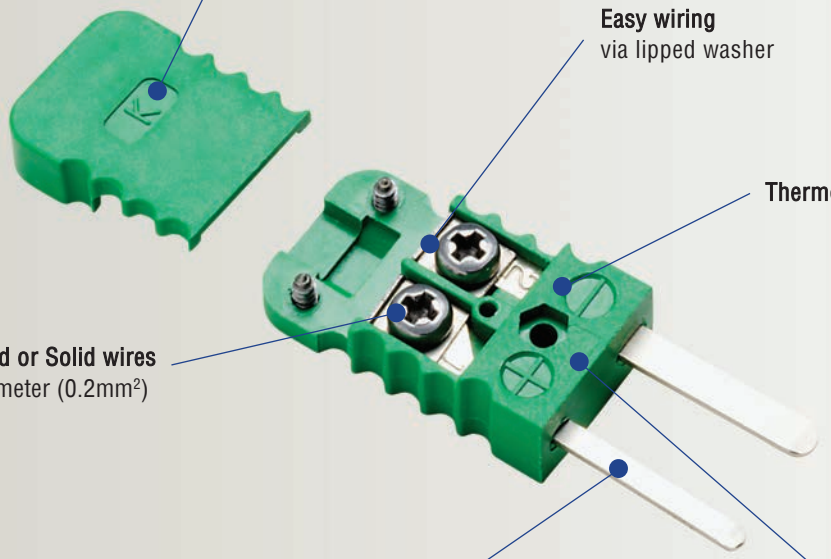
Thermocouple and RTD Connectors



TC Measurement & Control AB

Micro Thermocouple & RTD Connectors - Features



Thermocouple & RTD Identification
220°C version - Body colour coded and thermocouple type indicated on body

Easy wiring
via lipped washer

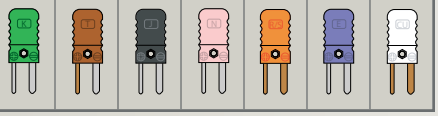
Thermoplastic body rated to 220°C

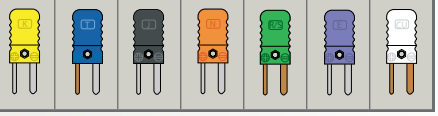
Accepts Stranded or Solid wires
up to 0.5mm diameter (0.2mm²)

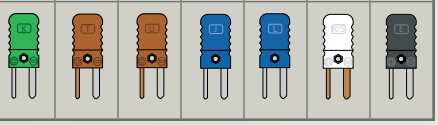
High Purity Thermocouple Alloys
Used for male pin and female socket connections

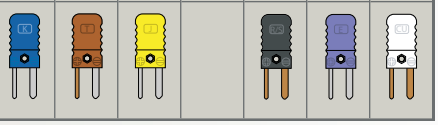
Micro size
Tiny footprint for applications where space is a premium

Colours available: IEC, ANSI, DIN or JIS

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
IEC 60584.3							

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
ANSI MC96.1							

Calibration Type	K	T	U	J	L	R/S	E
Conductors	NiCr/ NiAl	Cu/ Con	Cu/ Con	Fe/ Con	Fe/ Con	Cu/ Alloy 11	NiCr/ Con
DIN 43714							

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
JIS C 1610							

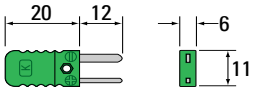
* Not an internationally recognised standard

Micro Plugs rated to 220ºC

M11 Micro Plug







Type K IEC illustrated (M11K-I)

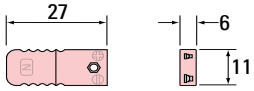
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
M11K-I	K		M11K-A	K	
M11T-I	T		M11T-A	T	
M11J-I	J		M11J-A	J	
M11N-I	N		M11N-A	N	
M11RS-I	R/S		M11RS-A	R/S	
M11E-I	E		M11E-A	E	
M11B-I	B		M11B-A	B	
M11CU	Cu		M11CU	Cu	

Micro Sockets rated to 220ºC

M20 Micro Socket







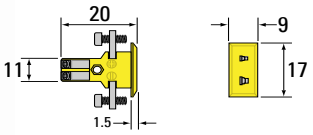
Type N IEC illustrated (M20N-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
M20K-I	K		M20K-A	K	
M20T-I	T		M20T-A	T	
M20J-I	J		M20J-A	J	
M20N-I	N		M20N-A	N	
M20RS-I	R/S		M20RS-A	R/S	
M20E-I	E		M20E-A	E	
M20B-I	B		M20B-A	B	
M20CU	Cu		M20CU	Cu	

M29 Micro Panel Socket - Rectangle Flanged with Bracket







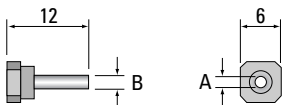
Type K ANSI illustrated (M29K-A). Recommended cutout: 6mm x 14mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
M29K-I	K		M29K-A	K	
M29T-I	T		M29T-A	T	
M29J-I	J		M29J-A	J	
M29N-I	N		M29N-A	N	
M29RS-I	R/S		M29RS-A	R/S	
M29E-I	E		M29E-A	E	
M29B-I	B		M29B-A	B	
M29CU	Cu		M29CU	Cu	

Micro Connector Accessories and Panels

Crimp Adaptors – For Micro Connectors





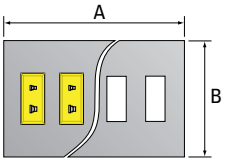
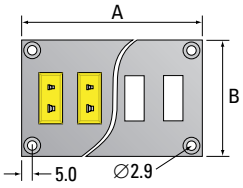
Application
The adaptor can be crimped onto a mineral insulated cable or metal tube so it may then be attached to a micro connector (stainless steel versions may also be brazed). They can also be used to crimp some soft materials such as PVC or PFA wires or cables.

Construction
Brass or Stainless Steel.

Sheath Diameter 'A'	Crimp Dimension 'B'	Part codes for use with 220ºC rated micro connectors: *M11* and *M20*	
		Plain Brass	Stainless Steel*
0.5mm	2.4mm	M8905B	M8005
1.0mm	2.4mm	M8910B	M8010
1.5mm	2.4mm	M8915B	M8015
1.6mm (1/16")	2.4mm	M8916B	M8016
2.0mm	3.2mm	M8920B	M8020
3.0mm	4.5mm	M8930B	M8030
3.2mm (1/8")	4.5mm	M8932B	M8032

* Stainless steel inserts may be crimped or brazed to sheath

Anodised Aluminium Panels – For Flanged Micro Connectors

For use with connector **M29**	**MFP** Panel without panel mounting holes	**MFS** Panel with panel mounting holes
 M29	 Panel thickness = 2mm	 Panel thickness = 2mm

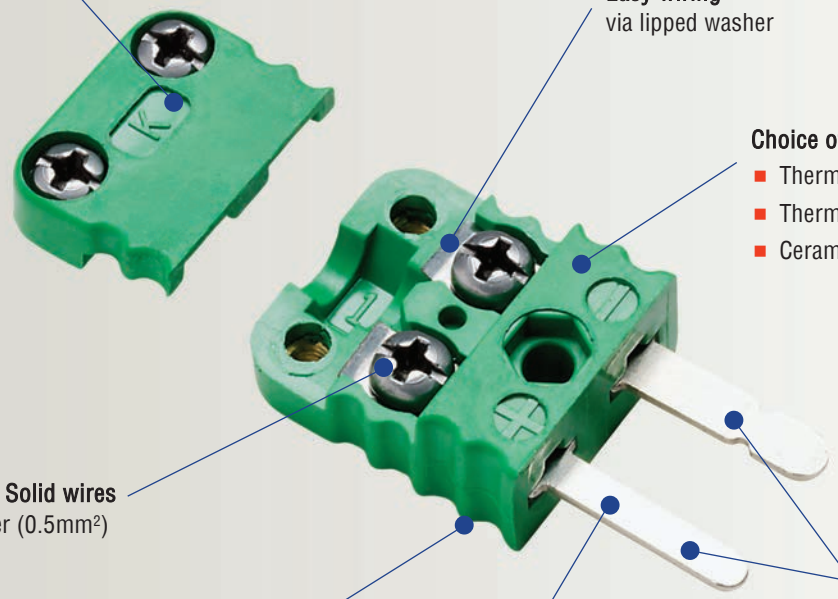
No. of Channels	Dimensions A x B in mm	MFP Aluminium Panel	MFS Aluminium Panel
1	22 x 36	MFP01	MFS01
2	35 x 36	MFP02	MFS02
4	61 x 36	MFP04	MFS04
6	87 x 36	MFP06	MFS06
8	113 x 36	MFP08	MFS08
10	139 x 36	MFP10	MFS10
12	165 x 36	MFP12	MFS12
16	113 x 60	MFP16	MFS16
20	139 x 60	MFP20	MFS20
24	165 x 60	MFP24	MFS24

All dimensions are in mm

Miniature Thermocouple & RTD Connectors - Features

Thermocouple & RTD Identification

- 220°C version - Body colour coded and thermocouple type indicated on body
- 350°C version - Thermocouple type indicated on body
- 650°C version - Colour dot on body



Easy wiring
via lipped washer

Choice of body types:

- Thermoplastic rated to 220°C
- Thermosetting plastic rated to 350°C
- Ceramic rated to 650°C

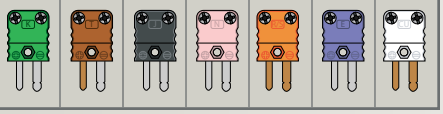
Accepts Stranded or Solid wires
up to 0.8mm diameter (0.5mm²)

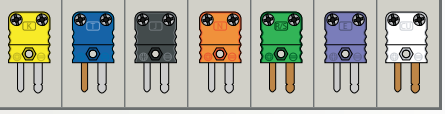
Manufactured in accordance with standard EN 50212

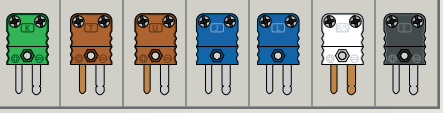
Polarised Flat Pins

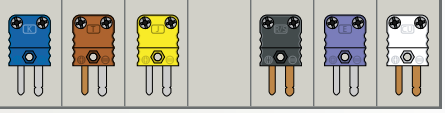
High Purity Thermocouple Alloys
Used for male pin and female socket connections

Colours available: IEC, ANSI, DIN or JIS

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
IEC 60584.3							

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
ANSI MC96.1							

Calibration Type	K	T	U	J	L	R/S	E
Conductors	NiCr/ NiAl	Cu/ Con	Cu/ Con	Fe/ Con	Fe/ Con	Cu/ Alloy 11	NiCr/ Con
DIN 43714							

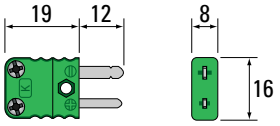
Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
JIS C 1610							

* Not an internationally recognised standard

Miniature Plugs rated to 220°C

F11 Miniature Plug



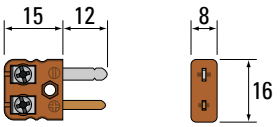


Type K IEC illustrated (F11K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F11K-I	K		F11K-A	K	
F11T-I	T		F11T-A	T	
F11J-I	J		F11J-A	J	
F11N-I	N		F11N-A	N	
F11RS-I	R/S		F11RS-A	R/S	
F11E-I	E		F11E-A	E	
F11B-I	B		F11B-A	B	
F11CU	Cu		F11CU	Cu	

F14 Miniature Plug - Quick Wire



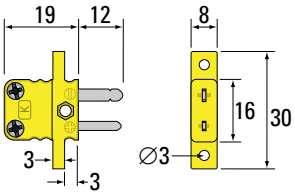


Type T IEC illustrated (F14T-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F14K-I	K		F14K-A	K	
F14T-I	T		F14T-A	T	
F14J-I	J		F14J-A	J	
F14N-I	N		F14N-A	N	
F14RS-I	R/S		F14RS-A	R/S	
F14E-I	E		F14E-A	E	
F14B-I	B		F14B-A	B	
F14CU	Cu		F14CU	Cu	

F37 Miniature Panel Plug - Lugged

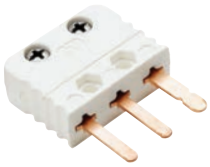


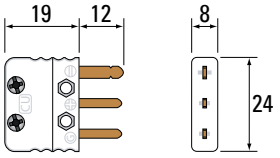


Type K ANSI illustrated (F37K-A). Recommended cutout: 8.5mm x 16.5mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F37K-I	K		F37K-A	K	
F37T-I	T		F37T-A	T	
F37J-I	J		F37J-A	J	
F37N-I	N		F37N-A	N	
F37RS-I	R/S		F37RS-A	R/S	
F37E-I	E		F37E-A	E	
F37B-I	B		F37B-A	B	
F37CU	Cu		F37CU	Cu	

F16 Miniature Plug - Three Pin



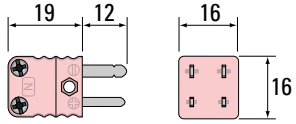


Type CU illustrated (F16CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F16K-I	K		F16K-A	K	
F16T-I	T		F16T-A	T	
F16J-I	J		F16J-A	J	
F16N-I	N		F16N-A	N	
F16RS-I	R/S		F16RS-A	R/S	
F16E-I	E		F16E-A	E	
F16B-I	B		F16B-A	B	
F16CU	Cu		F16CU	Cu	

F91 Miniature Plug - Duplex





Type N IEC illustrated (F91N-I)

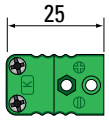
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F91K-I	K		F91K-A	K	
F91T-I	T		F91T-A	T	
F91J-I	J		F91J-A	J	
F91N-I	N		F91N-A	N	
F91RS-I	R/S		F91RS-A	R/S	
F91E-I	E		F91E-A	E	
F91B-I	B		F91B-A	B	
F91CU	Cu		F91CU	Cu	

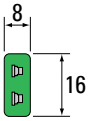
All dimensions are in mm

Miniature Sockets rated to 220°C

F20 Miniature Socket







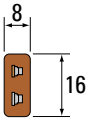
Type K IEC illustrated (F20K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F20K-I	K		F20K-A	K	
F20T-I	T		F20T-A	T	
F20J-I	J		F20J-A	J	
F20N-I	N		F20N-A	N	
F20RS-I	R/S		F20RS-A	R/S	
F20E-I	E		F20E-A	E	
F20B-I	B		F20B-A	B	
F20CU	Cu		F20CU	Cu	

F24 Miniature Socket - Quick Wire



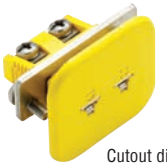


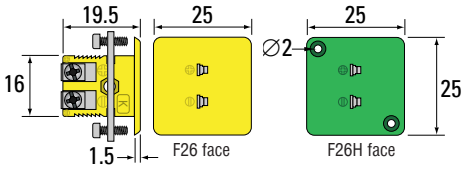


Type T IEC illustrated (F24T-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F24K-I	K		F24K-A	K	
F24T-I	T		F24T-A	T	
F24J-I	J		F24J-A	J	
F24N-I	N		F24N-A	N	
F24RS-I	R/S		F24RS-A	R/S	
F24E-I	E		F24E-A	E	
F24B-I	B		F24B-A	B	
F24CU	Cu		F24CU	Cu	

F26 Miniature Panel Socket - Square Flanged with Bracket



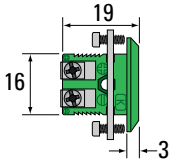
Cutout diameter = 17.5mm


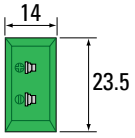
Type K ANSI illustrated (F26K-A). A version with two mounting holes is also available and is designated as part code **F26H**

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F26K-I	K		F26K-A	K	
F26T-I	T		F26T-A	T	
F26J-I	J		F26J-A	J	
F26N-I	N		F26N-A	N	
F26RS-I	R/S		F26RS-A	R/S	
F26E-I	E		F26E-A	E	
F26B-I	B		F26B-A	B	
F26CU	Cu		F26CU	Cu	

F29 Miniature Panel Socket - Rectangle Flanged with Bracket





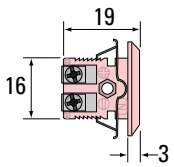


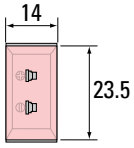
Type K IEC illustrated (F29K-I). Recommended cutout: 8mm x 16.5mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F29K-I	K		F29K-A	K	
F29T-I	T		F29T-A	T	
F29J-I	J		F29J-A	J	
F29N-I	N		F29N-A	N	
F29RS-I	R/S		F29RS-A	R/S	
F29E-I	E		F29E-A	E	
F29B-I	B		F29B-A	B	
F29CU	Cu		F29CU	Cu	

F29S Miniature Panel Socket - Rectangle Flanged with Spring Clip





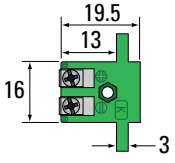


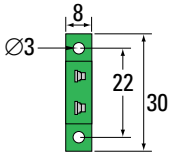
Type N IEC illustrated (F29SN-I). Recommended cutout: 8mm x 16.5mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F29SK-I	K		F29SK-A	K	
F29ST-I	T		F29ST-A	T	
F29SJ-I	J		F29SJ-A	J	
F29SN-I	N		F29SN-A	N	
F29SRS-I	R/S		F29SRS-A	R/S	
F29SE-I	E		F29SE-A	E	
F29SB-I	B		F29SB-A	B	
F29SCU	Cu		F29SCU	Cu	

F27 Miniature Panel Socket - Lugged - Open Back





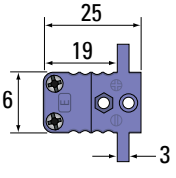


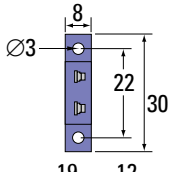
Type K IEC illustrated (F27K-I). Recommended cutout: 8.5mm x 16.5mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F27K-I	K		F27K-A	K	
F27T-I	T		F27T-A	T	
F27J-I	J		F27J-A	J	
F27N-I	N		F27N-A	N	
F27RS-I	R/S		F27RS-A	R/S	
F27E-I	E		F27E-A	E	
F27B-I	B		F27B-A	B	
F27CU	Cu		F27CU	Cu	

F30 Miniature Panel Socket - Lugged - Closed Back







Type E IEC illustrated (F30E-I). Recommended cutout: 8.5mm x 16.5mm

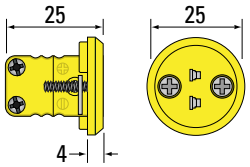
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F30K-I	K		F30K-A	K	
F30T-I	T		F30T-A	T	
F30J-I	J		F30J-A	J	
F30N-I	N		F30N-A	N	
F30RS-I	R/S		F30RS-A	R/S	
F30E-I	E		F30E-A	E	
F30B-I	B		F30B-A	B	
F30CU	Cu		F30CU	Cu	

All dimensions are in mm

Miniature Sockets rated to 220°C

F32 Miniature Panel Socket - Round Flanged



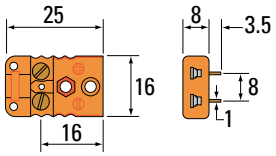


Type K ANSI illustrated (F32K-A). Cutout diameter = 22.5mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F32K-I	K		F32K-A	K	
F32T-I	T		F32T-A	T	
F32J-I	J		F32J-A	J	
F32N-I	N		F32N-A	N	
F32RS-I	R/S		F32RS-A	R/S	
F32E-I	E		F32E-A	E	
F32B-I	B		F32B-A	B	
F32CU	Cu		F32CU	Cu	

F21 Miniature Socket - PCB Bottom Mounting



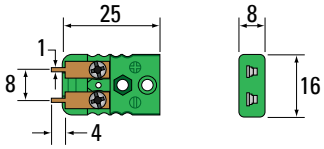



Type R/S IEC illustrated (F21RS-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F21K-I	K		F21K-A	K	
F21T-I	T		F21T-A	T	
F21J-I	J		F21J-A	J	
F21N-I	N		F21N-A	N	
F21RS-I	R/S		F21RS-A	R/S	
F21E-I	E		F21E-A	E	
F21B-I	B		F21B-A	B	
F21CU	Cu		F21CU	Cu	

F23 Miniature Socket - PCB Rear Mounting



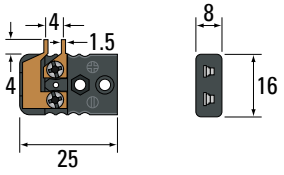


Type K IEC illustrated (F23K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F23K-I	K		F23K-A	K	
F23T-I	T		F23T-A	T	
F23J-I	J		F23J-A	J	
F23N-I	N		F23N-A	N	
F23RS-I	R/S		F23RS-A	R/S	
F23E-I	E		F23E-A	E	
F23B-I	B		F23B-A	B	
F23CU	Cu		F23CU	Cu	

F38 Miniature Socket - PCB Side Mounting



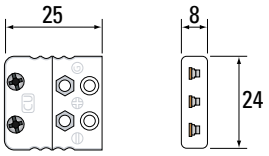


Type J IEC illustrated (F38J-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F38K-I	K		F38K-A	K	
F38T-I	T		F38T-A	T	
F38J-I	J		F38J-A	J	
F38N-I	N		F38N-A	N	
F38RS-I	R/S		F38RS-A	R/S	
F38E-I	E		F38E-A	E	
F38B-I	B		F38B-A	B	
F38CU	Cu		F38CU	Cu	

F25 Miniature Socket - Three Pin



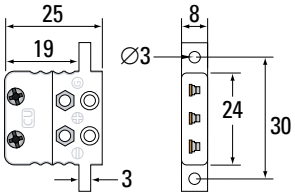


Type CU illustrated (F25CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F25K-I	K		F25K-A	K	
F25T-I	T		F25T-A	T	
F25J-I	J		F25J-A	J	
F25N-I	N		F25N-A	N	
F25RS-I	R/S		F25RS-A	R/S	
F25E-I	E		F25E-A	E	
F25B-I	B		F25B-A	B	
F25CU	Cu		F25CU	Cu	

F31 Miniature Panel Socket - Lugged - Three Pin



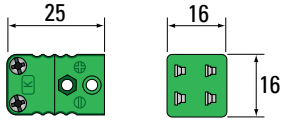


Type CU illustrated (F31CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F31K-I	K		F31K-A	K	
F31T-I	T		F31T-A	T	
F31J-I	J		F31J-A	J	
F31N-I	N		F31N-A	N	
F31RS-I	R/S		F31RS-A	R/S	
F31E-I	E		F31E-A	E	
F31B-I	B		F31B-A	B	
F31CU	Cu		F31CU	Cu	

F92 Miniature Socket - Duplex





Type K IEC illustrated (F92K-I)

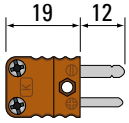
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F92K-I	K		F92K-A	K	
F92T-I	T		F92T-A	T	
F92J-I	J		F92J-A	J	
F92N-I	N		F92N-A	N	
F92RS-I	R/S		F92RS-A	R/S	
F92E-I	E		F92E-A	E	
F92B-I	B		F92B-A	B	
F92CU	Cu		F92CU	Cu	

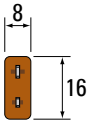
All dimensions are in mm

High Temp Miniature Plugs rated to 350°C

F13 Miniature High Temperature Plug





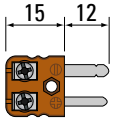


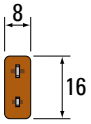
Type K illustrated (F13K)

Part No.	Type	Colour
F13K	K	
F13T	T	
F13J	J	
F13N	N	
F13RS	R/S	
F13E	E	
F13B	B	
F13CU	Cu	

F08 Miniature High Temperature Plug - Quick Wire





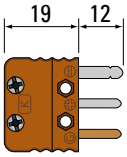


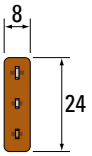
Type K illustrated (F08K)

Part No.	Type	Colour
F08K	K	
F08T	T	
F08J	J	
F08N	N	
F08RS	R/S	
F08E	E	
F08B	B	
F08CU	Cu	

F18 Miniature High Temperature Plug - Three Pin







Type K illustrated (F18K)

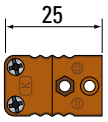
Part No.	Type	Colour
F18K	K	
F18T	T	
F18J	J	
F18N	N	
F18RS	R/S	
F18E	E	
F18B	B	
F18CU	Cu	

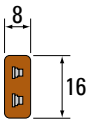
Note: All high temperature connectors are coloured brown. The thermocouple type is embossed on the body.

High Temp Miniature Sockets rated to 350°C

F22 Miniature High Temperature Socket







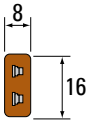
Type K illustrated (F22K)

Part No.	Type	Colour
F22K	K	
F22T	T	
F22J	J	
F22N	N	
F22RS	R/S	
F22E	E	
F22B	B	
F22CU	Cu	

F09 Miniature High Temperature Socket - Quick Wire





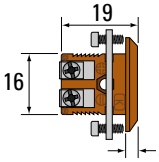


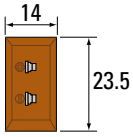
Type K illustrated (F09K)

Part No.	Type	Colour
F09K	K	
F09T	T	
F09J	J	
F09N	N	
F09RS	R/S	
F09E	E	
F09B	B	
F09CU	Cu	

F34 Miniature High Temperature Panel Socket - Rectangle Flanged







Type K illustrated (F34K). Recommended cutout: 8mm x 16.5mm

Part No.	Type	Colour
F34K	K	
F34T	T	
F34J	J	
F34N	N	
F34RS	R/S	
F34E	E	
F34B	B	
F34CU	Cu	

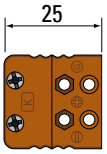
Note: All high temperature connectors are coloured brown. The thermocouple type is embossed on the body.

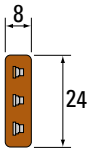
All dimensions are in mm

High Temp Miniature Sockets rated to 350°C

F33 Miniature High Temperature Socket - Three Pin





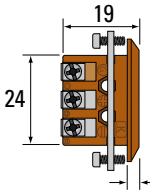


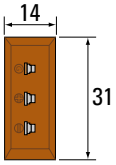
Type K illustrated (F33K)

Part No.	Type	Colour
F33K	K	
F33T	T	
F33J	J	
F33N	N	
F33RS	R/S	
F33E	E	
F33B	B	
F33CU	Cu	

F35 Mini High Temp Panel Socket - Three Pin Rectangle Flanged







Type K illustrated (F35K). Recommended cutout: 8.5mm x 24.3mm

Part No.	Type	Colour
F35K	K	
F35T	T	
F35J	J	
F35N	N	
F35RS	R/S	
F35E	E	
F35B	B	
F35CU	Cu	

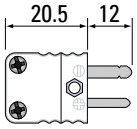
Note: All high temperature connectors are coloured brown. The thermocouple type is embossed on the body.

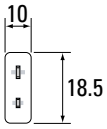
Miniature Ceramic Plugs rated to 650°C

F100 Miniature Ceramic Plug




under-side shown to illustrate colour markings





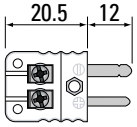
Type K IEC illustrated (F100K-I)

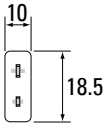
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F100K-I	K		F100K-A	K	
F100T-I	T		F100T-A	T	
F100J-I	J		F100J-A	J	
F100N-I	N		F100N-A	N	
F100RS-I	R/S		F100RS-A	R/S	
F100E-I	E		F100E-A	E	
F100B-I	B		F100B-A	B	
F100CU	Cu		F100CU	Cu	

F140 Miniature Ceramic Plug - Quick Wire




under-side shown to illustrate colour markings





Type K IEC illustrated (F140K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F140K-I	K		F140K-A	K	
F140T-I	T		F140T-A	T	
F140J-I	J		F140J-A	J	
F140N-I	N		F140N-A	N	
F140RS-I	R/S		F140RS-A	R/S	
F140E-I	E		F140E-A	E	
F140B-I	B		F140B-A	B	
F140CU	Cu		F140CU	Cu	

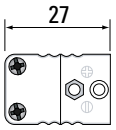
Note: All ceramic connectors are coloured white. The thermocouple type is marked with a coloured dot on the body. For vacuum applications, connectors can be supplied without a coloured dot.

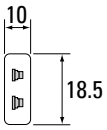
Miniature Ceramic Sockets rated to 650°C

F200 Miniature Ceramic Socket




under-side shown to illustrate colour markings





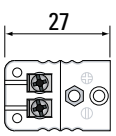
Type K IEC illustrated (F200K-I)

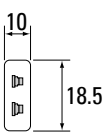
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F200K-I	K		F200K-A	K	
F200T-I	T		F200T-A	T	
F200J-I	J		F200J-A	J	
F200N-I	N		F200N-A	N	
F200RS-I	R/S		F200RS-A	R/S	
F200E-I	E		F200E-A	E	
F200B-I	B		F200B-A	B	
F200CU	Cu		F200CU	Cu	

F240 Miniature Ceramic Socket - Quick Wire




under-side shown to illustrate colour markings





Type K IEC illustrated (F240K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
F240K-I	K		F240K-A	K	
F240T-I	T		F240T-A	T	
F240J-I	J		F240J-A	J	
F240N-I	N		F240N-A	N	
F240RS-I	R/S		F240RS-A	R/S	
F240E-I	E		F240E-A	E	
F240B-I	B		F240B-A	B	
F240CU	Cu		F240CU	Cu	

Note: All ceramic connectors are coloured white. The thermocouple type is marked with a coloured dot on the body. For vacuum applications, connectors can be supplied without a coloured dot.

All dimensions are in mm

Accessories for Miniature Connectors

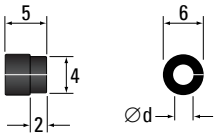
Cable Grommet



Application
The cable grommet is fitted into the exit hole of the connector which prevents dirt or moisture entering the connector when used with wires or cable.

Construction
Silicone rubber ring with collar, slit for easy use. Compresses on the wire or cable when connector is fully assembled.

Temperature Rating
200°C.



Diameter 'd'	Part codes for use with connectors: *F11, F16, F20, F25, F30, F31, F32, F37, F91 and F92* *Can also be used with F13 and F22 but only in conditions below 200°C*
0.5mm	**F4105**
1.0mm	**F4110**
1.5mm	**F4115**
3.0mm	**F4130**

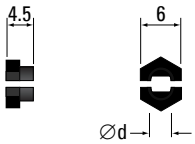
Cable and Wire Insert



Application
Fitted inside the connector, the insert allows the user to hold wires and cables in place, providing a strong grip without the insert protruding outside of the connector.

Construction
Polypropylene for either round or oval cables.

Temperature Rating
110°C.



Approximate wire diameter 'd'	Round or Oval	Part codes for use with connectors: *F11, F13, F16, F20, F22, F25, F30, F31, F32, F37, F91 and F92 in applications up to 160°C*
1.5mm	Round	**F5015**
3.5mm	Round	**F5035**
2.0 x 1.5mm	Oval	**F502015**

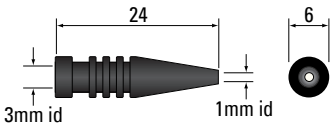
Cable Bending Protection



Application
Provides bending protection for small wires and cables when used with miniature connectors. Reduces potential mechanical damage to the cable. The conical end can be cut back to suit the cable.

Construction
Silicone Rubber.

Temperature Rating
200°C.

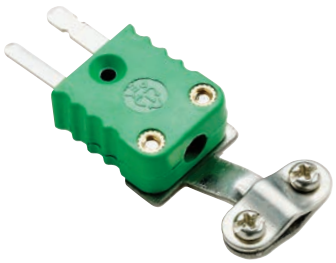


Part code for use with connectors: *F11, F16, F20, F25, F30, F31, F32, F37, F91 and F92* *Can also be used with F13 and F22 but only in conditions below 200°C*
F43

Cable Clamp



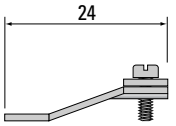
F40 shown

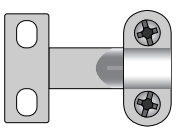


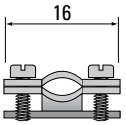
Application
Allows the user to clamp wires and cables in place.

Construction
Stainless steel including stainless steel screws.

Temperature Rating
800°C (only limited by the temperature rating of the cable or connector it is attached to).







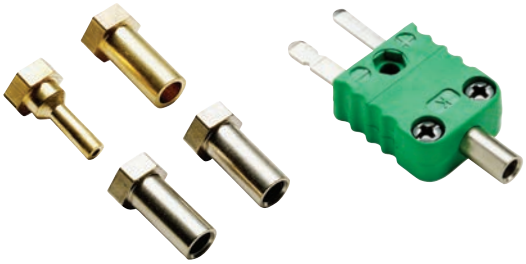
F40 shown

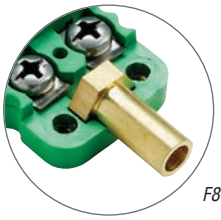
Part code for use with most **220°C** and **350°C** rated mini connectors *(F11, F13, F16, F20, F22, F25, F30, F31, F32 and F37)*	Part code for use with **duplex 220°C** rated mini connectors *(F91 and F92)*	Part code for use with **650°C** rated ceramic connectors *(F100 and F200)*
F40	**F46**	**F45**

All dimensions are in mm

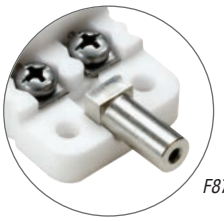
Accessories for Miniature Connectors

Internal Crimp/Braze Adaptor





F8930B shown in plastic connector



F8715 shown in ceramic connector

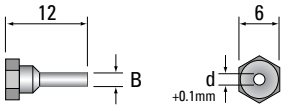
Application
This adaptor can be crimped onto a mineral insulated cable or metal tube so it may then be attached to a miniature connector. A crimp tool is available - see page 30.

Stainless steel adaptors may also be brazed. Brass adaptors can also be used to crimp some soft materials such as PVC or PFA wires and cables.

Construction
For 220°C and 350°C range connectors: Nickel Plated Brass, Brass or Stainless Steel.

For Ceramic connectors: Stainless Steel only.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.



*F89** and F80** style*



*F87** style*

to suit tube diameter 'd'	Crimp diameter 'B'	Part codes for use with **220ºC** and **350ºC** rated connectors: ***F11, F13, F16, F20, F22, F25, F30, F31, F32, F37, F91*** and ***F92***			Part codes for use with **650ºC** rated connectors: ***F100*** and ***F200***
		Nickel Plated Brass	Plain Brass	Stainless Steel*	Stainless Steel*
0.5mm	2.4mm	**F8905**	**F8905B**	**F8005**	**F8705**
0.8mm (1/32")	2.4mm	**F8908**	–	–	–
1.0mm	2.4mm	**F8910**	**F8910B**	**F8010**	**F8710**
1.5mm	2.4mm	**F8915**	**F8915B**	**F8015**	**F8715**
1.6mm (1/16")	2.4mm	**F8916**	**F8916B**	**F8016**	**F8716**
1.8mm	3.2mm	**F8918**	–	–	–
2.0mm	3.2mm	**F8920**	**F8920B**	**F8020**	**F8720**
2.3mm	3.2mm	**F8923**	–	–	–
2.6mm	4.4mm	**F8926**	–	–	–
2.7mm	4.4mm	**F8927**	–	–	–
3.0mm	4.4mm	**F8930**	**F8930B**	**F8030**	**F8730**
3.2mm (1/8")	4.4mm	**F8932**	**F8932B**	**F8032**	**F8732**
3.4mm	4.4mm	**F8934**	**F8934B**	–	–

* Stainless steel versions are recommended for users wishing to braze a tube to an adaptor, although they can be crimped in place with a suitable crimp tool - see page 30

Internal Compression Tube Adaptor



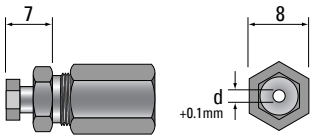


Application
This adaptor compresses onto a mineral insulated cable or metal tube so it may then be attached to a miniature connector.

For use with 220ºC and 350ºC versions.
Not suitable for Ceramic connectors.

Construction
All Stainless Steel parts.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.

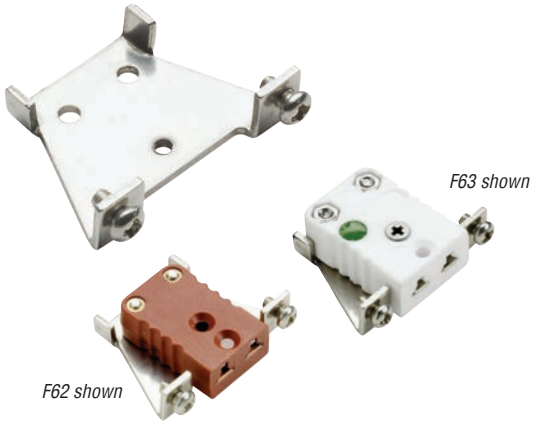


To suit tube diameter 'd'	Part codes for use with **220ºC** and **350ºC** rated connectors: ***F11, F13, F16, F20, F22, F25, F30, F31, F32, F37, F91*** and ***F92***
1.0mm	**F7110**
1.5mm	**F7115**
1.6mm (1/16")	**F7116**
3.0mm	**F7130**
3.2mm (1/8")	**F7132**

All dimensions are in mm

Accessories for Miniature Connectors

Panel Bracket Adaptor

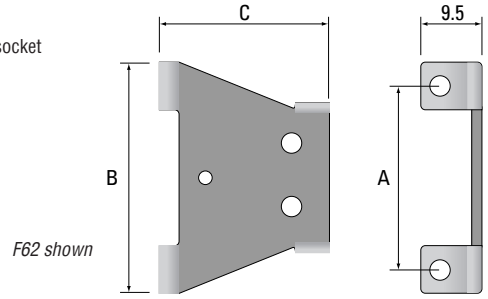


F63 shown

F62 shown

Application
This adaptor allows the user to use a normal socket and adapt it to fit into panels.

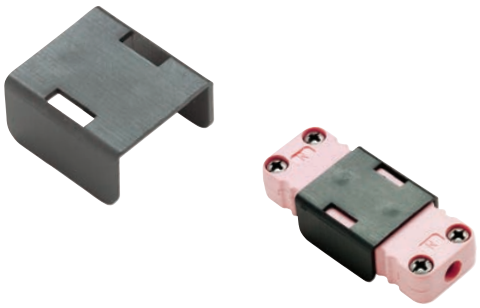
Construction
Stainless Steel bracket and screws.



F62 shown

Part code for use with connectors: ***F20*** *and* ***F22*** (A=22mm, B=27mm and C=23mm)	Part code for use with **ceramic** connector ***F200*** *only* (A=28mm, B=34mm and C=25mm)
F62	**F63**

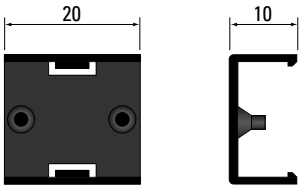
Plastic Locking Clip



Application
For extra protection to prevent accidental disconnection of a miniature plug and socket. Can be easily placed over a closed pair of connectors by hand (does not require special tools).

Construction
ABS.

Temperature Rating
110°C.



Part code for use with connectors: ***F11*** *and* ***F20***
F69

Protection Boots

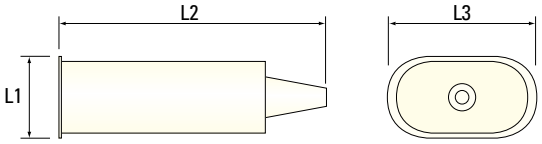


F68 shown with connector in position

Application
When using two of these protection boots, the user can prevent moisture or dirt from entering a connected pair of connectors. One boot is required per connector.

Construction
Silicone Rubber.

Temperature Rating
170°C.



Part code for use with **two pin** connectors: ***F11*** *and* ***F20*** (L1=12mm, L2=39mm and L3=22mm)	Part code for use with **three pin** connectors: ***F16*** *and* ***F25*** (L1=12mm, L2=39mm and L3=30mm)
F68	**F67**

For F91 and F92 duplex connectors an R68 boot can be used -see page 30

Panel Punch



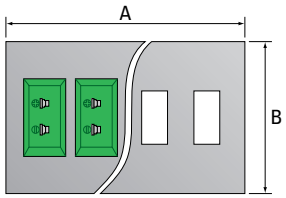
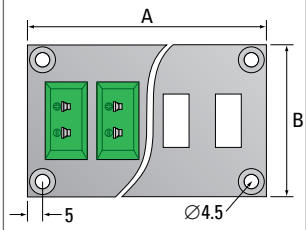
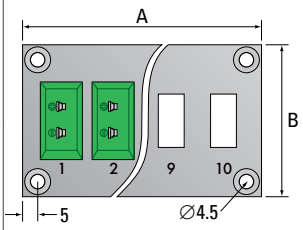
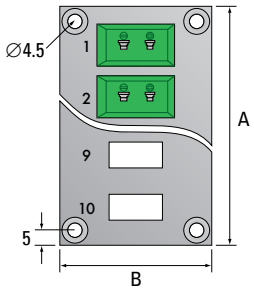
Assembled

Application
This simple device can be used to punch a hole in aluminium, mild steel and some plastics up to 3.5mm thick in order to mount F26, F26H and F32 connectors.

Part code for use with connectors: ***F26*** *and* ***F26H*** *- 17.5mm diameter cutout*	Part code for use with connector ***F32*** *only - 22.5mm diameter cutout*
F98	**F99**

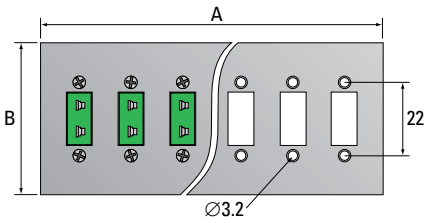
All dimensions are in mm

Anodised Aluminium and Stainless Steel Panels - For use with Flanged 2 Pin Mini Connectors

For use with connectors **F29**, **F29S** and **F34**		**FFP / FSP** Panel without panel mounting holes		**FFS / FSS** Panel with panel mounting holes		**FFH** Horizontal, numbered panel with panel mounting holes	**FFV** Vertical, numbered panel with panel mounting holes
 F29 F29S F34*		 Panel thickness = 2mm		 Panel thickness = 2mm		 Panel thickness = 2mm	 Panel thickness = 2mm
No. of Channels	Dimensions A x B in mm	**FFP Aluminium Panel**	**FSP Stainless Steel Panel**	**FFS Aluminium Panel**	**FSS Stainless Steel Panel**	**FFH Aluminium Panel**	**FFV Aluminium Panel**
1	23.5 x 47	**FFP01**	**FSP01**	**FFS01**	**FSS01**	**FFH01**	**FFV01**
2	40 x 47	**FFP02**	**FSP02**	**FFS02**	**FSS02**	**FFH02**	**FFV02**
4	72 x 47	**FFP04**	**FSP04**	**FFS04**	**FSS04**	**FFH04**	**FFV04**
6	104 x 47	**FFP06**	**FSP06**	**FFS06**	**FSS06**	**FFH06**	**FFV06**
8	136 x 47	**FFP08**	**FSP08**	**FFS08**	**FSS08**	**FFH08**	**FFV08**
10	168 x 47	**FFP10**	**FSP10**	**FFS10**	**FSS10**	**FFH10**	**FFV10**
12	200 x 47	**FFP12**	**FSP12**	**FFS12**	**FSS12**	**FFH12**	**FFV12**
16	136 x 78	**FFP16**	–	**FFS16**	–	**FFH16**	**FFV16**
20	168 x 78	**FFP20**	–	**FFS20**	–	**FFH20**	**FFV20**
24	200 x 78	**FFP24**	–	**FFS24**	–	**FFH24**	**FFV24**

These panels are suitable for use with the following connectors, which should be ordered separately:
F29 - Mini Flanged Panel Socket with Bracket, **F29S** - Mini Flanged Panel Socket with Spring Clip, **F34** - Mini High Temp Flanged Panel Socket with Bracket*
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (F34).

Anodised Aluminium and Stainless Steel Panels - For use with Lugged 2 Pin Mini Connectors

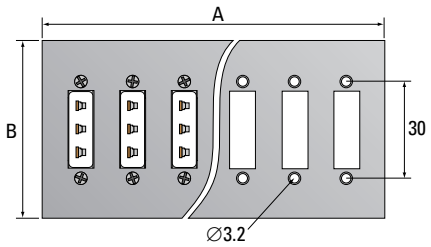
For use with connectors **F27**, **F30**, **F37** and **F22**	**FCP / FSC** Panel without panel mounting holes			
 F27  F30  F37  **F22*** (with **F62** adaptor)	 Panel thickness = 2mm			
No. of Channels	Dimensions A x B in mm	**FCP Aluminium Panel**	**FSC Stainless Steel Panel**	
1	23.5 x 47	**FCP01**	**FSC01**	
2	40 x 47	**FCP02**	**FSC02**	
4	72 x 47	**FCP04**	**FSC04**	
6	104 x 47	**FCP06**	**FSC06**	
8	136 x 47	**FCP08**	**FSC08**	
10	168 x 47	**FCP10**	**FSC10**	
12	200 x 47	**FCP12**	**FSC12**	

These panels are suitable for use with the following connectors, which should be ordered separately:
F27 - Mini Lugged Open Back Panel Socket, **F30** - Mini Lugged Closed Back Panel Socket,
F37 - Mini Lugged Closed Back Panel Plug and **F22** - Mini High Temp Socket with **F62** Adaptor*
These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (F22).

All dimensions are in mm

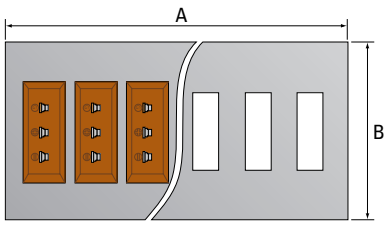
Miniature Connector Panels

Anodised Aluminium and Stainless Steel Panels - For use with 3 Pin Mini Panel Connectors

For use with connector **F31**	**FCT / FST** Panel without panel mounting holes
 F31	 Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**FCT Aluminium Panel**	**FST Stainless Steel Panel**
2	40 x 55	**FCT02**	**FST02**
4	72 x 55	**FCT04**	**FST04**
6	104 x 55	**FCT06**	**FST06**
12	200 x 55	**FCT12**	**FST12**

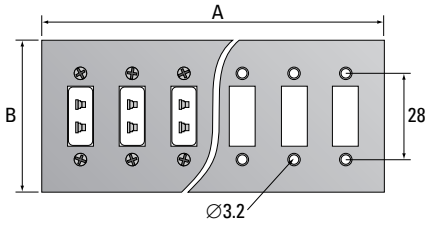
These panels are suitable for use with the following connectors, which should be ordered separately:
F31 - Mini Three Pin Lugged Panel Socket
These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.

For use with connector **F35**	**FFT / FSF** Panel without panel mounting holes
 F35*	 Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**FFT Aluminium Panel**	**FSF Stainless Steel Panel**
2	46 x 55	**FFT02**	**FSF02**
4	81 x 55	**FFT04**	**FSF04**
6	116 x 55	**FFT06**	**FSF06**
12	221 x 55	**FFT12**	**FSF12**

These panels are suitable for use with the following connectors, which should be ordered separately:
F35 - Mini High Temp Three Pin Flanged Panel Socket*
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (F35).

Stainless Steel Panels - For use with Mini Ceramic Connectors

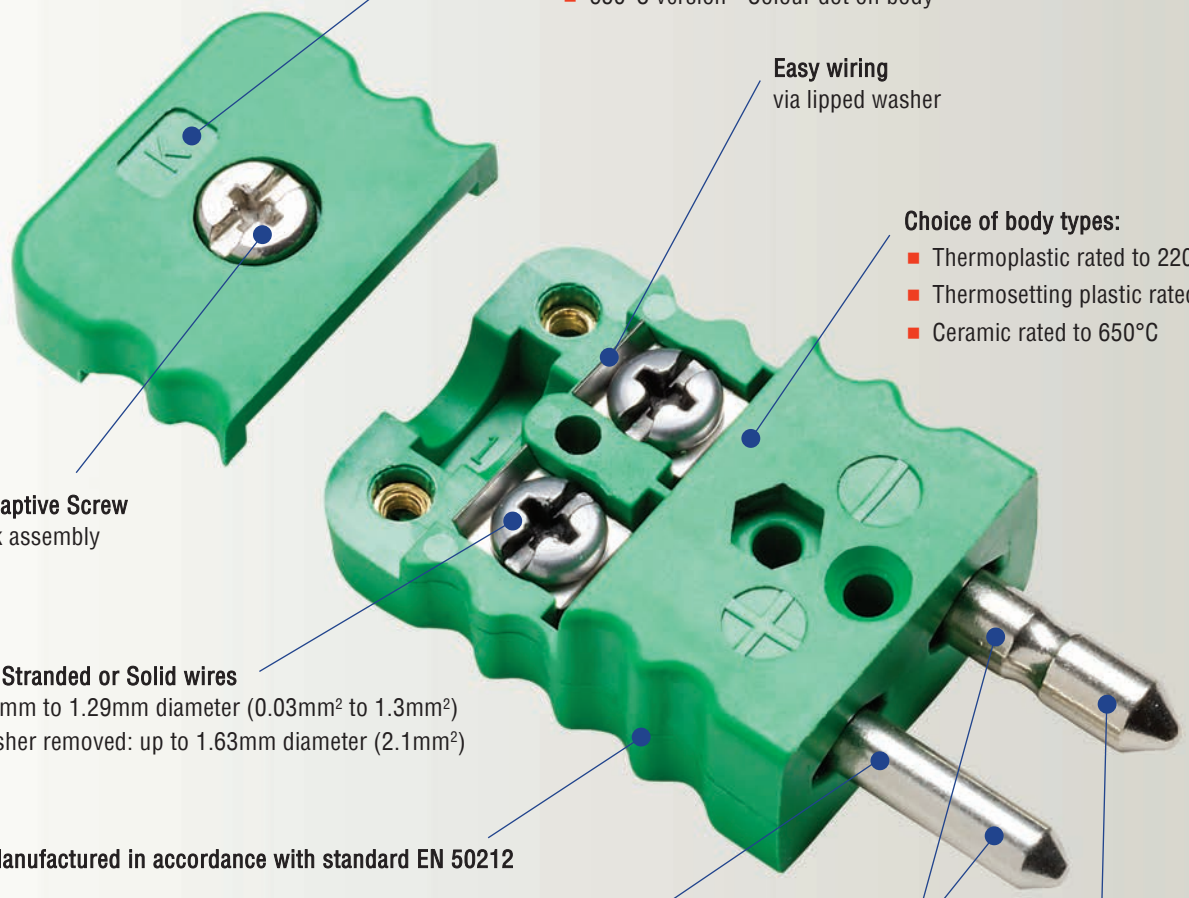
For use with connector **F200**	**FCC** Panel without panel mounting holes
 **F200** (with **F63** adaptor)	 Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**FCC Stainless Steel Panel**
2	44 x 47	**FCC02**
4	80 x 47	**FCC04**
6	116 x 47	**FCC06**
12	224 x 47	**FCC12**

These panels are suitable for use with the following connectors, which should be ordered separately:
F200 - Mini Ceramic Socket with **F63** Adaptor.
These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.

All dimensions are in mm

Standard Thermocouple & RTD Connectors - Features



Thermocouple & RTD Identification
- 220°C version - Body colour coded and thermocouple type indicated on body
- 350°C version - Thermocouple type indicated on body
- 650°C version - Colour dot on body

Easy wiring
via lipped washer

Choice of body types:
- Thermoplastic rated to 220°C
- Thermosetting plastic rated to 350°C
- Ceramic rated to 650°C

Single Captive Screw
for quick assembly

Accepts Stranded or Solid wires
from 0.2mm to 1.29mm diameter (0.03mm² to 1.3mm²)
With washer removed: up to 1.63mm diameter (2.1mm²)

Manufactured in accordance with standard EN 50212

High Purity Thermocouple Alloys
Used for male pin and female socket connections

Choice of Solid or Hollow Pins

Polarised Round Pins
with mechanism to prevent accidental output

Colours available: IEC, ANSI, DIN or JIS

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
IEC 60584.3							

Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
ANSI MC96.1							

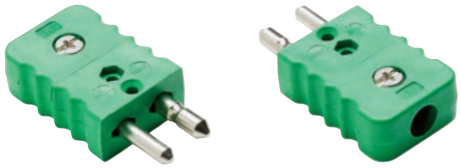
Calibration Type	K	T	U	J	L	R/S	E
Conductors	NiCr/ NiAl	Cu/ Con	Cu/ Con	Fe/ Con	Fe/ Con	Cu/ Alloy 11	NiCr/ Con
DIN 43714							

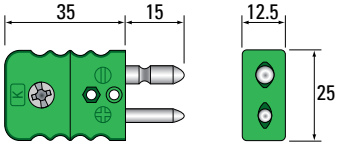
Calibration Type	K	T	J	N	R/S	E	Cu*
Conductors	NiCr/ NiAl	Cu/ Con	Fe/ Con	NiCrSi/ NiSi	Cu/ Alloy 11	NiCr/ Con	Cu
JIS C 1610							

* Not an internationally recognised standard

Standard Plugs rated to 220°C

R11 Standard Solid Pin Plug

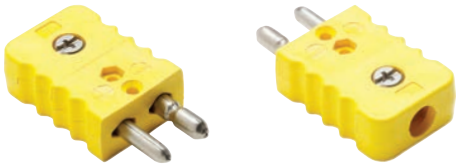


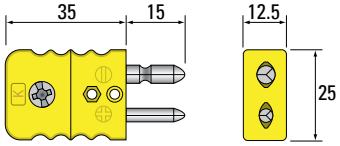


Type K IEC illustrated (R11K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R11K-I	K		R11K-A	K	
R11T-I	T		R11T-A	T	
R11J-I	J		R11J-A	J	
R11N-I	N		R11N-A	N	
R11RS-I	R/S		R11RS-A	R/S	
R11E-I	E		R11E-A	E	
R11B-I	B		R11B-A	B	
R11CU	Cu		R11CU	Cu	

R10 Standard Hollow Pin Plug

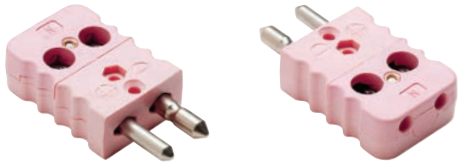


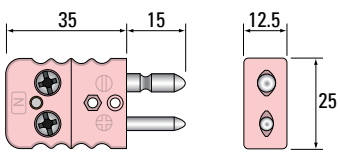


Type K ANSI illustrated (R10K-A)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R10K-I	K		R10K-A	K	
R10T-I	T		R10T-A	T	
R10J-I	J		R10J-A	J	
R10N-I	N		R10N-A	N	
R10RS-I	R/S		R10RS-A	R/S	
R10E-I	E		R10E-A	E	
R10B-I	B		R10B-A	B	
R10CU	Cu		R10CU	Cu	

R14 Standard Solid Pin Plug - Quick Wire

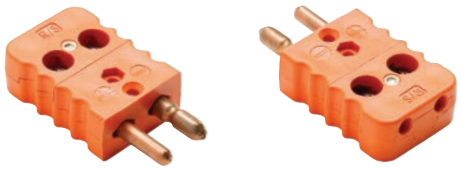


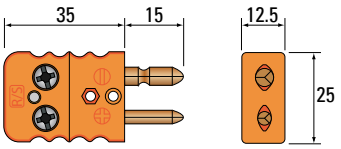


Type N IEC illustrated (R14N-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R14K-I	K		R14K-A	K	
R14T-I	T		R14T-A	T	
R14J-I	J		R14J-A	J	
R14N-I	N		R14N-A	N	
R14RS-I	R/S		R14RS-A	R/S	
R14E-I	E		R14E-A	E	
R14B-I	B		R14B-A	B	
R14CU	Cu		R14CU	Cu	

R15 Standard Hollow Pin Plug - Quick Wire

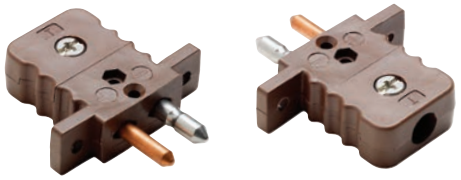


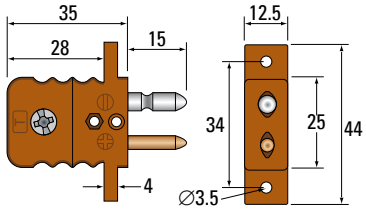


Type R/S IEC illustrated (R15RS-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R15K-I	K		R15K-A	K	
R15T-I	T		R15T-A	T	
R15J-I	J		R15J-A	J	
R15N-I	N		R15N-A	N	
R15RS-I	R/S		R15RS-A	R/S	
R15E-I	E		R15E-A	E	
R15B-I	B		R15B-A	B	
R15CU	Cu		R15CU	Cu	

R37 Standard Solid Pin Panel Plug - Lugged

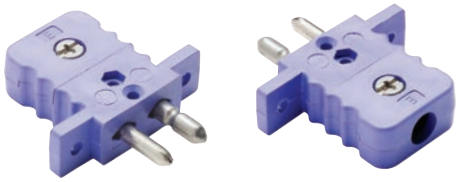


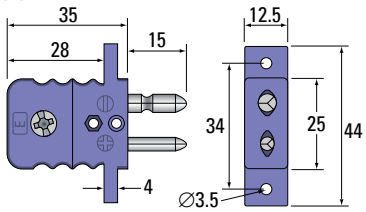


Type T IEC illustrated (R37T-I). Recommended cutout: 13mm x 26mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R37K-I	K		R37K-A	K	
R37T-I	T		R37T-A	T	
R37J-I	J		R37J-A	J	
R37N-I	N		R37N-A	N	
R37RS-I	R/S		R37RS-A	R/S	
R37E-I	E		R37E-A	E	
R37B-I	B		R37B-A	B	
R37CU	Cu		R37CU	Cu	

R36 Standard Hollow Pin Panel Plug - Lugged





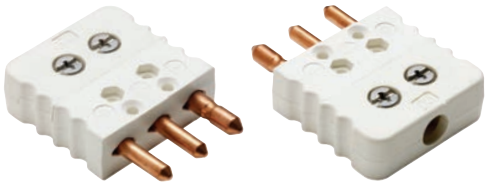
Type E IEC illustrated (R36E-I). Recommended cutout: 13mm x 26mm

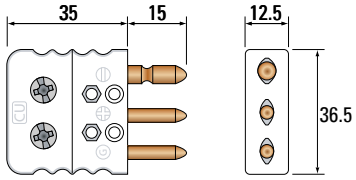
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R36K-I	K		R36K-A	K	
R36T-I	T		R36T-A	T	
R36J-I	J		R36J-A	J	
R36N-I	N		R36N-A	N	
R36RS-I	R/S		R36RS-A	R/S	
R36E-I	E		R36E-A	E	
R36B-I	B		R36B-A	B	
R36CU	Cu		R36CU	Cu	

All dimensions are in mm

Standard Plugs rated to 220°C

R16 Standard Solid Pin Plug - Three Pin

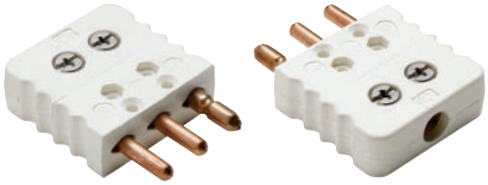


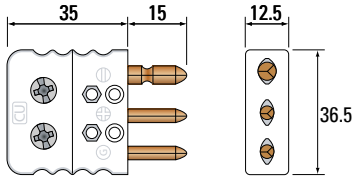


Type CU illustrated (R16CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R16K-I	K		R16K-A	K	
R16T-I	T		R16T-A	T	
R16J-I	J		R16J-A	J	
R16N-I	N		R16N-A	N	
R16RS-I	R/S		R16RS-A	R/S	
R16E-I	E		R16E-A	E	
R16B-I	B		R16B-A	B	
R16CU	Cu		R16CU	Cu	

R17 Standard Hollow Pin Plug - Three Pin

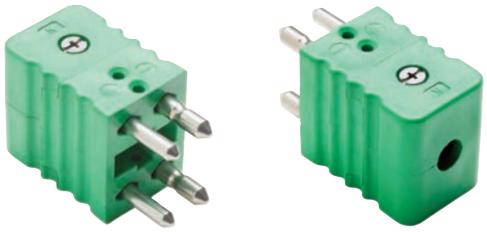


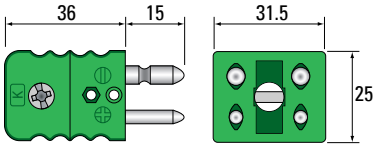


Type CU illustrated (R17CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R17K-I	K		R17K-A	K	
R17T-I	T		R17T-A	T	
R17J-I	J		R17J-A	J	
R17N-I	N		R17N-A	N	
R17RS-I	R/S		R17RS-A	R/S	
R17E-I	E		R17E-A	E	
R17B-I	B		R17B-A	B	
R17CU	Cu		R17CU	Cu	

R91 Standard Solid Pin Plug - Duplex

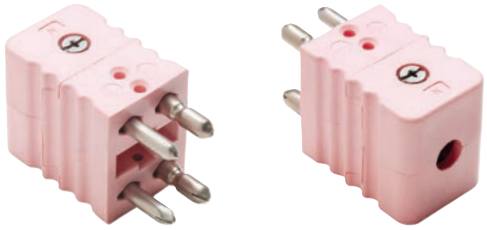


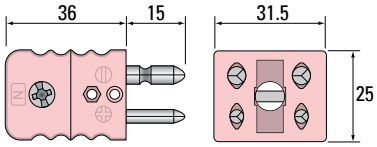


Type K IEC illustrated (R91K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R91K-I	K		R91K-A	K	
R91T-I	T		R91T-A	T	
R91J-I	J		R91J-A	J	
R91N-I	N		R91N-A	N	
R91RS-I	R/S		R91RS-A	R/S	
R91E-I	E		R91E-A	E	
R91B-I	B		R91B-A	B	
R91CU	Cu		R91CU	Cu	

R90 Standard Hollow Pin Plug - Duplex





Type N IEC illustrated (R90N-I)

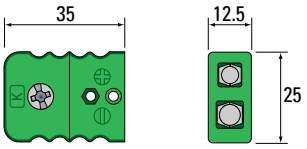
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R90K-I	K		R90K-A	K	
R90T-I	T		R90T-A	T	
R90J-I	J		R90J-A	J	
R90N-I	N		R90N-A	N	
R90RS-I	R/S		R90RS-A	R/S	
R90E-I	E		R90E-A	E	
R90B-I	B		R90B-A	B	
R90CU	Cu		R90CU	Cu	

All dimensions are in mm

Standard Sockets rated to 220°C

R20 Standard Socket



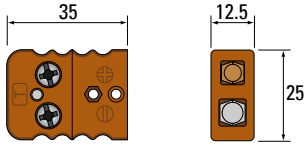


Type K IEC illustrated (R20K-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R20K-I	K		R20K-A	K	
R20T-I	T		R20T-A	T	
R20J-I	J		R20J-A	J	
R20N-I	N		R20N-A	N	
R20RS-I	R/S		R20RS-A	R/S	
R20E-I	E		R20E-A	E	
R20B-I	B		R20B-A	B	
R20CU	Cu		R20CU	Cu	

R24 Standard Socket - Quick Wire



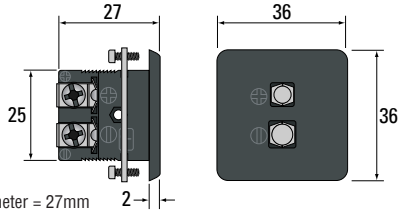


Type T IEC illustrated (R24T-I)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R24K-I	K		R24K-A	K	
R24T-I	T		R24T-A	T	
R24J-I	J		R24J-A	J	
R24N-I	N		R24N-A	N	
R24RS-I	R/S		R24RS-A	R/S	
R24E-I	E		R24E-A	E	
R24B-I	B		R24B-A	B	
R24CU	Cu		R24CU	Cu	

R26 Standard Panel Socket - Square Flanged with Bracket





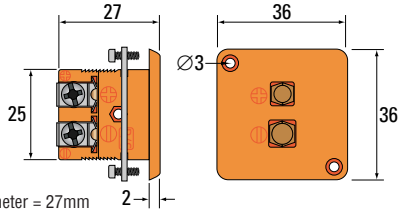
Type J IEC illustrated (R26J-I)

Cutout diameter = 27mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R26K-I	K		R26K-A	K	
R26T-I	T		R26T-A	T	
R26J-I	J		R26J-A	J	
R26N-I	N		R26N-A	N	
R26RS-I	R/S		R26RS-A	R/S	
R26E-I	E		R26E-A	E	
R26B-I	B		R26B-A	B	
R26CU	Cu		R26CU	Cu	

R26H Standard Panel Socket - Square Flanged with Holes & Bracket





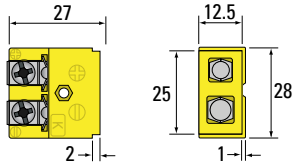
Type R/S IEC illustrated (R26HRS-I)

Cutout diameter = 27mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R26HK-I	K		R26HK-A	K	
R26HT-I	T		R26HT-A	T	
R26HJ-I	J		R26HJ-A	J	
R26HN-I	N		R26HN-A	N	
R26HRS-I	R/S		R26HRS-A	R/S	
R26HE-I	E		R26HE-A	E	
R26HB-I	B		R26HB-A	B	
R26HCU	Cu		R26HCU	Cu	

R28 Standard Panel Socket - for use with Mounting Kit



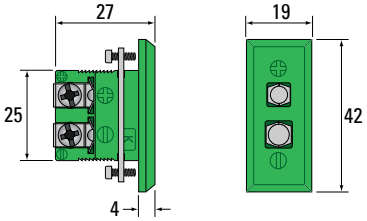


Type K ANSI illustrated (R28K-A) - see page 32 for mounting kit. Recommended cutout: 13mm x 25.8mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R28K-I	K		R28K-A	K	
R28T-I	T		R28T-A	T	
R28J-I	J		R28J-A	J	
R28N-I	N		R28N-A	N	
R28RS-I	R/S		R28RS-A	R/S	
R28E-I	E		R28E-A	E	
R28B-I	B		R28B-A	B	
R28CU	Cu		R28CU	Cu	

R29 Standard Panel Socket - Rectangle Flanged with Bracket



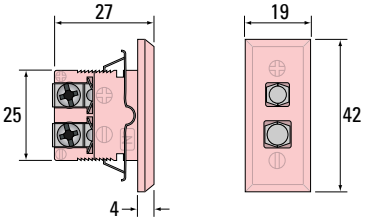


Type K IEC illustrated (R29K-I). Recommended cutout: 13mm x 26mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R29K-I	K		R29K-A	K	
R29T-I	T		R29T-A	T	
R29J-I	J		R29J-A	J	
R29N-I	N		R29N-A	N	
R29RS-I	R/S		R29RS-A	R/S	
R29E-I	E		R29E-A	E	
R29B-I	B		R29B-A	B	
R29CU	Cu		R29CU	Cu	

R29S Standard Panel Socket - Rectangle Flanged with Spring Clip





Type N IEC illustrated (R29SN-I). Recommended cutout: 13mm x 26mm

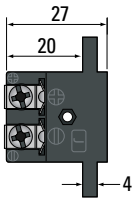
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R29SK-I	K		R29SK-A	K	
R29ST-I	T		R29ST-A	T	
R29SJ-I	J		R29SJ-A	J	
R29SN-I	N		R29SN-A	N	
R29SRS-I	R/S		R29SRS-A	R/S	
R29SE-I	E		R29SE-A	E	
R29SB-I	B		R29SB-A	B	
R29SCU	Cu		R29SCU	Cu	

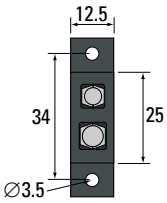
All dimensions are in mm

Standard Sockets rated to 220°C

R27 Standard Panel Socket - Lugged - Open Back





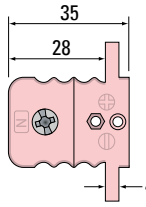


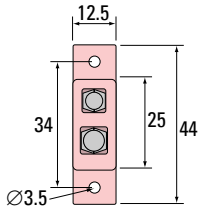
Type J IEC illustrated (R27J-I). Recommended cutout: 13mm x 26mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R27K-I	K		R27K-A	K	
R27T-I	T		R27T-A	T	
R27J-I	J		R27J-A	J	
R27N-I	N		R27N-A	N	
R27RS-I	R/S		R27RS-A	R/S	
R27E-I	E		R27E-A	E	
R27B-I	B		R27B-A	B	
R27CU	Cu		R27CU	Cu	

R30 Standard Panel Socket - Lugged - Closed Back





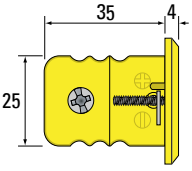


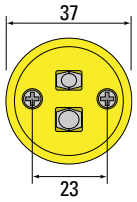
Type N IEC illustrated (R30N-I). Recommended cutout: 13mm x 26mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R30K-I	K		R30K-A	K	
R30T-I	T		R30T-A	T	
R30J-I	J		R30J-A	J	
R30N-I	N		R30N-A	N	
R30RS-I	R/S		R30RS-A	R/S	
R30E-I	E		R30E-A	E	
R30B-I	B		R30B-A	B	
R30CU	Cu		R30CU	Cu	

R32 Standard Panel Socket - Round Flanged





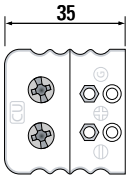


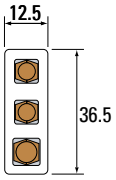
Type K ANSI illustrated (R32K-A). Cutout diameter = 28.3mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R32K-I	K		R32K-A	K	
R32T-I	T		R32T-A	T	
R32J-I	J		R32J-A	J	
R32N-I	N		R32N-A	N	
R32RS-I	R/S		R32RS-A	R/S	
R32E-I	E		R32E-A	E	
R32B-I	B		R32B-A	B	
R32CU	Cu		R32CU	Cu	

R25 Standard Socket - Three Pin





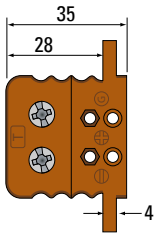


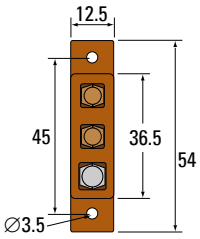
Type CU illustrated (R25CU)

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R25K-I	K		R25K-A	K	
R25T-I	T		R25T-A	T	
R25J-I	J		R25J-A	J	
R25N-I	N		R25N-A	N	
R25RS-I	R/S		R25RS-A	R/S	
R25E-I	E		R25E-A	E	
R25B-I	B		R25B-A	B	
R25CU	Cu		R25CU	Cu	

R31 Standard Panel Socket - Lugged - Three Pin





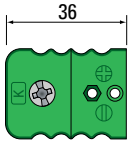


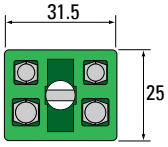
Type T IEC illustrated (R31T-I). Recommended cutout: 13.5mm x 37mm

IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R31K-I	K		R31K-A	K	
R31T-I	T		R31T-A	T	
R31J-I	J		R31J-A	J	
R31N-I	N		R31N-A	N	
R31RS-I	R/S		R31RS-A	R/S	
R31E-I	E		R31E-A	E	
R31B-I	B		R31B-A	B	
R31CU	Cu		R31CU	Cu	

R92 Standard Socket - Duplex







Type K IEC illustrated (R92K-I)

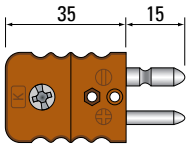
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R92K-I	K		R92K-A	K	
R92T-I	T		R92T-A	T	
R92J-I	J		R92J-A	J	
R92N-I	N		R92N-A	N	
R92RS-I	R/S		R92RS-A	R/S	
R92E-I	E		R92E-A	E	
R92B-I	B		R92B-A	B	
R92CU	Cu		R92CU	Cu	

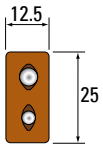
All dimensions are in mm

High Temp Standard Plugs rated to 350°C

R13 Standard High Temperature Solid Pin Plug





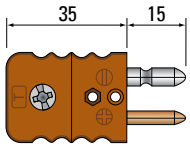


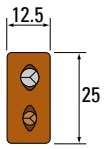
Type K illustrated (R13K)

Part No.	Type	Colour
R13K	K	
R13T	T	
R13J	J	
R13N	N	
R13RS	R/S	
R13E	E	
R13B	B	
R13CU	Cu	

R12 Standard High Temperature Hollow Pin Plug





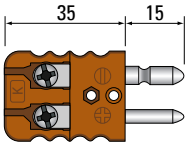


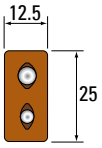
Type T illustrated (R12T)

Part No.	Type	Colour
R12K	K	
R12T	T	
R12J	J	
R12N	N	
R12RS	R/S	
R12E	E	
R12B	B	
R12CU	Cu	

R08 Standard High Temp Solid Pin Plug - Quick Wire





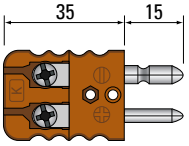


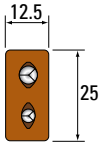
Type K illustrated (R08K)

Part No.	Type	Colour
R08K	K	
R08T	T	
R08J	J	
R08N	N	
R08RS	R/S	
R08E	E	
R08B	B	
R08CU	Cu	

R07 Standard High Temp Hollow Pin Plug - Quick Wire





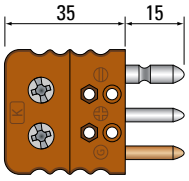


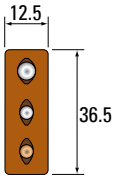
Type K illustrated (R07K)

Part No.	Type	Colour
R07K	K	
R07T	T	
R07J	J	
R07N	N	
R07RS	R/S	
R07E	E	
R07B	B	
R07CU	Cu	

R18 Standard High Temp Solid Pin Plug - Three Pin





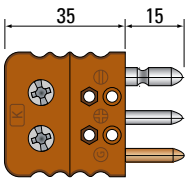


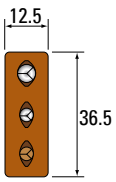
Type K illustrated (R18K)

Part No.	Type	Colour
R18K	K	
R18T	T	
R18J	J	
R18N	N	
R18RS	R/S	
R18E	E	
R18B	B	
R18CU	Cu	

R19 Standard High Temp Hollow Pin Plug - Three Pin







Type K illustrated (R19K)

Part No.	Type	Colour
R19K	K	
R19T	T	
R19J	J	
R19N	N	
R19RS	R/S	
R19E	E	
R19B	B	
R19CU	Cu	

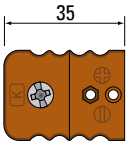
Note: All high temperature connectors are coloured brown. The thermocouple type is embossed on the body.

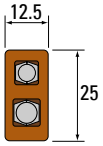
All dimensions are in mm

High Temp Standard Sockets rated to 350°C

R22 Standard High Temperature Socket





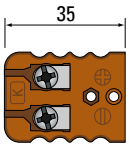


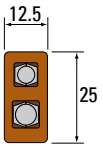
Type K illustrated (R22K)

Part No.	Type	Colour
R22K	K	
R22T	T	
R22J	J	
R22N	N	
R22RS	R/S	
R22E	E	
R22B	B	
R22CU	Cu	

R09 Standard High Temperature Socket - Quick Wire





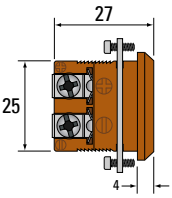


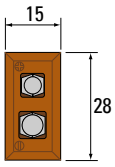
Type K illustrated (R09K)

Part No.	Type	Colour
R09K	K	
R09T	T	
R09J	J	
R09N	N	
R09RS	R/S	
R09E	E	
R09B	B	
R09CU	Cu	

R34 Standard High Temp Panel Socket - Rectangle Flanged





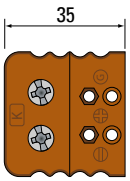


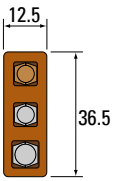
Recommended cutout: 13mm x 26mm. Type K illustrated (R34K)

Part No.	Type	Colour
R34K	K	
R34T	T	
R34J	J	
R34N	N	
R34RS	R/S	
R34E	E	
R34B	B	
R34CU	Cu	

R33 Standard High Temperature Socket - Three Pin





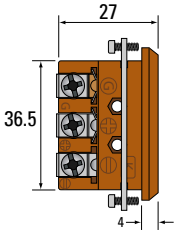


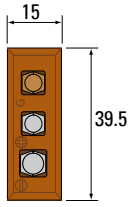
Type K illustrated (R33K)

Part No.	Type	Colour
R33K	K	
R33T	T	
R33J	J	
R33N	N	
R33RS	R/S	
R33E	E	
R33B	B	
R33CU	Cu	

R35 Standard High Temp Panel Socket - Rectangle Flanged - Three Pin







Type K illustrated (R35). Recommended cutout: 13mm x 37mm

Part No.	Type	Colour
R35K	K	
R35T	T	
R35J	J	
R35N	N	
R35RS	R/S	
R35E	E	
R35B	B	
R35CU	Cu	

Note: All high temperature connectors are coloured brown. The thermocouple type is embossed on the body.

All dimensions are in mm

Standard Ceramic Plugs rated to 650°C

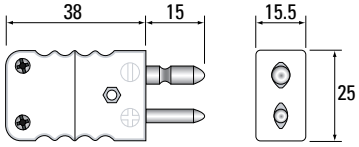
R100 Standard Ceramic Solid Pin Plug



Type K IEC illustrated (R100K-I)



under-side shown to illustrate colour markings



IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R100K-I	K		R100K-A	K	
R100T-I	T		R100T-A	T	
R100J-I	J		R100J-A	J	
R100N-I	N		R100N-A	N	
R100RS-I	R/S		R100RS-A	R/S	
R100E-I	E		R100E-A	E	
R100B-I	B		R100B-A	B	
R100CU	Cu		R100CU	Cu	

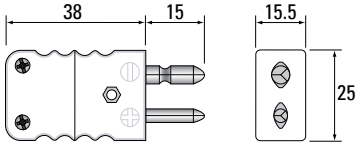
R120 Standard Ceramic Hollow Pin Plug



Type K ANSI illustrated (R120K-A)



under-side shown to illustrate colour markings



IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R120K-I	K		R120K-A	K	
R120T-I	T		R120T-A	T	
R120J-I	J		R120J-A	J	
R120N-I	N		R120N-A	N	
R120RS-I	R/S		R120RS-A	R/S	
R120E-I	E		R120E-A	E	
R120B-I	B		R120B-A	B	
R120CU	Cu		R120CU	Cu	

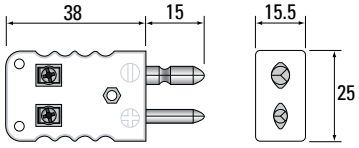
R130 Standard Ceramic Solid Pin Plug - Quick Wire



Type K IEC illustrated (R130K-I)



under-side shown to illustrate colour markings



IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R130K-I	K		R130K-A	K	
R130T-I	T		R130T-A	T	
R130J-I	J		R130J-A	J	
R130N-I	N		R130N-A	N	
R130RS-I	R/S		R130RS-A	R/S	
R130E-I	E		R130E-A	E	
R130B-I	B		R130B-A	B	
R130CU	Cu		R130CU	Cu	

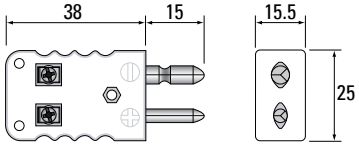
R140 Standard Ceramic Hollow Pin Plug - Quick Wire



Type K ANSI illustrated (R140K-A)



under-side shown to illustrate colour markings



IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R140K-I	K		R140K-A	K	
R140T-I	T		R140T-A	T	
R140J-I	J		R140J-A	J	
R140N-I	N		R140N-A	N	
R140RS-I	R/S		R140RS-A	R/S	
R140E-I	E		R140E-A	E	
R140B-I	B		R140B-A	B	
R140CU	Cu		R140CU	Cu	

Note: All ceramic connectors are coloured white. The thermocouple type is marked with a coloured dot on the body. For vacuum applications, connectors can be supplied without a coloured dot.

Standard Ceramic Sockets rated to 650°C

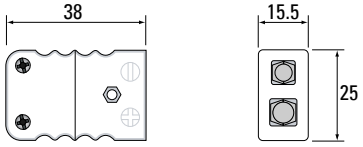
R200 Standard Ceramic Socket



Type K IEC illustrated (R200K-I)



under-side shown to illustrate colour markings



IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R200K-I	K		R200K-A	K	
R200T-I	T		R200T-A	T	
R200J-I	J		R200J-A	J	
R200N-I	N		R200N-A	N	
R200RS-I	R/S		R200RS-A	R/S	
R200E-I	E		R200E-A	E	
R200B-I	B		R200B-A	B	
R200CU	Cu		R200CU	Cu	

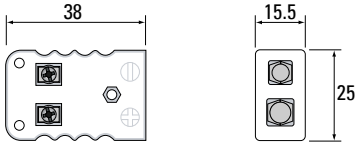
R240 Standard Ceramic Socket - Quick Wire



Type K IEC illustrated (R240K-I)



under-side shown to illustrate colour markings



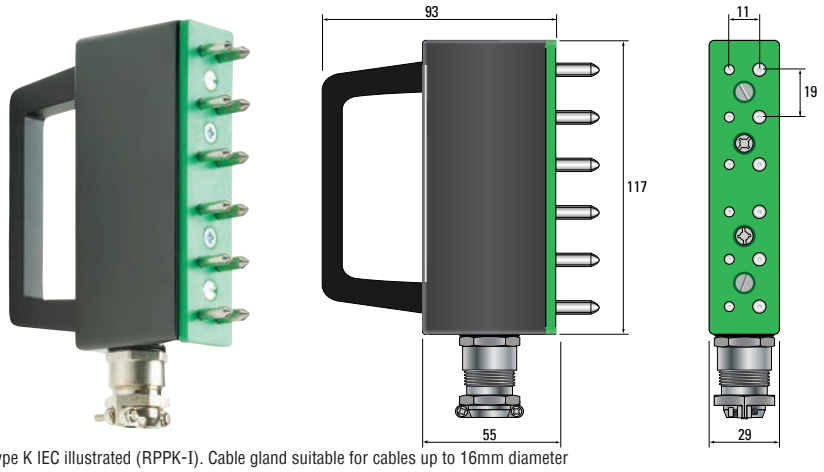
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
R240K-I	K		R240K-A	K	
R240T-I	T		R240T-A	T	
R240J-I	J		R240J-A	J	
R240N-I	N		R240N-A	N	
R240RS-I	R/S		R240RS-A	R/S	
R240E-I	E		R240E-A	E	
R240B-I	B		R240B-A	B	
R240CU	Cu		R240CU	Cu	

Note: All ceramic connectors are coloured white. The thermocouple type is marked with a coloured dot on the body. For vacuum applications, connectors can be supplied without a coloured dot.

All dimensions are in mm

Heavy Duty Multi Connectors rated to 220°C

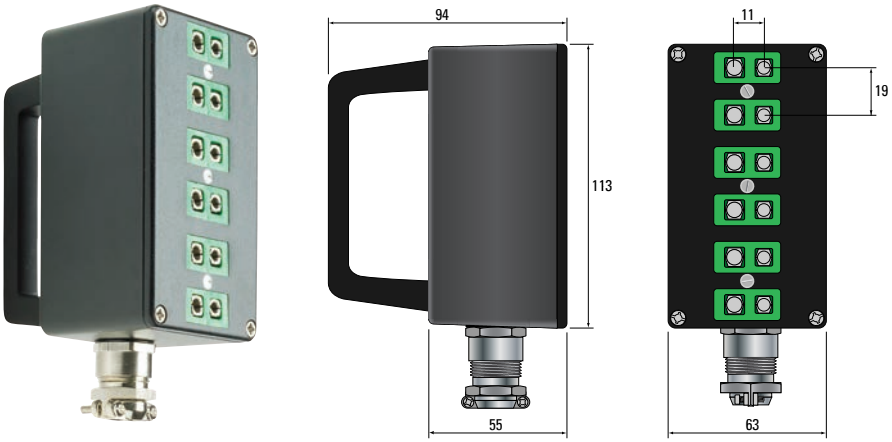
RPP Standard 6 way Heavy Duty Plug



Type K IEC illustrated (RPPK-I). Cable gland suitable for cables up to 16mm diameter

IEC Colours Part No.	Type	Colour	ANSI Colours Part No.	Type	Colour
RPPK-I	K		RPPK-A	K	
RPPT-I	T		RPPT-A	T	
RPPJ-I	J		RPPJ-A	J	
RPPN-I	N		RPPN-A	N	
RPPRS-I	R/S		RPPRS-A	R/S	
RPPE-I	E		RPPE-A	E	
RPPB-I	B		RPPB-A	B	
RPPCU	Cu		RPPCU	Cu	

RPS Standard 6 way Heavy Duty Socket



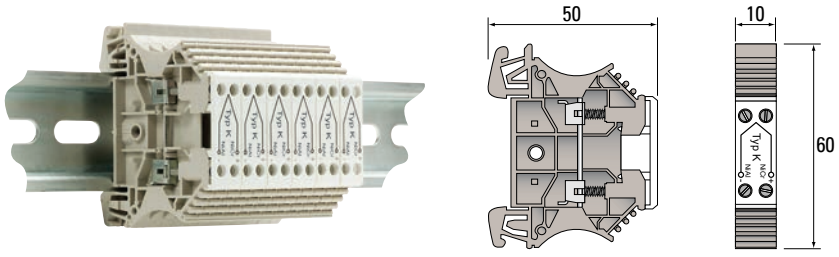
Type K IEC illustrated (RPSK-I). Cable gland suitable for cables up to 16mm diameter

IEC Colours Part No.	Type	Colour	ANSI Colours Part No.	Type	Colour
RPSK-I	K		RPSK-A	K	
RPST-I	T		RPST-A	T	
RPSJ-I	J		RPSJ-A	J	
RPSN-I	N		RPSN-A	N	
RPSRS-I	R/S		RPSRS-A	R/S	
RPSE-I	E		RPSE-A	E	
RPSB-I	B		RPSB-A	B	
RPSCU	Cu		RPSCU	Cu	

Note: The RPP*-* plug is compatible with the RPS*-* socket or the RWS06 panel

DIN Rail Mounted Terminal Blocks

DTB DIN Rail Mounted Thermocouple Terminal Blocks



A group of six Type K (DTBK) terminal blocks is illustrated

These Thermocouple Terminal Blocks are designed to allow users to connect thermocouple wires or cables on a DIN rail mounting system. Input and output terminals are situated at the top and the bottom of the block and are linked using the appropriate thermocouple material.

All blocks are suitable for mounting onto TS35 DIN Rail (35mm x 7.5mm). DIN Rail is available in lengths of 200, 400 and 500mm but can be cut by the user to the required length.

One end plate (DTBEND) is recommended per group of terminal blocks.

Part No.	Type	Colour
DTBK	K	
DTBT	T	
DTBJ	J	
DTBN	N	
DTBRS	R/S	
DTBE	E	
DTBB	B	
DTBEND	End Plate	

TS 35 DIN Rail for DIN Rail Mounted Connectors	
DIN Rail Length	Part No. for DIN Rail
200mm	DR200
400mm	DR400
500mm	DR500

All dimensions are in mm

Barrier Terminal Blocks rated to 220ºC

BTS Interconnecting Barrier Terminal Blocks

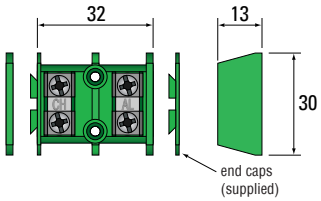


Type K IEC illustrated (BTSK-I)
Terminal lugs and end caps are included



Shown as three units connected

Application
These interconnecting Barrier Terminal Blocks are suitable for use with all thermocouple types as well as Copper for other sensors such as RTD's. Each single block comes complete with terminal lugs and end caps. All are colour coded as shown for easy identification and are temperature rated to 220ºC.



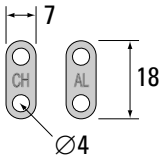
IEC Colours			ANSI Colours		
Part No.	Type	Colour	Part No.	Type	Colour
BTSK-I	K		BTSK-A	K	
BTST-I	T		BTST-A	T	
BTSJ-I	J		BTSJ-A	J	
BTSN-I	N		BTSN-A	N	
BTSRS-I	R/S		BTSRS-A	R/S	
BTSE-I	E		BTSE-A	E	
BTSB-I	B		BTSB-A	B	
BTSCU	Cu		BTSCU	Cu	

TL Spare Terminal Lugs



Application
Whilst BTS terminal blocks are supplied complete with terminal lugs, it is possible to purchase them separately as spares or for a new application.

Construction
All lugs are made from the relevant thermocouple material. Terminal Lugs are spares for the Barrier Terminal Strip itself.



Thermocouple Material	Identification Marking	Part No. for Spare Terminal Lugs
Chromel (K+, E+)	CH	TLCH
Alumel (K–)	AL	TLAL
Iron (J+)	IR	TLIR
Constantan (T–, J–, E–)	CO	TLCO
Copper (T+, RCB+, CU+, CU–)	CP	TLCU
Cupronic (RCB–)	11	TLCUPR
Nicrosil (N+)	N+	TLNIC
Nisil (N–)	N-	TLNIS

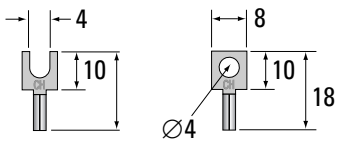
Thermocouple & RTD Crimp Lugs

SL & RL Spade and Ring Crimp Lugs



Application
These thermocouple & RTD spade and ring lugs are ideal for attaching to the end of thermocouple (or RTD) leads or alternatively thermocouple extension cable. Using them eliminates any potential problems that may occur by introducing other alloys into the thermocouple circuit which could affect the accuracy of the thermocouple. Both designs of lug will accommodate all wire sizes up to 1.00mm (18 AWG).

Construction
All lugs are made from the relevant thermocouple material. Ring and Spade lugs are crimped to cables.

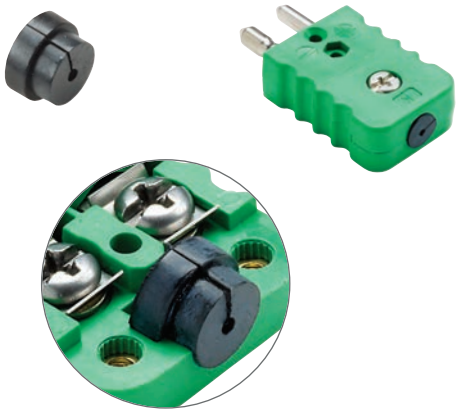


Thermocouple Material	Identification Marking	Part No. for Spade and Ring Lugs	
		Spade Lugs	Ring Lugs
Chromel (K+, E+)	CH	SLCH	RLCH
Alumel (K–)	AL	SLAL	RLAL
Iron (J+)	IR	SLIR	RLIR
Constantan (T–, J–, E–)	CO	SLCO	RLCO
Copper (T+, RCB+, CU+, CU–)	CP	SLCU	RLCU
Cupronic (RCB–)	11	SLCUPR	RLCUPR
Nicrosil (N+)	N+	SLNIC	RLNIC
Nisil (N–)	N-	SLNIS	RLNIS

All dimensions are in mm

Accessories for Standard Connectors

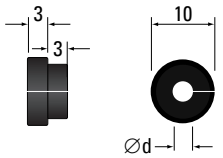
Cable Grommet



Application
The cable grommet is fitted into the exit hole of the connector which prevents dirt or moisture entering the connector when used with wires or cable.

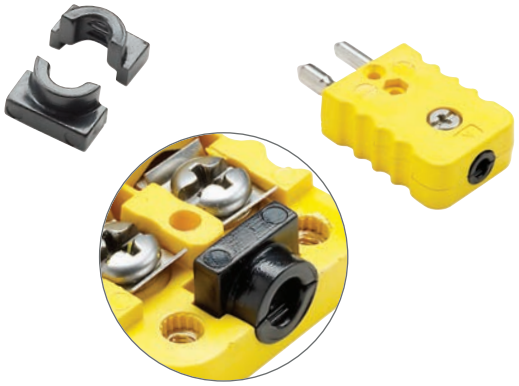
Construction
Silicone rubber ring with collar, slit for easy use. Compresses on the wire or cable when connector is fully assembled.

Temperature Rating
200°C.



Diameter 'd'	Part codes for use with connectors: ***R10, R11, R16, R17, R20, R25, R30, R31, R32, R36, R37, R90, R91*** *and* ***R92***. *Can also be used with* ***R12, R13, R18, R19, R22*** *and* ***R33*** *but only in conditions below 200°C*
1.5mm	**R4115**
2.5mm	**R4125**
4.5mm	**R4145**

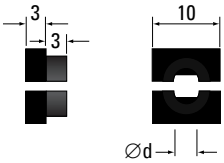
Cable and Wire Insert



Application
Fitted inside the connector, the insert allows the user to hold wires and cables in place, providing a strong grip without the insert protruding outside of the connector.

Construction
Polypropylene for either round or oval cables.

Temperature Rating
110°C.



Approximate wire diameter 'd'	Round or Oval	Part codes for use with connectors: ***R10, R11, R12, R16, R17, R20, R25, R30, R31, R32, R33, R36*** *and* ***R37*** *in applications up to 160°C*
3.5mm	Round	**R5035**
2.0 x 1.5mm	Oval	**R502015**

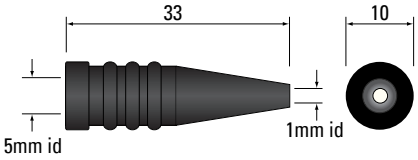
Cable Bending Protection



Application
Provides bending protection for small wires and cables when used with standard connectors. Reduces potential mechanical damage to the cable. The conical end can be cut back to suit the cable.

Construction
Silicone Rubber tapered insert.

Temperature Rating
200°C.



Part code for use with connectors: ***R10, R11, R16, R17, R20, R25, R30, R31, R32, R36, R37, R90, R91*** *and* ***R92***. *Can also be used with* ***R12, R13, R18, R19, R22*** *and* ***R33*** *but only in conditions below 200°C*
R43

Cable Clamp



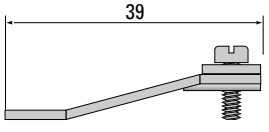
R40 shown

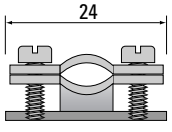


Application
Allows the user to clamp wires and cables in place.

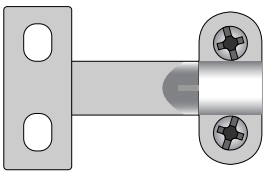
Construction
Stainless steel including stainless steel screws.

Temperature Rating
800°C (only limited by the temperature rating of the cable or connector it is attached to).





R40 shown



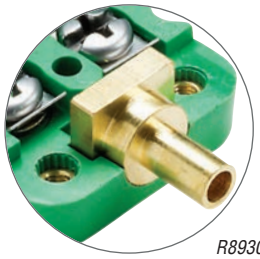
Part code for use with most **220°C** & **350°C** rated standard connectors *(**R10, R11, R12, R13, R16, R17, R18, R19, R20, R22, R25, R30, R31, R32, R33, R36*** *and* ***R37**)*	Part code for use with duplex **220°C** rated standard connectors *(**R90, R91*** *and* ***R92**)*	Part code for use with **650°C** rated **ceramic** connectors: *(**R100, R120*** *and* ***R200**)*
R40	**R46**	**R45**

All dimensions are in mm

Accessories for Standard Connectors

Internal Crimp/Braze Adaptor





R8930B shown in connector



R8830 shown in connector

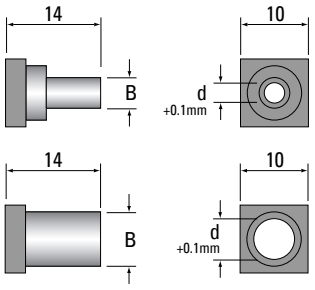
Application
This adaptor can be crimped onto a mineral insulated cable or metal tube so it may then be attached to a standard connector. A crimp tool is available - see page 30.

Stainless steel adaptors may also be brazed. Brass adaptors can also be used to crimp some soft materials such as PVC or PFA wires and cables.

Construction
For 220°C and 350°C range connectors: Nickel Plated Brass, Brass or Stainless Steel.

For Ceramic connectors: Stainless Steel only.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.



to suit tube diameter 'd'	Crimp diameter 'B'	Part codes for use with **220ºC** and **350ºC** rated connectors: ***R10, R11, R12, R13, R16, R17, R18, R19, R20, R22, R25, R30, R31, R32, R33, R36, R37, R90, R91*** *and* ***R92***			Part codes for use with **650ºC** rated connectors: ***R100, R120*** *and* ***R200***
		Nickel Plated Brass	Plain Brass	Stainless Steel*	Stainless Steel*
0.5mm	2.4mm	R8905	R8905B	R8805	R8005
0.8mm	2.4mm	–	R8908B	–	–
1.0mm	2.4mm	R8910	R8910B	R8810	R8010
1.5mm	3.2mm	R8915	R8915B	R8815	R8015
1.6mm (1/16")	3.2mm	R8916	R8916B	R8816	R8016
2.0mm	3.2mm	R8920	R8920B	R8820	R8020
2.3mm	3.2mm	R8923	–	–	–
3.0mm	4.4mm	R8930	R8930B	R8830	R8030
3.2mm (1/8")	4.4mm	R8932	R8932B	R8832	R8032
4.0mm	6.0mm	R8940	–	–	–
4.5mm	6.0mm	R8945	R8945B	R8845	R8045
4.8mm (3/16")	6.0mm	R8948	R8948B	R8848	R8048
5.5mm	6.5mm	R8955	–	–	–
6.0mm	8.0mm	R8960	R8960B	R8860	R8060
6.4mm (1/4")	8.0mm	R8964	R8964B	R8864	R8064

* Stainless steel versions are recommended for users wishing to braze a tube to an adaptor, although they can be crimped in place with a suitable crimp tool - see page 30

Internal Compression Tube Adaptor

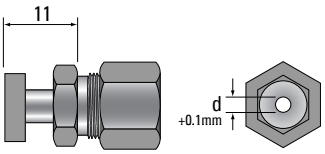




Application
This adaptor compresses onto a mineral insulated cable or metal tube so it may then be attached to a standard connector.

Construction
All Stainless Steel parts.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.



To suit tube diameter 'd'	Part codes for use with **220ºC**, **350ºC** and **650ºC** connectors: ***R10, R11, R12, R13, R16, R17, R18, R19, R20, R22, R25, R30, R31, R32, R33, R36, R37, R90, R91, R92, R100, R120*** *and* ***R200***
1.5mm	R7115
1.6mm (1/16")	R7116
2.0mm	R7120
3.0mm	R7130
3.2mm (1/8")	R7132
4.5mm	R7145
4.8mm (3/16")	R7148
6.0mm	R7160
6.4mm (1/4")	R7164

All dimensions are in mm

Accessories for Standard Connectors

External 'L' Bracket Crimp/Braze Adaptor



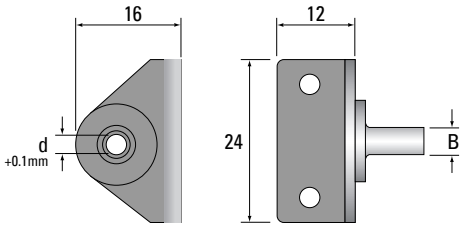




Application
This bracket adaptor crimps or brazes onto a mineral insulated cable or metal tube so it may then be attached to a standard connector. Provides a stronger solution than the Internal Crimp/Braze Adaptor.

Construction
Stainless Steel.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.



to suit tube diameter 'd'	Crimp diameter 'B'	Part codes for use with **220ºC** and **350ºC** rated connectors: ***R10, R11, R12, R13, R16, R17, R18, R19, R20, R22, R25, R30, R31, R32, R33, R36*** *and* ***R37***
1.5mm	2.4mm	**R8515**
1.6mm (1/16")	2.4mm	**R8516**
3.0mm	4.4mm	**R8530**
3.2mm (1/8")	4.4mm	**R8532**
4.5mm	6.0mm	**R8545**
4.8mm (3/16")	6.0mm	**R8548**
6.0mm	8.0mm	**R8560**
6.4mm	8.0mm	**R8564**

External Compression Tube Adaptor



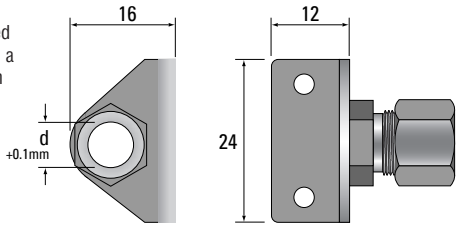




Application
This adaptor compresses onto a mineral insulated cable or metal tube so it may then be attached to a standard connector. Provides a stronger solution than the Internal Compression Tube Adaptor.

Construction
All Stainless Steel parts with Brass olive.

Notes
Bore diameters listed are supplied at 'd' +0.1mm.



To suit tube diameter 'd'	Part codes for use with **220ºC** and **350ºC** rated connectors, ***R51XX*** *series can be used with connectors:* ***R10, R11, R12, R13, R16, R17, R18, R19, R20, R22, R25, R30, R31, R32, R33, R36, R37, R90, R91*** *and* ***R92****. **R52XX** series can be used with connectors:* ***R100****,* ***R120*** *and* ***R200***	
	For use with **220ºC** and **350ºC** connectors	For use with **650ºC ceramic** connectors
1.5mm	**R5115**	**R5215**
1.6mm (1/16")	**R5116**	**R5216**
2.0mm	**R5120**	**R5220**
3.0mm	**R5130**	**R5230**
3.2mm (1/8")	**R5132**	**R5232**
4.5mm	**R5145**	**R5245**
4.8mm (3/16")	**R5148**	**R5248**
6.0mm	**R5160**	**R5260**
6.4mm (1/4")	**R5164**	**R5264**
8.0mm	**R5180**	**R5280**

All dimensions are in mm

Accessories for Standard Connectors

'U' Bracket Cable & Wire Clamp



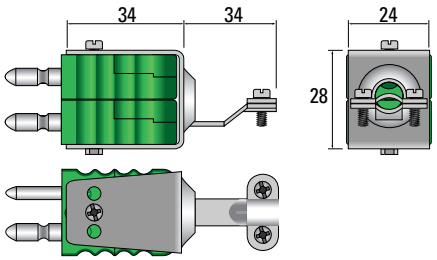
R47 shown

Application
Allows the user to attach a pair of standard connectors together and use as a cable and wire clamp.

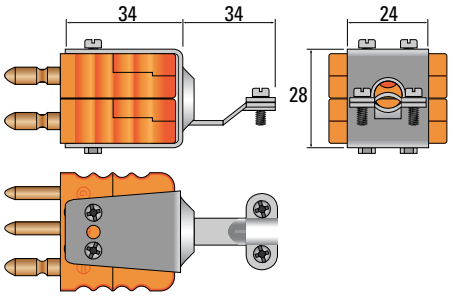
Construction
Stainless steel including stainless steel screws.

Part codes for use with a pair of:		
220ºC and **350ºC** rated **two pin** connectors *R10, R11, R12, R13, R20, R22, R30, R32, R36 or R37*	**220ºC** and **350ºC** rated **three pin** connectors *R16, R17, R18, R19, R25, R31 or R33*	**650ºC** rated **ceramic** connectors *R100, R120 or R200*
R47	**R48**	**R49**

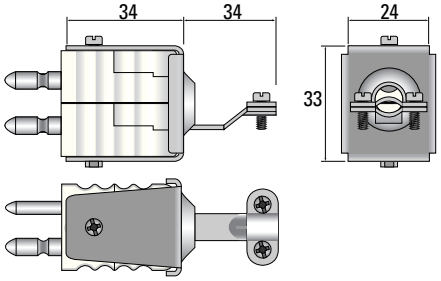
R47
for use with a pair of two pin connectors



R48
for use with a pair of three pin connectors



R49
for use with a pair of ceramic two pin connectors



'U' Bracket Crimp Adaptor



R9460 shown.

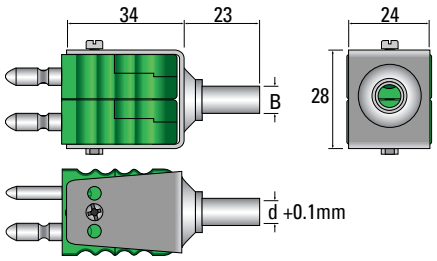
Application
This adaptor crimps onto a mineral insulated cable or metal tube so it may then be attached to a pair of standard connectors.
A crimp tool is also available for 8.0mm crimp diameter - see page 30.

Construction
Stainless Steel.

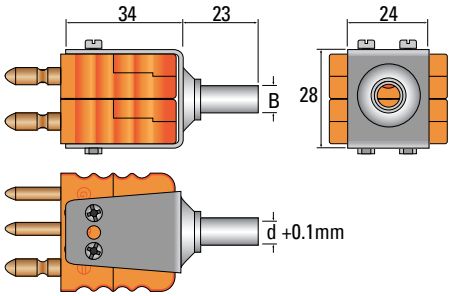
Notes
Bore diameters listed are supplied at 'd' +0.1mm.

to suit tube diameter 'd'	Crimp diameter 'B'	Part codes for use with a pair of: **220ºC** and **350ºC** rated **two pin** connectors *R10, R11, R12, R13, R20, R22, R30, R32, R36 or R37*	**220ºC** and **350ºC** rated **three pin** connectors *R16, R17, R18, R19, R25, R31 or R33*	**650ºC** rated **ceramic** connectors *R100, R120 or R200*
6.0mm	8.0mm	**R9460**	**R9560**	**R9660**
6.4mm (1/4")	8.0mm	**R9464**	**R9564**	**R9664**
8.0mm	10.0mm	**R9480**	**R9580**	**R9680**

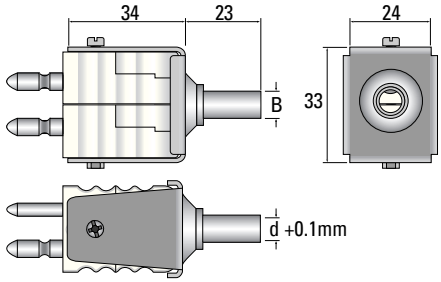
R94XX
for use with a pair of two pin connectors



R95XX
for use with a pair of three pin connectors



R96XX
for use with a pair of ceramic two pin connectors



All dimensions are in mm

Accessories for Standard Connectors

'U' Bracket Compression Tube Adaptor



R5660 shown

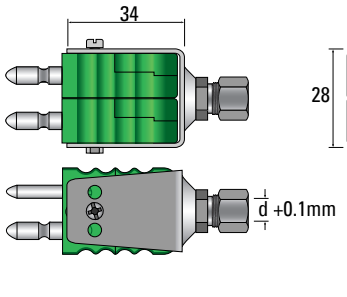
Application
This adaptor compresses onto a mineral insulated cable or metal tube so it may then be attached to a pair of standard connectors.

Construction
Stainless Steel with Brass olive.

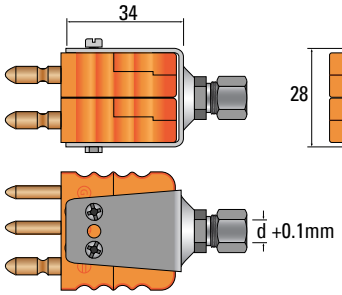
Notes
Bore diameters listed are supplied at 'd' +0.1mm.

to suit tube diameter 'd'	Part codes for use with a pair of: 220ºC and 350ºC rated two pin connectors R10, R11, R12, R13, R20, R22, R30, R32, R36 or R37	220ºC and 350ºC rated three pin connectors R16, R17, R18, R19, R25, R31 or R33	650ºC rated ceramic connectors R100, R120 or R200
1.5mm	R5615	R5715	R5815
1.6mm (1/16")	R5616	R5716	R5816
3.0mm	R5630	R5730	R5830
3.2mm (1/8")	R5632	R5732	R5832
4.5mm	R5645	R5745	R5845
4.8mm (3/16")	R5648	R5748	R5848
6.0mm	R5660	R5760	R5860
6.4mm (1/4")	R5664	R5764	R5864
8.0mm	R5680	R5780	R5880

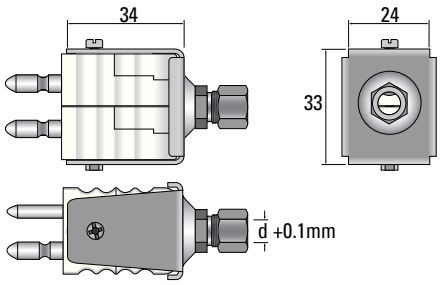
R56XX
for use with a pair of two pin connectors



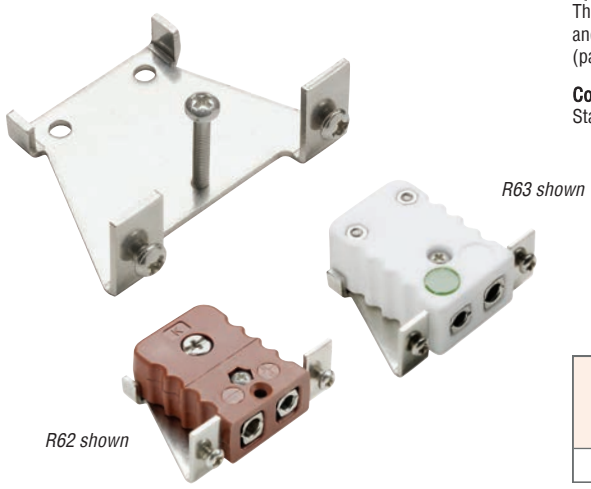
R57XX
for use with a pair of three pin connectors



R58XX
for use with a pair of ceramic two pin connectors



Panel Bracket Adaptor

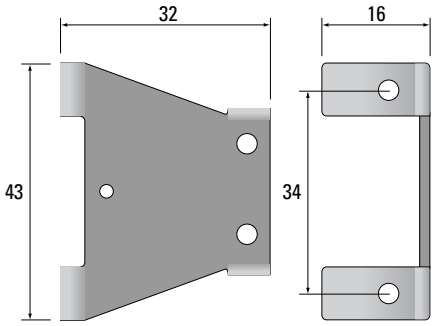


R63 shown

R62 shown

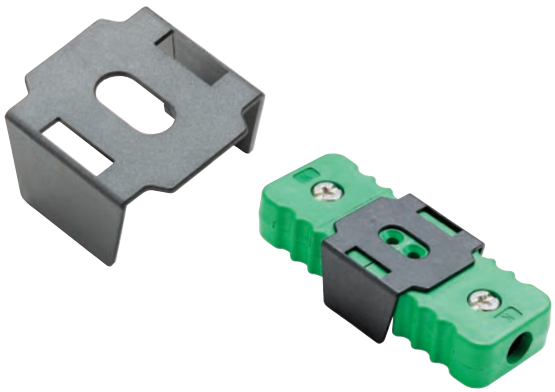
Application
This adaptor allows the user to use a normal socket and adapt it to fit into RSC Series panels for R62 (page 31) or RCC Series panels for R63 (page 32).

Construction
Stainless Steel bracket and screws.



Part code for use with connectors: R20 and R22	Part code for use with ceramic connectors: R200 and R240
R62	R63

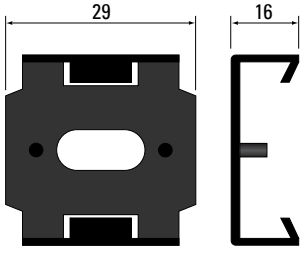
Plastic Locking Clip



Application
For extra protection to prevent accidental disconnection of a standard plug and socket. Can be easily placed over a closed pair of connectors by hand (does not require special tools).

Construction
ABS.

Temperature Rating
110ºC.



Part code for use with connectors: R10 and R20 or R11 and R20
R69

All dimensions are in mm

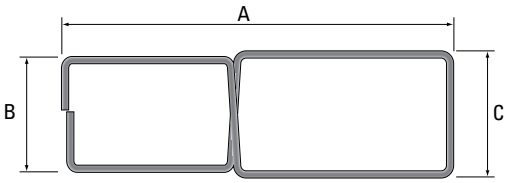
Accessories for Standard Connectors

Wire Locking Clip



Application
These wire clips are used to prevent accidental disconnection of a standard plug and socket. Can be easily placed over a closed pair of connectors by hand (does not require special tools).

Construction: Stainless Steel Wire.

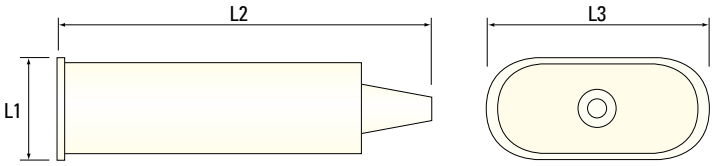


Part codes for use with a pair of:	
220ºC and **350ºC** rated **two pin** connectors ***R11 / R10*** *and* ***R20, R13 / R12*** *and* ***R22*** (A=45mm, B=15mm, C=17mm)	**650ºC** rated **ceramic** connectors ***R100 / R120*** *and* ***R200*** (A=50mm, B=18mm, C=20mm)
R66	**R65**

Protection Boots



R68 shown with connector in position



R68 shown

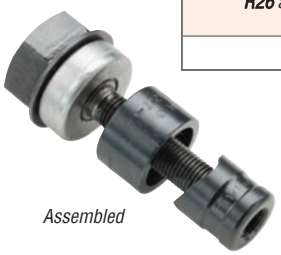
Application
When using two of these protection boots, the user can prevent moisture or dirt from entering a connected pair of connectors. One boot is required per connector.

Construction: Silicone Rubber. **Temperature Rating:** 170°C.

Part code for use with **two pin** connectors: ***R10 and R20*** *or* ***R11 and R20*** (L1=15mm, L2=55mm, L3=33mm)	Part code for use with **three pin** connectors: ***R16*** *and* ***R25*** (L1=15mm, L2=55mm, L3=46mm)
R68	**R67**

Panel Punch





Assembled

Application
This simple device can be used to punch a hole in aluminium, mild steel and some plastics up to 3.5mm thick in order to mount R26, R26H and R32 connectors.

Part code for use with connectors: ***R26*** *and* ***R26H*** *- 27mm diameter cutout*	Part code for use with connector ***R32*** *only - 28.3mm diameter cutout*
R98	**R99**

Crimp Tool

Crimp Tool for use with Miniature and Standard Crimp Adaptors



Die Sets supplied separately

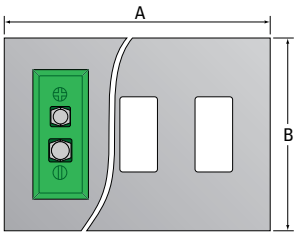
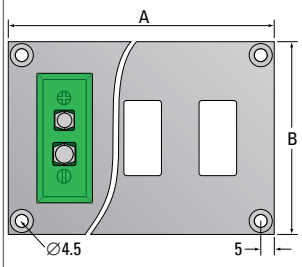
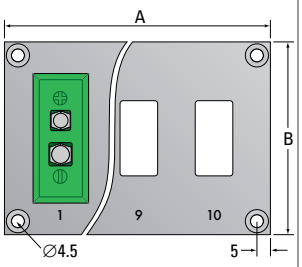
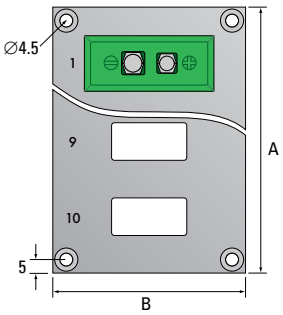
Application
The HCT crimp tool can be used with most of our crimpable tube adaptors (except 10.0mm crimp diameter). Crimp diameters can be found on the relevant accessory page.

Part codes suitable for use with crimp adaptors: **F80****, **F87****, **F89****, **F89**B**, **R80****, **R85 ****, **R89****, **R89**B**, **R94 ****, **R95**** and **R96****	
Crimp Tool	**HCT**
Die Set 1 – Crimp Diameters: 2.4, 3.2 & 4.4mm*	**HCDIE1**
Die Set 2 – Crimp Diameters: 6.0, 6.5 & 8.0mm*	**HCDIE2**

Note: * These are crimp diameters, not tube diameters

Standard Connector Panels

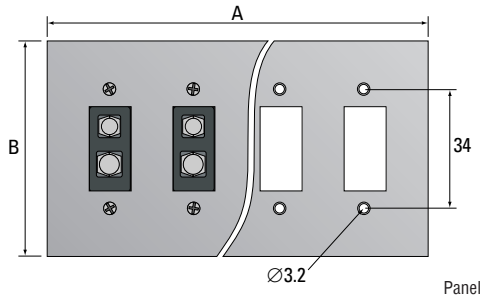
Anodised Aluminium and Stainless Steel Panels - For Flanged 2 Pin Standard Connectors

For use with connectors **R29**, **R29S** and **R34**	**RFP / RSP** Panel without panel mounting holes	**RFS / RSS** Panel with panel mounting holes	**RFH** Horizontal, numbered panel with panel mounting holes	**RFV** Vertical, numbered panel with panel mounting holes
 R29 R29S R34*	 Panel thickness = 2mm	 Panel thickness = 2mm	 Panel thickness = 2mm	 Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	RFP Aluminium Panel	RSP Stainless Steel Panel	RFS Aluminium Panel	RSS Stainless Steel Panel	RFH Aluminium Panel	RFV Aluminium Panel
1	37 x 67	RFP01	RSP01	RFS01	RSS01	RFH01	RFV01
2	62 x 67	RFP02	RSP02	RFS02	RSS02	RFH02	RFV02
4	112 x 67	RFP04	RSP04	RFS04	RSS04	RFH04	RFV04
6	162 x 67	RFP06	RSP06	RFS06	RSS06	RFH06	RFV06
8	212 x 67	RFP08	RSP08	RFS08	RSS08	RFH08	RFV08
10	262 x 67	RFP10	RSP10	RFS10	RSS10	RFH10	RFV10
12	312 x 67	RFP12	RSP12	RFS12	RSS12	RFH12	RFV12
16	212 x 113.5	RFP16	–	RFS16	–	RFH16	RFV16
20	262 x 113.5	RFP20	–	RFS20	–	RFH20	RFV20
24	312 x 113.5	RFP24	–	RFS24	–	RFH24	RFV24

These panels are suitable for use with the following connectors, which should be ordered separately:
R29 - Standard Flanged Panel Socket with Bracket, **R29S** - Standard Flanged Panel Socket with Spring Clip, **R34** - Standard High Temp Flanged Panel Socket with Bracket*
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (R34).

Anodised Aluminium and Stainless Steel Panels - For use with Lugged 2 Pin Standard Connectors

For use with connectors **R27**, **R30**, **R36**, **R37** and **R22**	**RCP / RSC** Panel without panel mounting holes
 R27 R30 R36/R37 R22* (with **R62** adaptor)	 Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	RCP Aluminium Panel	RSC Stainless Steel Panel
1	37 x 67	RCP01	RSC01
2	62 x 67	RCP02	RSC02
4	112 x 67	RCP04	RSC04
6	162 x 67	RCP06	RSC06
8	212 x 67	RCP08	RSC08
10	262 x 67	RCP10	RSC10
12	312 x 67	RCP12	RSC12

These panels are suitable for use with the following connectors, which should be ordered separately:
R27 - Standard Lugged Open Back Panel Socket, **R30** - Standard Lugged Closed Back Panel Socket,
R37 - Standard Lugged Closed Back Panel Plug and **R22** - Standard High Temp Socket with **R62** Adaptor*
These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (R22).

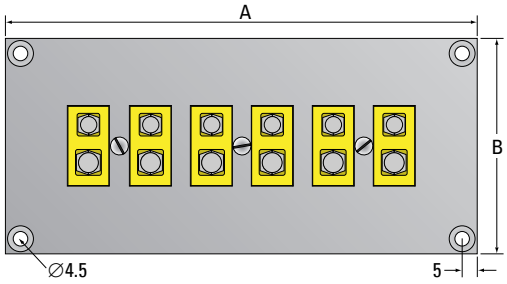
All dimensions are in mm

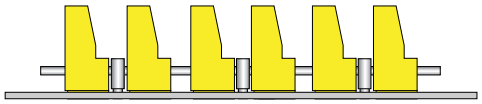
Standard Connector Panels

Anodised Aluminium Panel with Mounting Kit - For use with R28 Connectors

For use with connector **R28**	**RWS** Panel with panel mounting holes







Note: Connectors should be ordered separately. The RWS06 panel is compatible with the 6 way plug RPP*-*

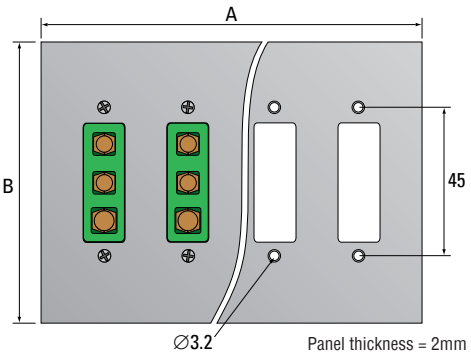
Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**RWS Aluminium Panel** The six way panel is supplied complete with a mounting kit	**Additional Mounting Kit for 6-way Panel** Kit comprises of a set of fixing adaptors, bar and screws
6	146 x 67	**RWS06**	**RMK06**

Anodised Aluminium and Stainless Steel Panels - For use with 3 Pin Standard Panel Connectors

For use with connector **R31**	**RCT / RST** Panel without panel mounting holes





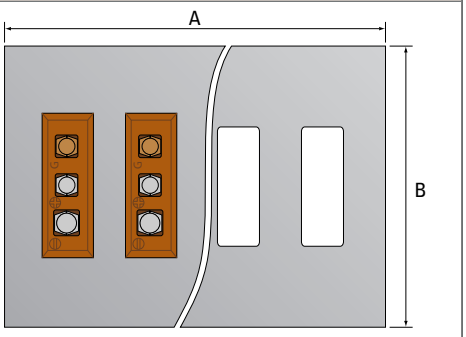
Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**RCT Aluminium Panel**	**RST Stainless Steel Panel**
2	61 x 87	**RCT02**	**RST02**
4	110 x 87	**RCT04**	**RST04**
6	159 x 87	**RCT06**	**RST06**
12	306 x 87	**RCT12**	**RST12**

These panels are suitable for use with the **R31** - Standard Three Pin Lugged Panel Socket, which should be ordered separately. These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.

For use with connector **R35**	**RFT / RSF** Panel without panel mounting holes





Panel thickness = 2mm

No. of Channels	Dimensions A x B in mm	**RFT Aluminium Panel**	**RSF Stainless Steel Panel**
2	62 x 67	**RFT02**	**RSF02**
4	112 x 67	**RFT04**	**RSF04**
6	162 x 67	**RFT06**	**RSF06**

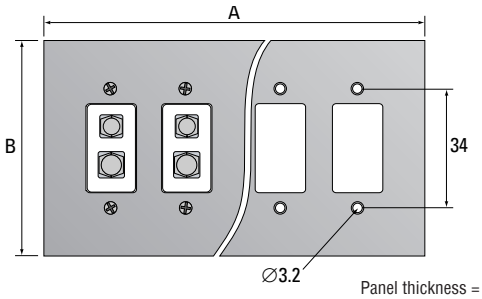
These panels are suitable for use with the following connectors, which should be ordered separately: **R35** - Standard High Temp Three Pin Flanged Panel Socket*
*Note: Aluminium Panels are rated to 250°C which is lower than the rating of the connectors marked with an asterisk (R35).

Stainless Steel Panels - For use with Standard Ceramic Connectors

For use with connector **R200**	**RCC** Panel without panel mounting holes	No. of Channels	Dimensions A x B in mm	**RCC Stainless Steel Panel**



R200 (with **R63** adaptor)



Panel thickness = 2mm

2	63 x 67	**RCC02**	
4	111 x 67	**RCC04**	
6	159 x 67	**RCC06**	
12	303 x 67	**RCC12**	

These panels are suitable for use with the following connectors, which should be ordered separately:
R200 - Standard Ceramic Socket with **R63** Adaptor. These panels are supplied with the correct screws and nuts to allow termination of lugged connectors into the panel slots.

All dimensions are in mm

Index by Part Number

Part No.	Page
BTS	24
DR200	23
DR400	23
DR500	23
DTB	23
F08	8
F09	8
F100	9
F11	5
F13	8
F14	5
F140	9
F16	5
F18	8
F20	6
F200	9
F21	7
F22	8
F23	7
F24	6
F240	9
F25	7
F26	6
F27	6
F29	6
F29S	6
F30	6
F31	7
F32	7
F33	9
F34	8
F35	9
F37	5
F38	7
F40	10
F4105	10
F4110	10
F4115	10
F4130	10
F43	10
F45	10
F46	10
F5015	10
F502015	10
F5035	10
F62	12
F63	12
F67	12
F68	12
F69	12
F7110	11
F7115	11
F7116	11
F7130	11
F7132	11
F8005	11
F8010	11
F8015	11
F8016	11
F8020	11
F8030	11
F8032	11
F8705	11
F8710	11
F8715	11
F8716	11
F8720	11
F8730	11
F8732	11
F8905	11
F8905B	11
F8908	11
F8910	11
F8910B	11
F8915	11
F8915B	11
F8916	11
F8916B	11
F8918	11
F8920	11
F8920B	11
F8923	11
F8926	11
F8927	11
F8930	11
F8930B	11

Part No.	Page
F8932	11
F8932B	11
F8934	11
F91	5
F92	7
F98	12
F99	12
FCP01	13
FCP02	13
FCP04	13
FCP06	13
FCP08	13
FCP10	13
FCP12	13
FCT02	14
FCT04	14
FCT06	14
FCT12	14
FFH01	13
FFH02	13
FFH04	13
FFH06	13
FFH08	13
FFH10	13
FFH12	13
FFH16	13
FFH20	13
FFH24	13
FFP01	13
FFP02	13
FFP04	13
FFP06	13
FFP08	13
FFP10	13
FFP12	13
FFP16	13
FFP20	13
FFP24	13
FFS01	13
FFS02	13
FFS04	13
FFS06	13
FFS08	13
FFS10	13
FFS12	13
FFS16	13
FFS20	13
FFS24	13
FFT02	14
FFT04	14
FFT06	14
FFT12	14
FFV01	13
FFV02	13
FFV04	13
FFV06	13
FFV08	13
FFV10	13
FFV12	13
FFV16	13
FFV20	13
FFV24	13
FSC01	13
FSC02	13
FSC04	13
FSC06	13
FSC08	13
FSC10	13
FSC12	13
FSF02	14
FSF04	14
FSF06	14
FSF12	14
FSP01	13
FSP02	13
FSP04	13
FSP06	13
FSP08	13
FSP10	13
FSP12	13
FSS01	13
FSS02	13
FSS04	13
FSS06	13
FSS08	13
FSS10	13

Part No.	Page
FSS12	13
FST02	14
FST04	14
FST06	14
FST12	14
HCT	30
HCDIE1	30
HCDIE2	30
M11	3
M20	3
M29	3
M8005	3
M8010	3
M8015	3
M8016	3
M8020	3
M8030	3
M8032	3
M8905B	3
M8910B	3
M8915B	3
M8916B	3
M8920B	3
M8930B	3
M8932B	3
MFP01	3
MFP02	3
MFP04	3
MFP06	3
MFP08	3
MFP10	3
MFP12	3
MFP16	3
MFP20	3
MFP24	3
MFS01	3
MFS02	3
MFS04	3
MFS06	3
MFS08	3
MFS10	3
MFS12	3
MFS16	3
MFS20	3
MFS24	3
R07	20
R08	20
R09	21
R10	16
R100	22
R11	16
R12	20
R120	22
R13	20
R130	22
R14	16
R140	22
R15	16
R16	17
R17	17
R18	20
R19	20
R20	18
R200	22
R22	21
R24	18
R240	22
R25	19
R26	18
R26H	18
R27	19
R28	18
R29	18
R29S	18
R30	19
R31	19
R32	19
R33	21
R34	21
R35	21
R36	16
R37	16
R40	25
R4115	25
R4125	25
R4145	25

Part No.	Page
R43	25
R45	25
R46	25
R47	28
R48	28
R49	28
R502015	25
R5035	25
R5115	27
R5116	27
R5120	27
R5130	27
R5132	27
R5145	27
R5148	27
R5160	27
R5164	27
R5180	27
R5215	27
R5216	27
R5220	27
R5230	27
R5232	27
R5245	27
R5248	27
R5260	27
R5264	27
R5280	27
R5615	29
R5616	29
R5630	29
R5632	29
R5645	29
R5648	29
R5660	29
R5664	29
R5680	29
R5715	29
R5716	29
R5730	29
R5732	29
R5745	29
R5748	29
R5760	29
R5764	29
R5780	29
R5815	29
R5816	29
R5830	29
R5832	29
R5845	29
R5848	29
R5860	29
R5864	29
R5880	29
R62	29
R63	29
R65	30
R66	30
R67	30
R68	30
R69	29
R7115	26
R7116	26
R7120	26
R7130	26
R7132	26
R7145	26
R7148	26
R7160	26
R7164	26
R8005	26
R8010	26
R8015	26
R8016	26
R8020	26
R8030	26
R8032	26
R8045	26
R8048	26
R8060	26
R8064	26
R8515	27
R8516	27
R8530	27
R8532	27

Part No.	Page
R8545	27
R8548	27
R8560	27
R8564	27
R8805	26
R8810	26
R8815	26
R8816	26
R8820	26
R8830	26
R8832	26
R8845	26
R8848	26
R8860	26
R8864	26
R8905	26
R8905B	26
R8908B	26
R8910	26
R8910B	26
R8915	26
R8915B	26
R8916	26
R8916B	26
R8920	26
R8920B	26
R8923	26
R8930	26
R8930B	26
R8932	26
R8932B	26
R8940	26
R8945	26
R8945B	26
R8948	26
R8948B	26
R8955	26
R8960	26
R8960B	26
R8964	26
R8964B	26
R90	17
R91	17
R92	19
R9460	28
R9464	28
R9480	28
R9560	28
R9564	28
R9580	28
R9660	28
R9664	28
R9680	28
R98	30
R99	30
RCC02	32
RCC04	32
RCC06	32
RCC12	32
RCP01	31
RCP02	31
RCP04	31
RCP06	31
RCP08	31
RCP10	31
RCP12	31
RCT02	32
RCT04	32
RCT06	32
RCT12	32
RFH01	31
RFH02	31
RFH04	31
RFH06	31
RFH08	31
RFH10	31
RFH12	31
RFH16	31
RFH20	31
RFH24	31
RFP01	31
RFP02	31
RFP04	31
RFP06	31
RFP08	31
RFP10	31

Part No.	Page
RFP12	31
RFP16	31
RFP20	31
RFP24	31
RFS01	31
RFS02	31
RFS04	31
RFS06	31
RFS08	31
RFS10	31
RFS12	31
RFS16	31
RFS20	31
RFS24	31
RFT02	32
RFT04	32
RFT06	32
RFV01	31
RFV02	31
RFV04	31
RFV06	31
RFV08	31
RFV10	31
RFV12	31
RFV16	31
RFV20	31
RFV24	31
RLAL	24
RLCH	24
RLCO	24
RLCU	24
RLCUPR	24
RLIR	24
RLNIC	24
RLNIS	24
RMK06	32
RPP	23
RPS	23
RSC01	31
RSC02	31
RSC04	31
RSC06	31
RSC08	31
RSC10	31
RSC12	31
RSF02	32
RSF04	32
RSF06	32
RSP01	31
RSP02	31
RSP04	31
RSP06	31
RSP08	31
RSP10	31
RSP12	31
RSS01	31
RSS02	31
RSS04	31
RSS06	31
RSS08	31
RSS10	31
RSS12	31
RST02	32
RST04	32
RST06	32
RST12	32
RWS06	32
SLAL	24
SLCH	24
SLCO	24
SLCU	24
SLCUPR	24
SLIR	24
SLNIC	24
SLNIS	24
TLAL	24
TLCH	24
TLCO	24
TLCU	24
TLCUPR	24
TLIR	24
TLNIC	24
TLNIS	24

Notes

Terms and Conditions

Prices

Prices for all products are provided in the TC price list. Should there be any price amendments then a new price list will be issued accordingly. If you receive an invoice where there is a price query then please advise us of this discrepancy within 7 days of the invoice date. Every effort will be made to resolve the query amicably.

Descriptions

We give as much detail as is possible on all products and further details can be obtained from us promptly where necessary. Whilst we do not accept any liability for errors or omissions, our copywriters have done a good job to check this catalogue carefully. If there are any problems though, we will try our hardest to sort them out between us. We want you to come back.

Suitability

The suitability of any of the products shown in this catalogue is entirely at your discretion, as the purchaser must be the best judge for any particular application. However, in the unlikely event of there being a problem, we will try our hardest to find a speedy resolution to the benefit of all concerned. We want your continuing business!

Liability and guarantee

All of our products are guaranteed to be free from defect or faulty workmanship. We will promptly replace, at our cost any product which we consider as faulty and our limitation of liability is limited to the value of the product in question.

Product improvement

Product improvement is a continuing goal at TC. We reserve the right to change, vary or alter the product specification without prior notification.

Damage in transit or shortages

All our products are checked and packed with care, but if you do have a problem, call us as soon as you know, but no later than seven days following receipt of goods. We will look to resolve the problem to everyone's satisfaction.

Ownership

Goods remain our property until they are paid for in full.

Copyright

Reproduction in part or whole of this catalogue without written prior consent is prohibited.

Promise

We promise to give you the best possible service. If you think that you have not been dealt with to your satisfaction, speak to our Customer Services Manager who will do all that is possible to rectify the matter.

TC Measurement & Control AB
Tallbacksgatan 11F
Rosersberg 195 72
Sverige

Tel: 08 252 202
E-post: info@tcmc.se
www.tcmc.se

© TC Measurement & Control AB
Utgåva: 1126