

Thermocouple Connector Product Guide



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

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

Thermocouple Pins

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

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

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

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

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

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

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





A

IEC Miniature Plug

B

ANSI Miniature Plug

C

JIS Miniature Plug

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	7086362	2347116	2347173
J	Iron	Copper Nickel	151128	2347115	2347172
T	Copper	Copper Nickel	7086404	2377117	-
N	Nickel / Chromium / Silicon	Nickel Silicon	7086430	-	-
R/S	Copper	Copper Alloy	2347020	-	-
B	Copper	Copper	2347018	-	-
E	Nickel Chromium	Copper Nickel	2347019	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Miniature Socket

B

ANSI Miniature Socket

C

JIS Miniature Socket

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	8598282	2347121	2347175
J	Iron	Copper Nickel	8598274	2347119	2347174
T	Copper	Copper Nickel	8598266	2347122	-
N	Nickel / Chromium / Silicon	Nickel Silicon	7086428	-	-
R/S	Copper	Copper Alloy	2347023	-	-
B	Copper	Copper	2347021	-	-
E	Nickel Chromium	Copper Nickel	2347022	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Miniature Quick-wire Plugs

B

ANSI Miniature Quick-wire Plugs

C

JIS Miniature Quick-wire Plugs

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810392	2347124	2347177
J	Iron	Copper Nickel	3810380	2347123	2347176
T	Copper	Copper Nickel	3810410	2347125	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347026	-	-
R/S	Copper	Copper Alloy	2347028	-	-
B	Copper	Copper	2347024	-	-
E	Nickel Chromium	Copper Nickel	2347025	-	-
Cu	Copper	Copper	3810422	-	-

[Click here to view schematic drawing](#)



A IEC Miniature Quick-wire Sockets

B ANSI Miniature Quick-wire Sockets

C JIS Miniature Quick-wire Sockets

Type	+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810446	2347127	2347181
J	Iron	Copper Nickel	3810434	2347126	2347178
T	Copper	Copper Nickel	3810460	2347128	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347031	-	-
R/S	Copper	Copper Alloy	2347032	-	-
B	Copper	Copper	2347029	-	-
E	Nickel Chromium	Copper Nickel	2347030	-	-
Cu	Copper	Copper	3810471	-	-

[Click here to view schematic drawing](#)



A

IEC Miniature Rectangular Fascia Socket

B

ANSI Miniature Rectangular Fascia Socket

C

JIS Miniature Rectangular Fascia Socket

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	7086386	2347130	2347183
J	Iron	Copper Nickel	-	2347129	2347182
T	Copper	Copper Nickel	7086416	2347132	-
N	Nickel / Chromium / Silicon	Nickel Silicon	7086441	-	-
R/S	Copper	Copper Alloy	2347035	-	-
B	Copper	Copper	2347033	-	-
E	Nickel Chromium	Copper Nickel	2347034	-	-
Cu	Copper	Copper	-	-	-

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A

IEC Miniature Panel Mount with Stainless Steel Bracket

B

ANSI Miniature Panel Mount with Stainless Steel Bracket

C

JIS Miniature Panel Mount with Stainless Steel Bracket

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810525	2347134	2347185
J	Iron	Copper Nickel	2347038	2347133	2347184
T	Copper	Copper Nickel	2347043	2347135	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347041	-	-
R/S	Copper	Copper Alloy	-	-	-
B	Copper	Copper	2347036	-	-
E	Nickel Chromium	Copper Nickel	2347037	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Miniature Quick-wire Panel Mount with Stainless Steel Bracket

B

ANSI Miniature Quick-wire Panel Mount with Stainless Steel Bracket

C

JIS Miniature Quick-wire Panel Mount with Stainless Steel

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	8598304	2347137	2347187
J	Iron	Copper Nickel	2347046	2347136	2347186
T	Copper	Copper Nickel	2347049	2347138	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347047	-	-
R/S	Copper	Copper Alloy	2347048	-	-
B	Copper	Copper	2347044	-	-
E	Nickel Chromium	Copper Nickel	2347045	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A IEC Miniature PCB Socket

B ANSI Miniature PCB Socket

C JIS Miniature PCB Socket

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810628	2347140	2347189
J	Iron	Copper Nickel	2347053	2347139	2347188
T	Copper	Copper Nickel	2347056	2347141	-
N	Nickel / Chromium / Silicon	Nickel Silicon	-	-	-
R/S	Copper	Copper Alloy	-	-	-
B	Copper	Copper	2347050	-	-
E	Nickel Chromium	Copper Nickel	2347051	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Plug

B

ANSI Standard Plug

C

JIS Standard Plug

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	7087925	2347144	2347191
J	Iron	Copper Nickel	-	2347142	2347190
T	Copper	Copper Nickel	3810215	2347145	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2081266	-	-
R/S	Copper	Copper Alloy	7087950	-	-
B	Copper	Copper	2347061	-	-
E	Nickel Chromium	Copper Nickel	2347062	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Sockets

B

ANSI Standard Sockets

C

JIS Standard Sockets

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	7087937	2347147	2347194
J	Iron	Copper Nickel	-	2347146	2347193
T	Copper	Copper Nickel	3810240	2347148	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2081268	-	-
R/S	Copper	Copper Alloy	2347066	-	-
B	Copper	Copper	2347063	-	-
E	Nickel Chromium	Copper Nickel	2347065	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Quick-wire Plugs

B

ANSI Standard Quick-wire Plugs

C

JIS Standard Quick-wire Plugs

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810276	2347150	2347196
J	Iron	Copper Nickel	3810264	2347149	2347195
T	Copper	Copper Nickel	2347071	2347151	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347069	-	-
R/S	Copper	Copper Alloy	2347070	-	-
B	Copper	Copper	2347067	-	-
E	Nickel Chromium	Copper Nickel	2347068	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Quick-wire Sockets

B

ANSI Standard Quick-wire Sockets

C

JIS Standard Quick-wire Sockets

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810331	2347153	2347198
J	Iron	Copper Nickel	3810320	2347152	2347197
T	Copper	Copper Nickel	2347077	2347154	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347074	-	-
R/S	Copper	Copper Alloy	2347075	-	-
B	Copper	Copper	2347072	-	-
E	Nickel Chromium	Copper Nickel	2347073	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Fascia Sockets

B

ANSI Standard Fascia Sockets

C

JIS Standard Fascia Sockets

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	7087949	2347157	2347200
J	Iron	Copper Nickel	-	-	2347199
T	Copper	Copper Nickel	3810495	2347158	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347080	-	-
R/S	Copper	Copper Alloy	2347081	-	-
B	Copper	Copper	2347078	-	-
E	Nickel Chromium	Copper Nickel	2347079	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Panel Mount with Stainless Steel Bracket

B

ANSI Standard Panel Mount with Stainless Steel Bracket

C

JIS Standard Panel Mount with Stainless Steel Bracket

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	3810574	2347160	2347202
J	Iron	Copper Nickel	2347084	2347159	2347201
T	Copper	Copper Nickel	2347087	2347161	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347085	-	-
R/S	Copper	Copper Alloy	2347086	-	-
B	Copper	Copper	2347082	-	-
E	Nickel Chromium	Copper Nickel	2347083	-	-
Cu	Copper	Copper	-	-	-

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

Type	‘+’ Contact	‘-’ Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	-	2347163	2347204
J	Iron	Copper Nickel	2347092	2347162	2347203
T	Copper	Copper Nickel	2347095	2347164	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347093	-	-
R/S	Copper	Copper Alloy	2347094	-	-
B	Copper	Copper	2347089	-	-
E	Nickel Chromium	Copper Nickel	2347091	-	-
Cu	Copper	Copper	-	-	-

[Click here to view schematic drawing](#)



A

IEC Standard Duplex Plug

B

ANSI Standard Duplex Plug

C

JIS Standard Duplex Plug

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	2347103	2347166	2347206
J	Iron	Copper Nickel	2347102	2347165	2347205
T	Copper	Copper Nickel	2347107	2347168	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347104	-	-
R/S	Copper	Copper Alloy	2347105	-	-
B	Copper	Copper	2347100	-	-
E	Nickel Chromium	Copper Nickel	2347101	-	-
Cu	Copper	Copper	-	-	-

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A

IEC Standard Duplex Socket

B

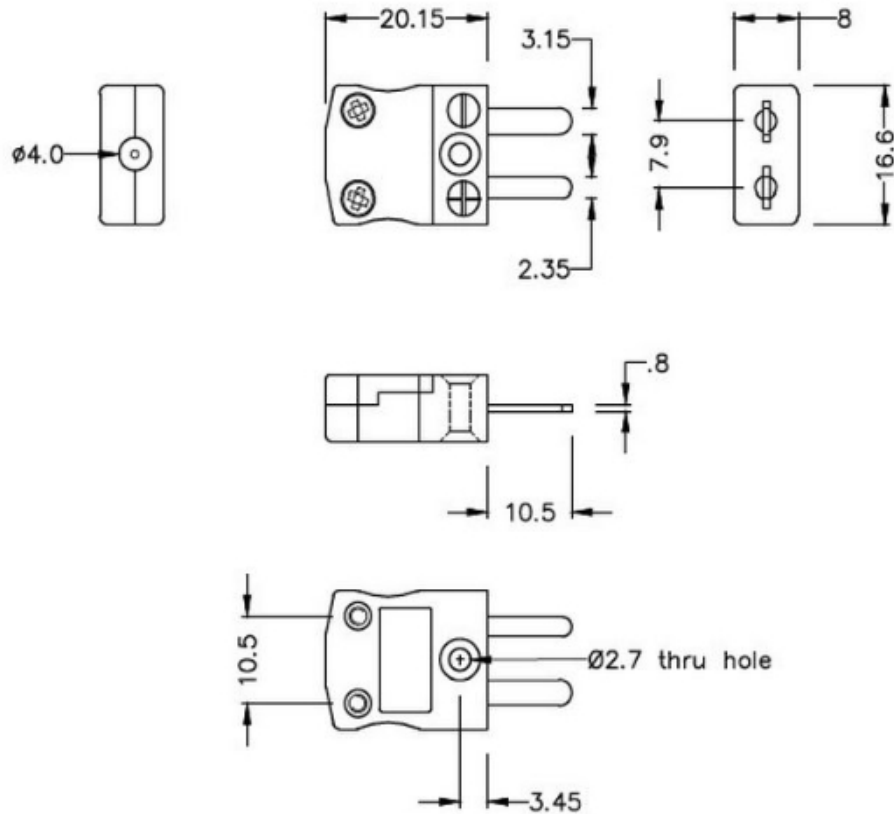
ANSI Standard Duplex Socket

C

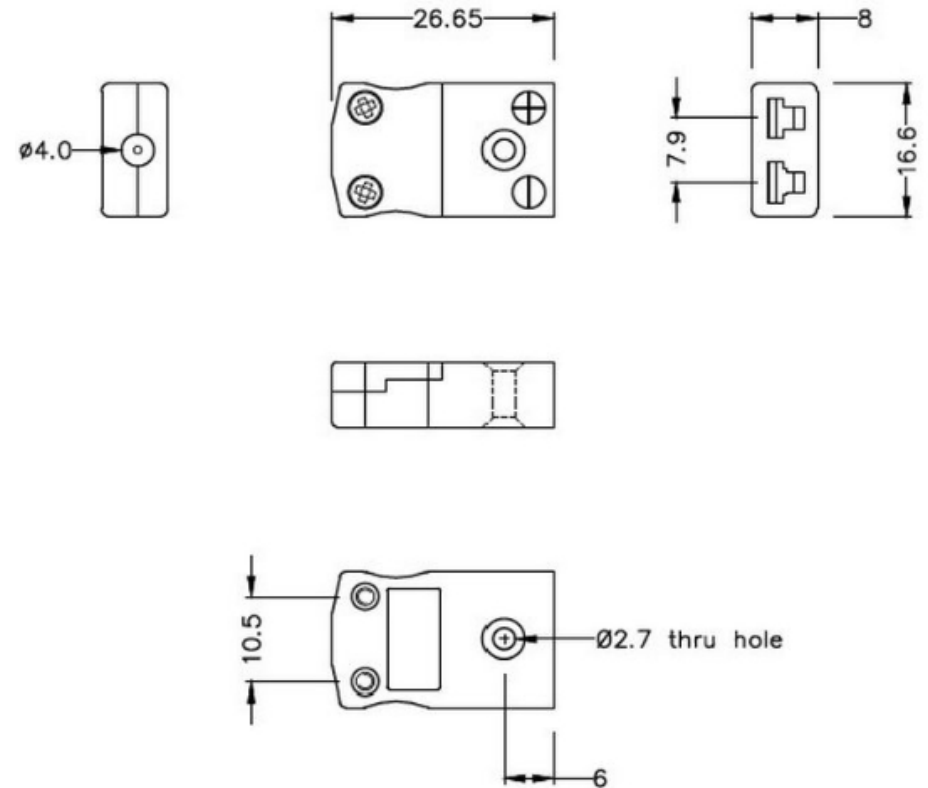
JIS Standard Duplex Socket

Type	'+' Contact	'-' Contact	A	B	C
			IEC Colour Code	ANSI Colour Code	JIS Colour Code
K	Nickel Chromium	Nickel Alloy	2347111	2347170	2347208
J	Iron	Copper Nickel	2347110	2347169	2347207
T	Copper	Copper Nickel	2347114	2347171	-
N	Nickel / Chromium / Silicon	Nickel Silicon	2347112	-	-
R/S	Copper	Copper Alloy	2347113	-	-
B	Copper	Copper	2347108	-	-
E	Nickel Chromium	Copper Nickel	2347109	-	-
Cu	Copper	Copper	-	-	-

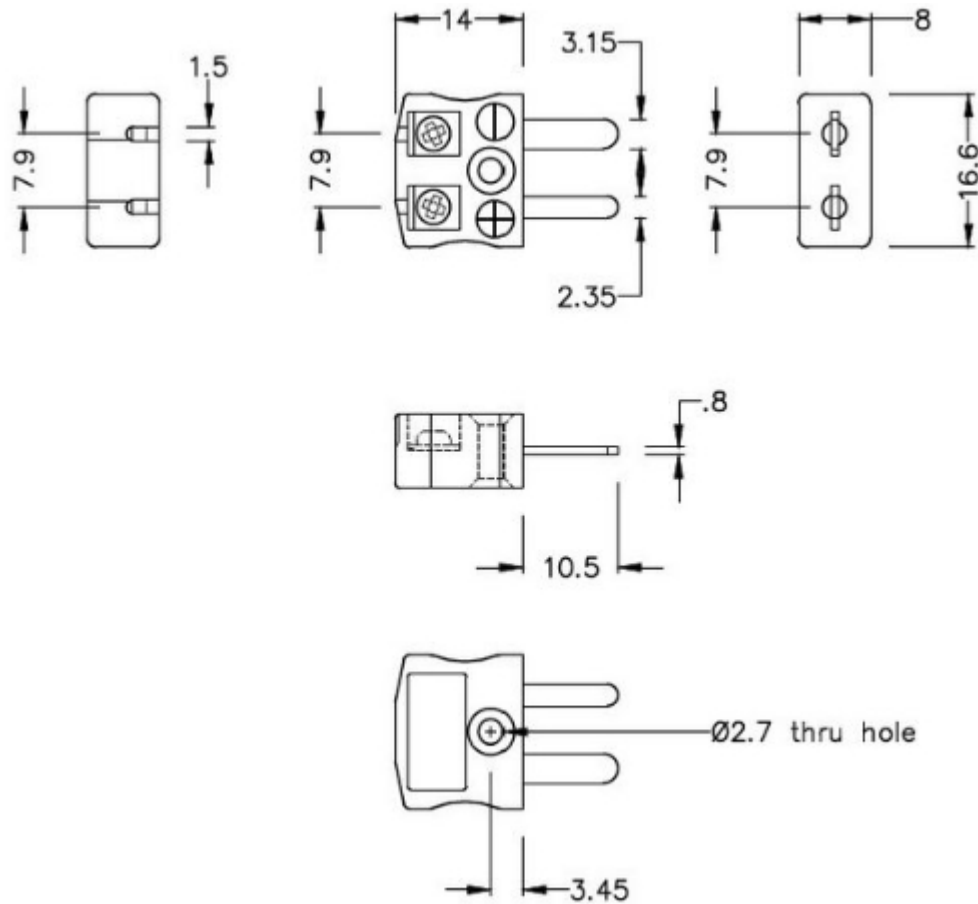
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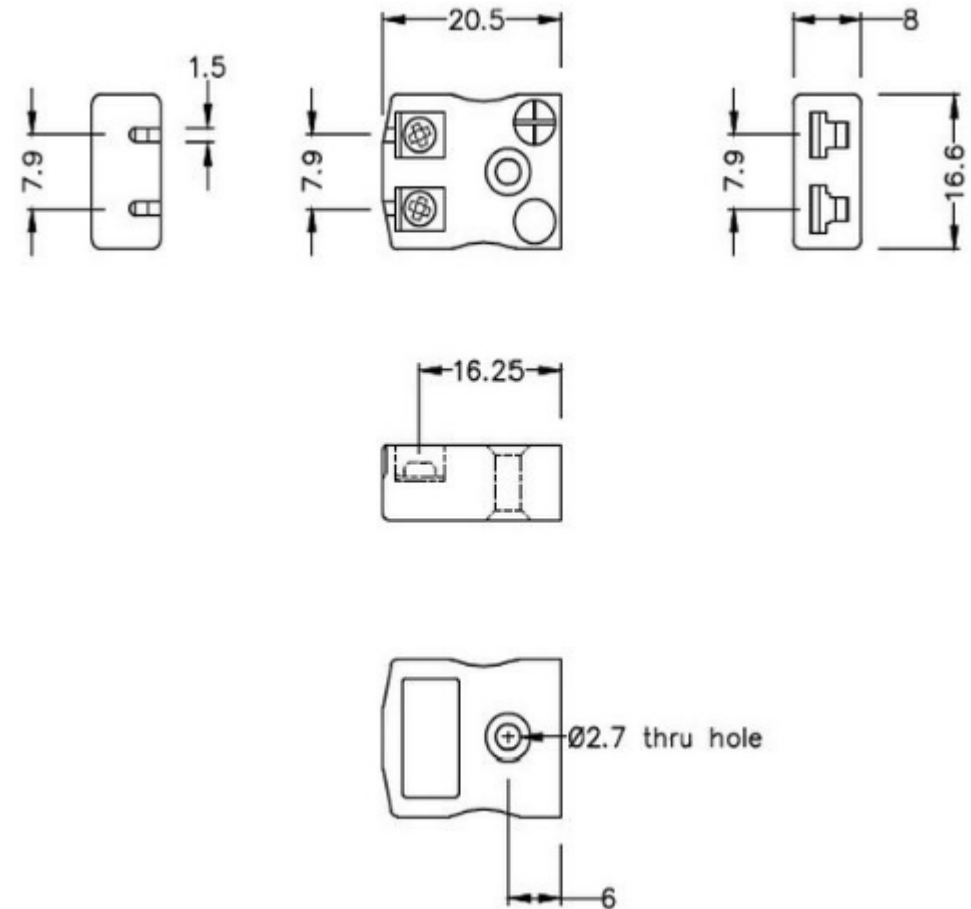
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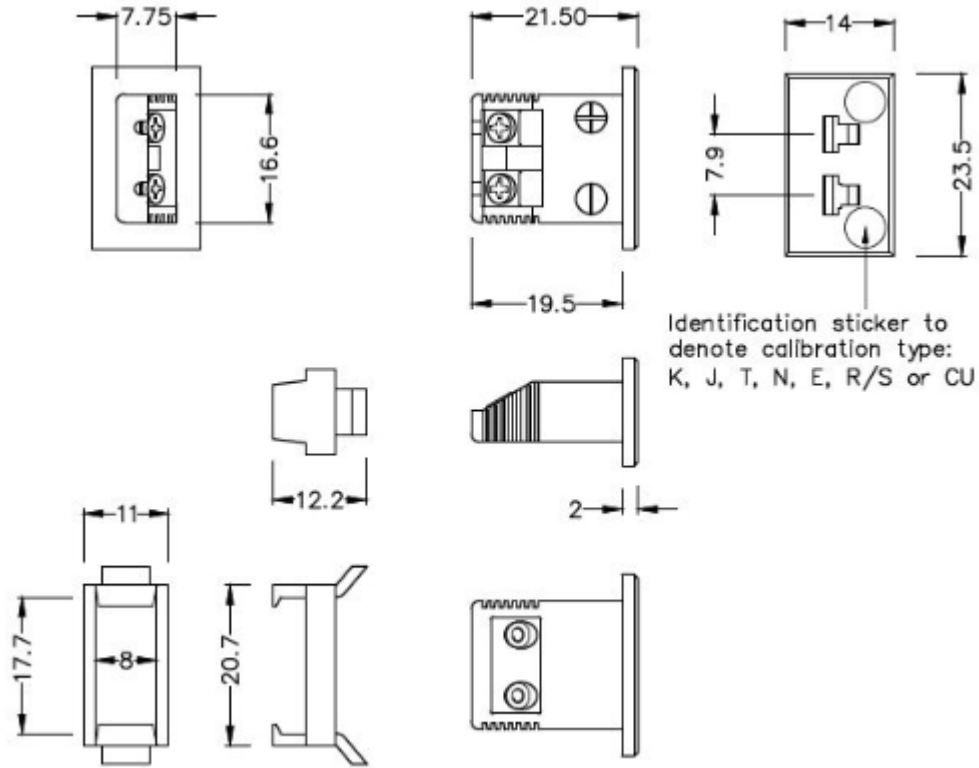
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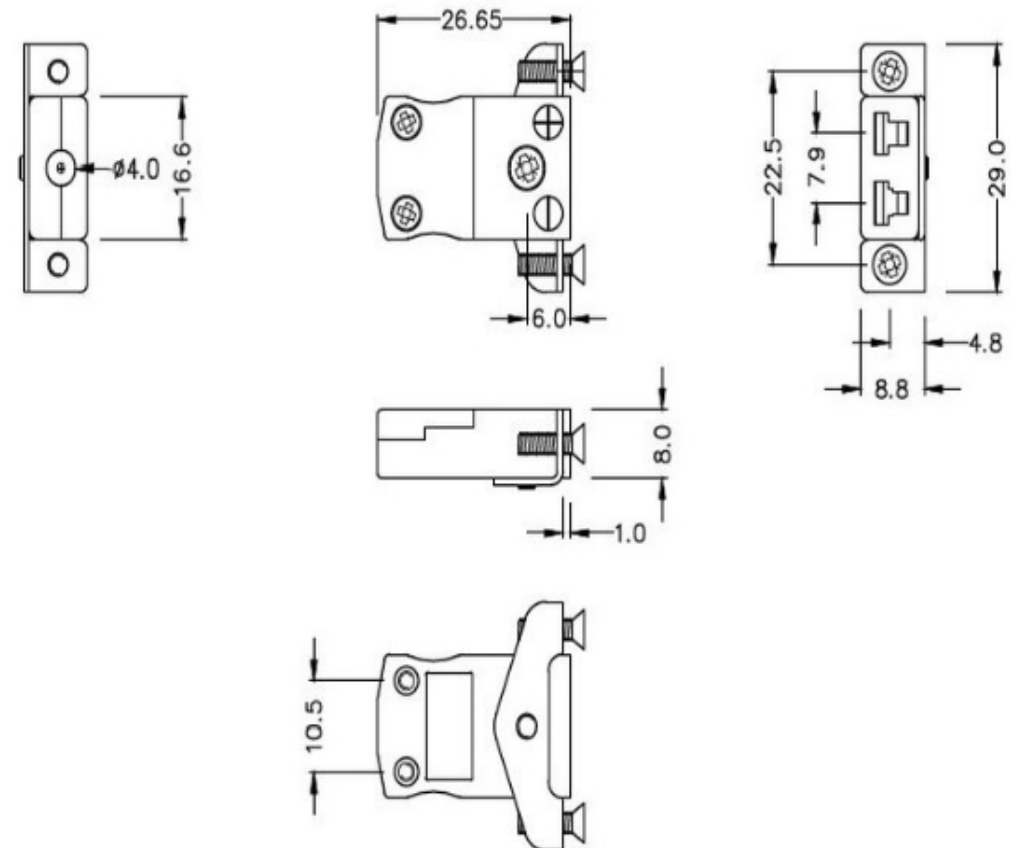
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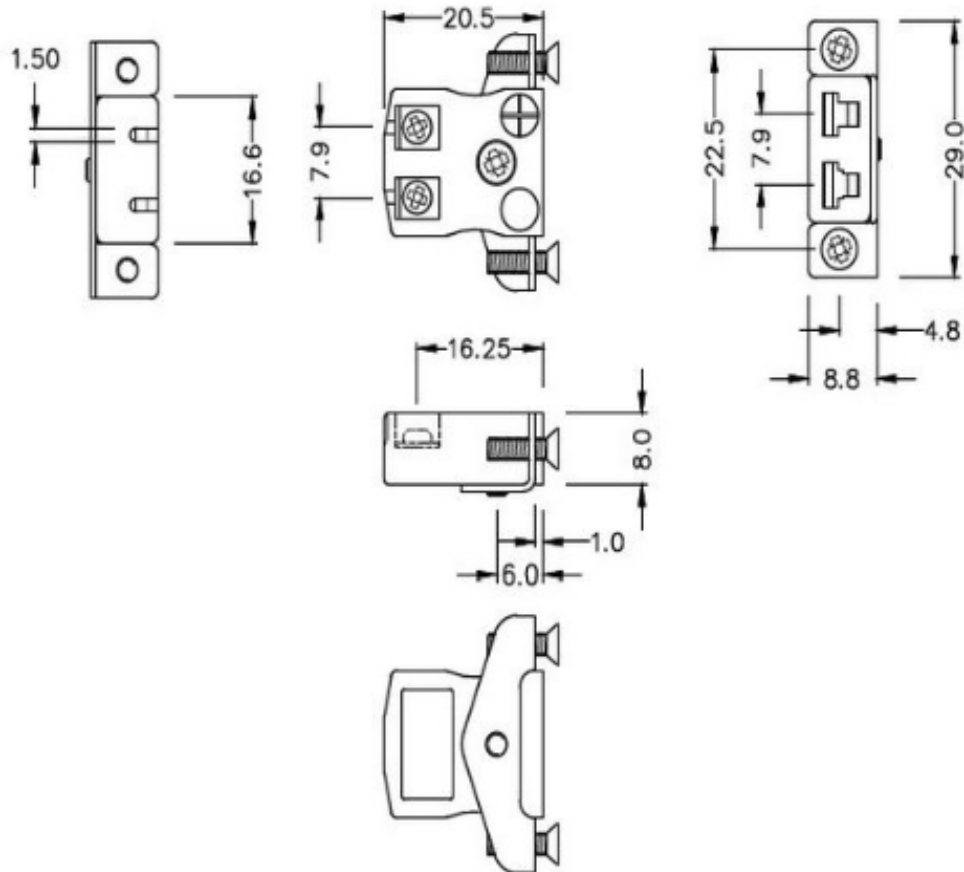
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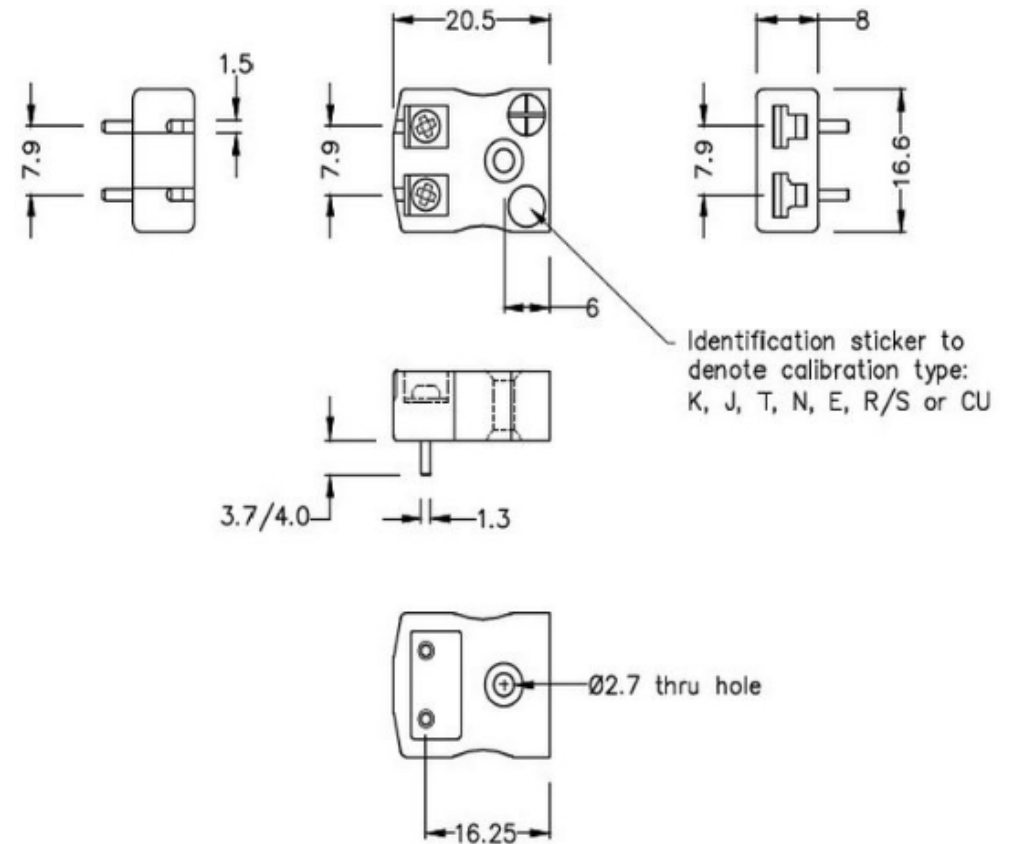
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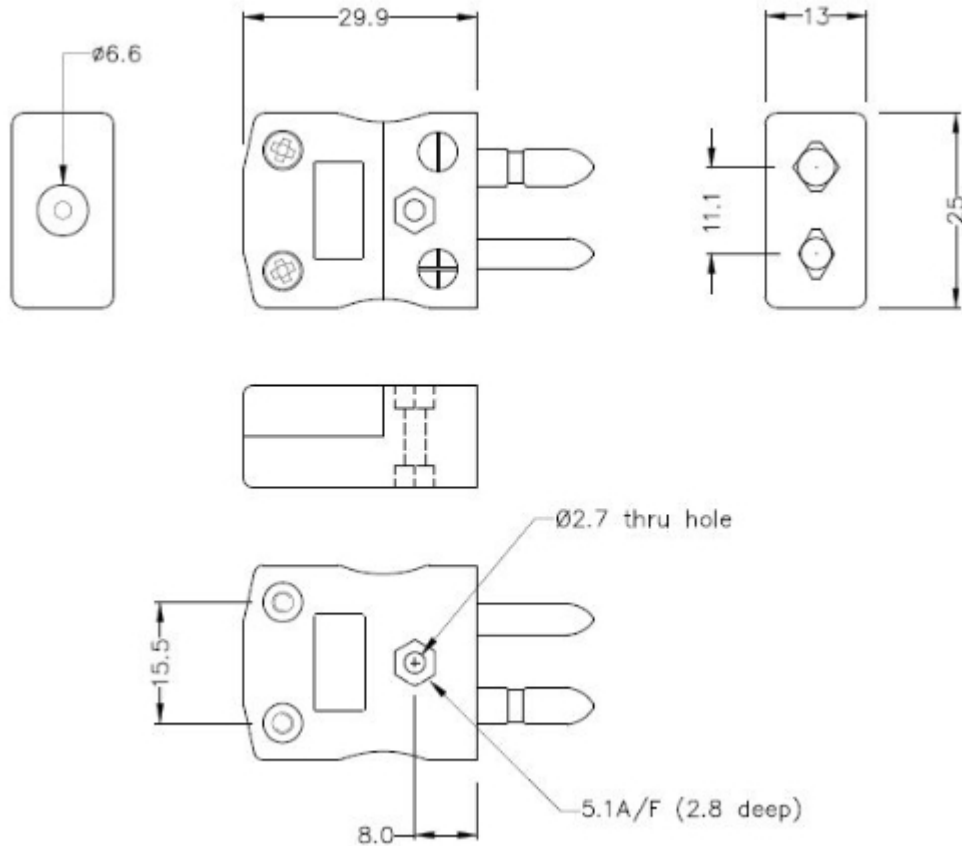
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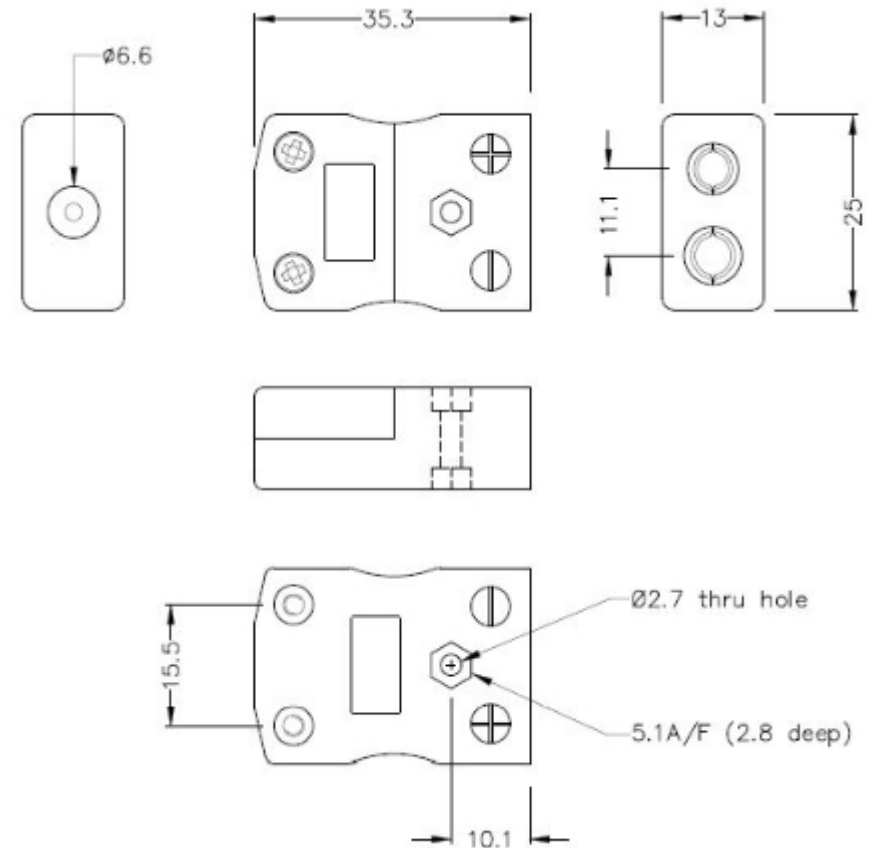
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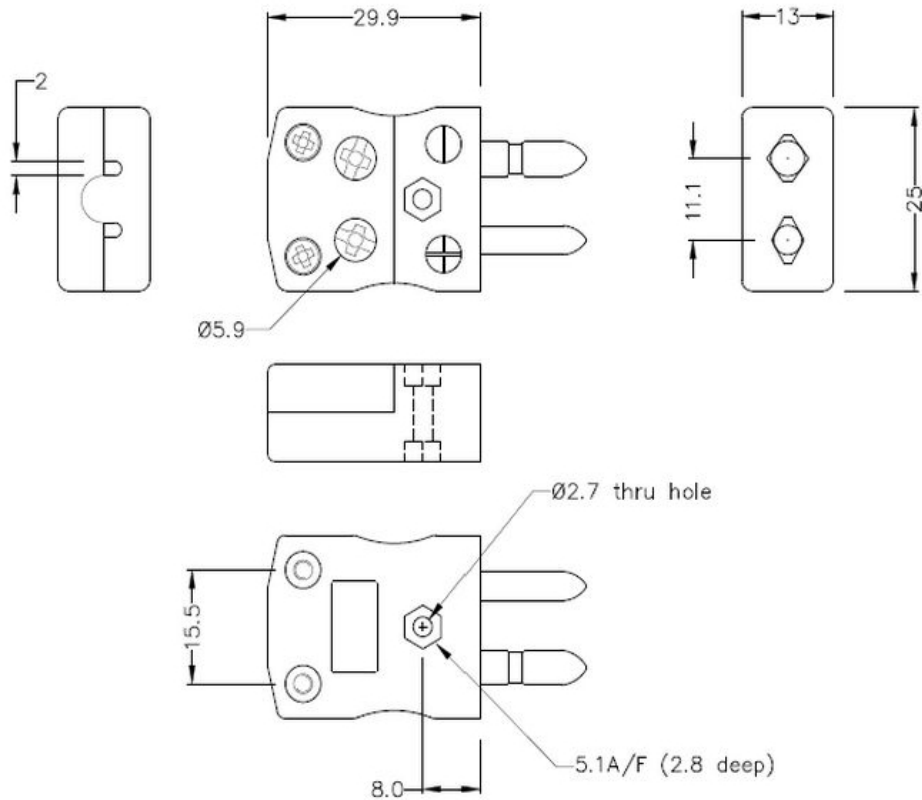
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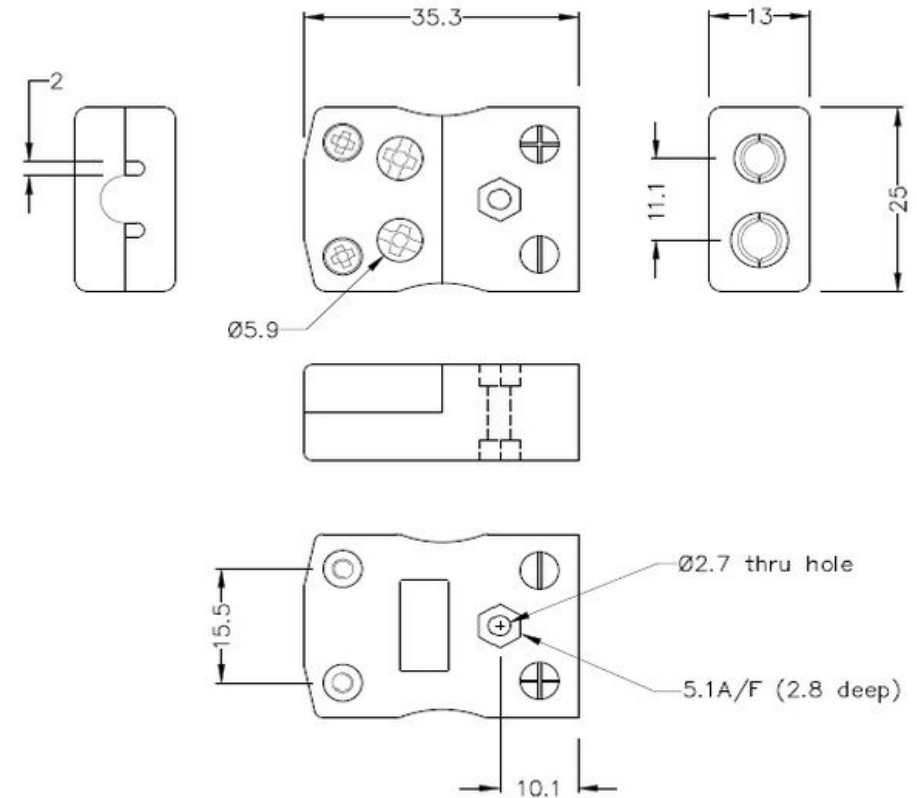
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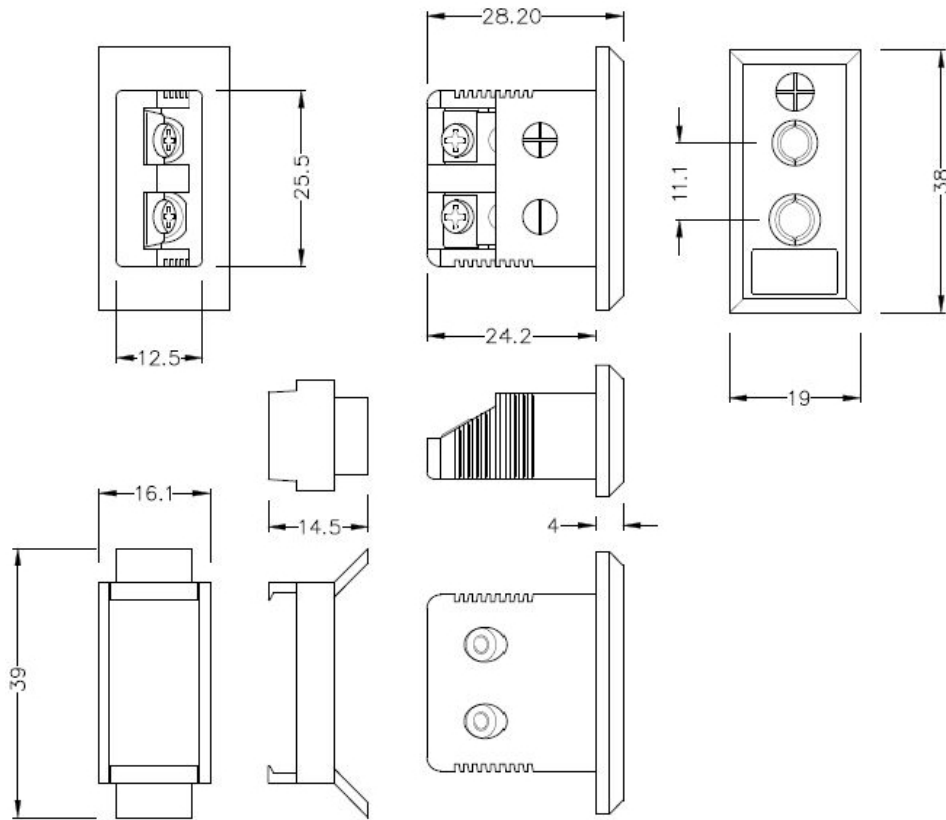
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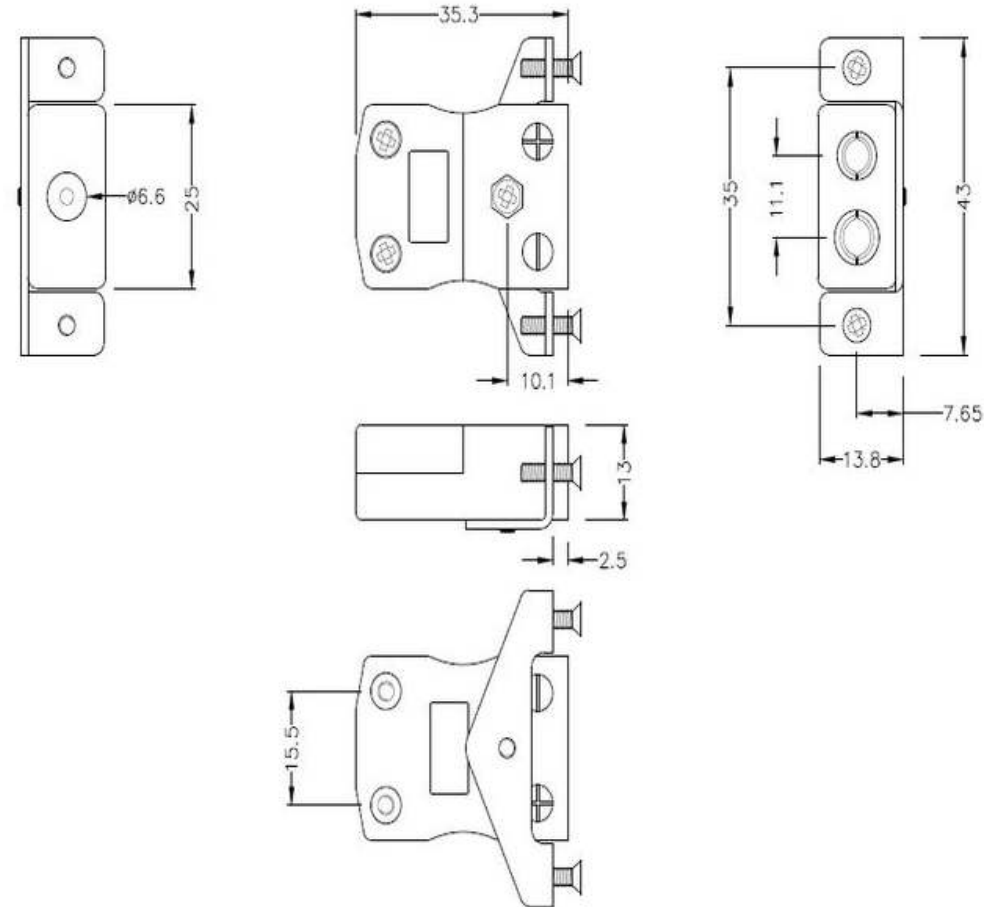
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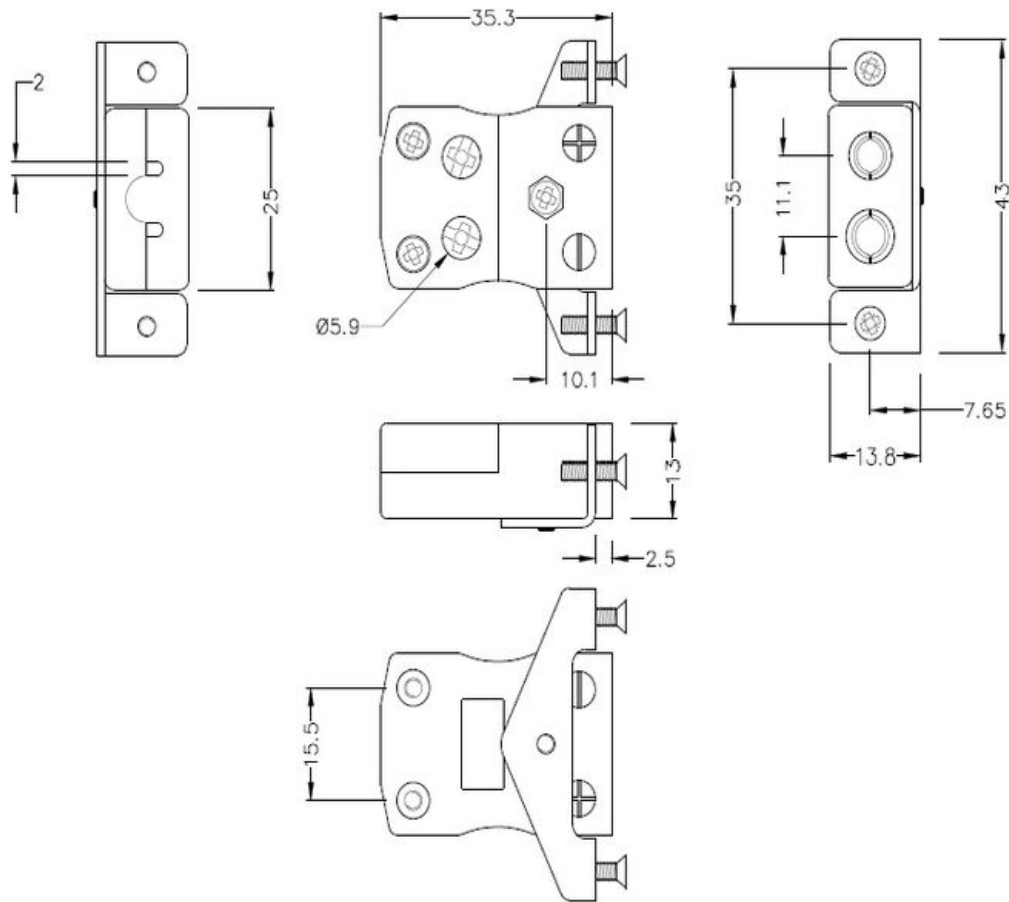
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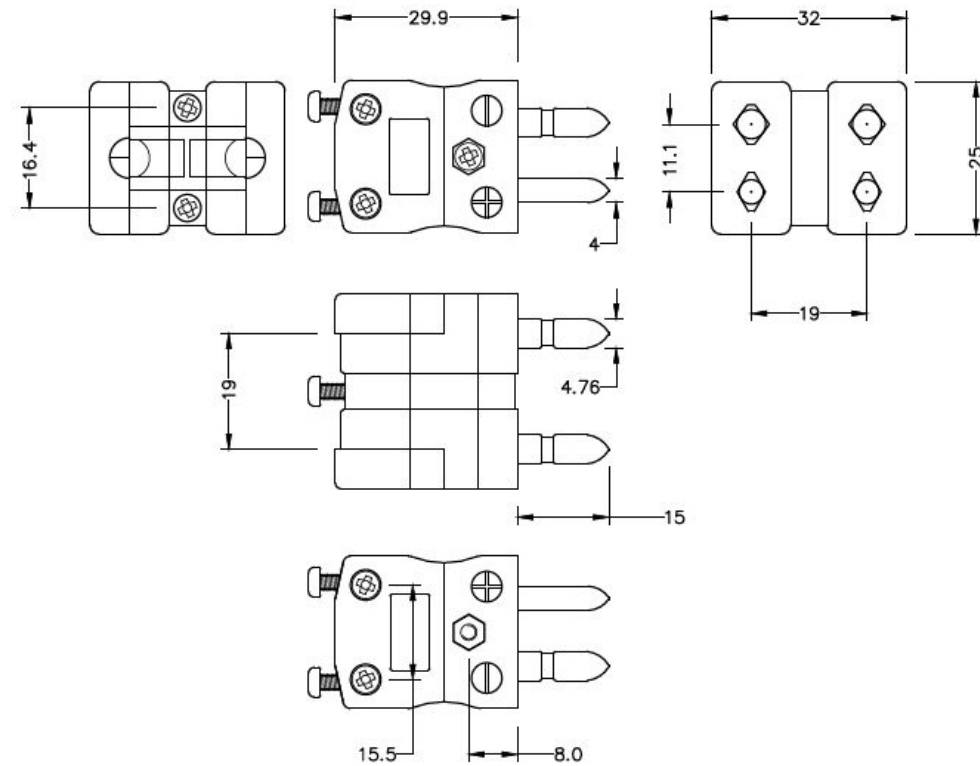
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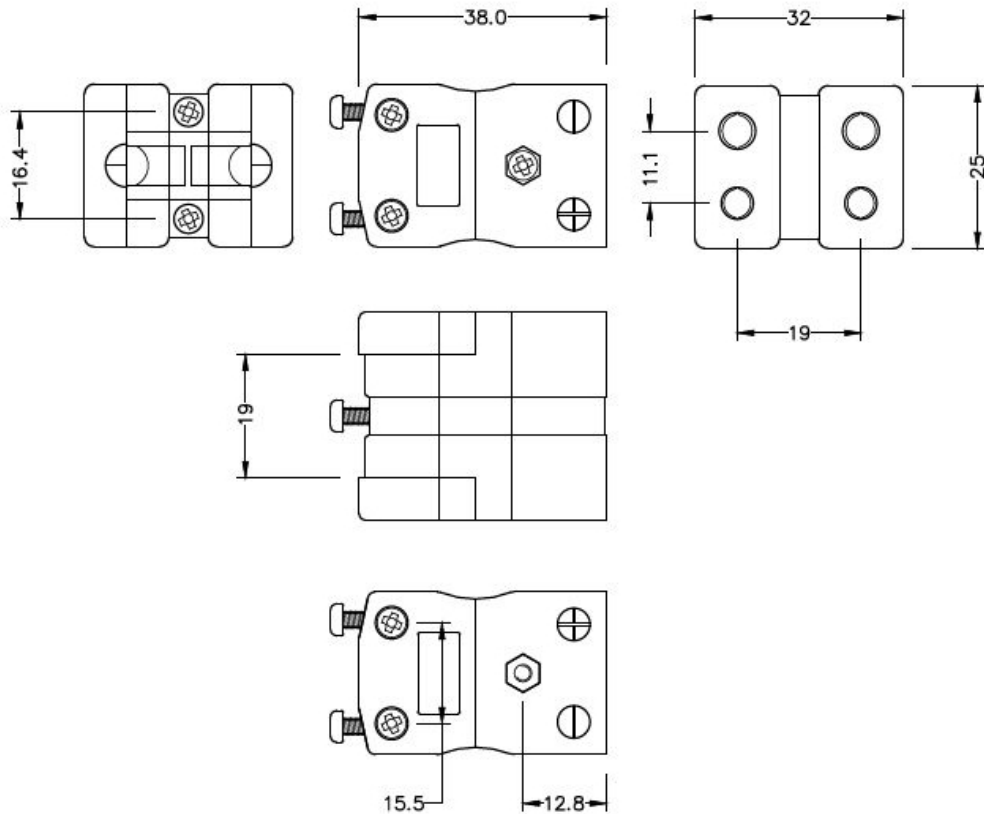
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[Click here to view Standard Thermocouple Connectors - Quick-wire Panel Mount with Stainless Steel Bracket](#)



[Click here to view Standard Thermocouple Connectors - Duplex Plug](#)



[Click here to view Standard Thermocouple Connectors - Duplex Socket](#)

International Thermocouple Colour Codes For Connector Bodies

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

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