copper Nickel	219-4977	70641643	769-1397	70652206	771-9017	70652385
N	Nickel / Chromium / Silicon	Nickel Silicon	236-4053	70641741	769-1385	70652202	-	-
R/S	Copper	Copper Alloy	219-5037	70641645	769-1394	70652205	771-9013	70652384
B	Copper	Copper	774-7282	70652516	769-1375	70652199	771-9004	70652381
E	Nickel Chromium	Copper Nickel	774-7286	70652517	769-1379	70652200	771-9007	70652382
Cu	Copper	Copper	326-9783	70643576	-	-	-	-

**A****IEC Standard Panel Mount
with Stainless Steel Bracket****B****ANSI Standard Panel Mount
with Stainless Steel Bracket****C****JIS Standard Panel Mount
with Stainless Steel Bracket**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	456-0102	70644416	769-1408	70651992	771-9032	70652389
J	Iron	Copper Nickel	456-0089	70644415	769-1404	70652208	771-9023	70652386
T	Copper	Copper Nickel	774-7305	70652523	769-1414	70651994	771-9039	70652391
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7292	70652519	769-1417	70651995	-	-
R/S	Copper	Copper Alloy	774-7302	70652522	769-1410	70651993	771-9035	70652390
B	Copper	Copper	774-7295	70652520	769-1391	70652204	771-9026	70652387
E	Nickel Chromium	Copper Nickel	774-7298	70652521	769-1401	70652207	771-9029	70652388
Cu	Copper	Copper	-	-	-	-	-	-

**A****IEC Standard Quick-wire Panel Mount with Stainless Steel Bracket****B****ANSI Standard Quick-wire Panel Mount with Stainless Steel Bracket****C****JIS Standard Quick-wire Panel Mount with Stainless Steel Bracket**

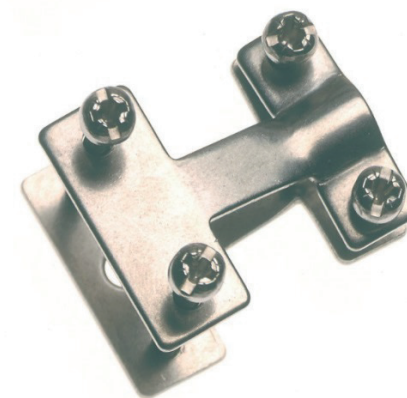
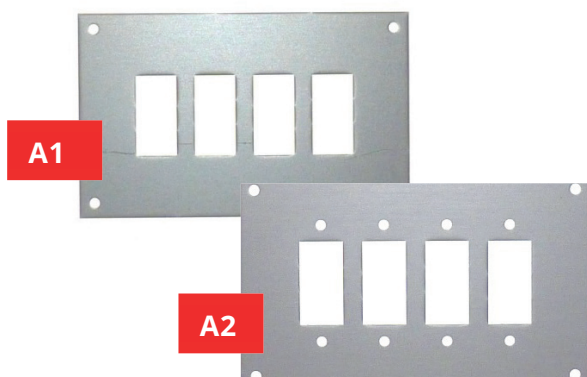
Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	774-7315	70652526	769-1439	70652001	771-9054	70652396
J	Iron	Copper Nickel	774-7311	70652525	769-1420	70651996	771-9045	70652393
T	Copper	Copper Nickel	774-7321	70652528	769-1445	70652003	771-9051	70652395
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7324	70652529	769-1432	70651999	-	-
R/S	Copper	Copper Alloy	774-7327	70652530	769-1436	70652000	771-9057	70652397
B	Copper	Copper	774-7309	70652524	769-1423	70651997	771-9048	70652394
E	Nickel Chromium	Copper Nickel	774-7318	70652527	769-1426	70651998	771-9041	70652392
Cu	Copper	Copper	-	-	-	-	-	-

**A****IEC Standard Duplex Plug****B****ANSI Standard Duplex Plug****C****JIS Standard Duplex Plug**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	236-4069	70641742	769-1454	70652006	771-9076	70652402
J	Iron	Copper Nickel	236-4081	70641744	769-1451	70652005	771-9067	70652400
T	Copper	Copper Nickel	774-7352	70652537	769-1460	70652008	771-9073	70652401
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7349	70652536	769-1458	70652007	-	-
R/S	Copper	Copper Alloy	774-7343	70652534	769-1467	70652010	771-9079	70652403
B	Copper	Copper	774-7337	70652533	769-1448	70652004	771-9060	70652398
E	Nickel Chromium	Copper Nickel	774-7346	70652535	769-1442	70652002	771-9063	70652399
Cu	Copper	Copper	774-3785	70652485	-	-	-	-

**A****IEC Standard Duplex Socket****B****ANSI Standard Duplex Socket****C****JIS Standard Duplex Socket**

Type	‘+’ Contact	‘-’ Contact	A		B		C	
			IEC Colour Code		ANSI Colour Code		JIS Colour Code	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
K	Nickel Chromium	Nickel Alloy	236-4075	70641743	769-1470	70652011	771-9098	70652409
J	Iron	Copper Nickel	236-4097	70641745	769-1476	70652013	771-9089	70652406
T	Copper	Copper Nickel	774-7365	70652541	769-1486	70652015	771-9095	70652408
N	Nickel / Chromium / Silicon	Nickel Silicon	774-7368	70652542	769-1489	70652016	-	-
R/S	Copper	Copper Alloy	774-7361	70652540	769-1482	70652014	771-9091	70652407
B	Copper	Copper	774-7355	70652538	769-1464	70652009	771-9082	70652404
E	Nickel Chromium	Copper Nickel	774-7359	70652539	769-1473	70652012	771-9085	70652405
Cu	Copper	Copper	774-3789	70652486	-	-	-	-

**A**

**Miniature/Standard for Fascia
Sockets Panel**

B

Strain Relief Grommet

C

Cable Clamps

Image	To Suit	Style	2 Way		4 Way		6 Way	
			RS Order Code	Allied Code	RS Order Code	Allied Code	RS Order Code	Allied Code
A1	Miniature	FF	397-1674	70643874	397-1703	70643875	236-4132	70641748
A1	Standard	FF	397-1731	70643877	397-1769	70643879	236-4154	70641750
A2	Miniature	SSPF	611-8191	70646186	611-8214	70646188	611-8208	70646187
A2	Standard	SSPF	611-8236	70646190	611-8258	70646192	611-8270	70646194

Image	To Suit	Pack Size	RS Order Code	Allied Code
B	Miniature or Standard	25	666-7365	70646835

Image	To Suit	RS Order Code	Allied Code
C	Miniature	236-4104	70641746
C	Standard	236-4110	70641747
C	Duplex	313-9987	70643126