

Product Facts

- Termination by generic tools
- Small 2.0 mm [.079] centerline connectors
- Two contact points structure provides for high contact reliability
- Housing colors indicate applicable wire range
- Component Recognized by UL to US and Canadian Standards, File No. E28476



Performance Characteristics

Current rating— Max. 3 A
Voltage rating— 32V DC

Applicable wire range— 0.1 to 5.0 mm² [27 to 20 AWG]

Outside Diameter— 0.6 to 1.6 mm [.02 – .06]

Technical Documents

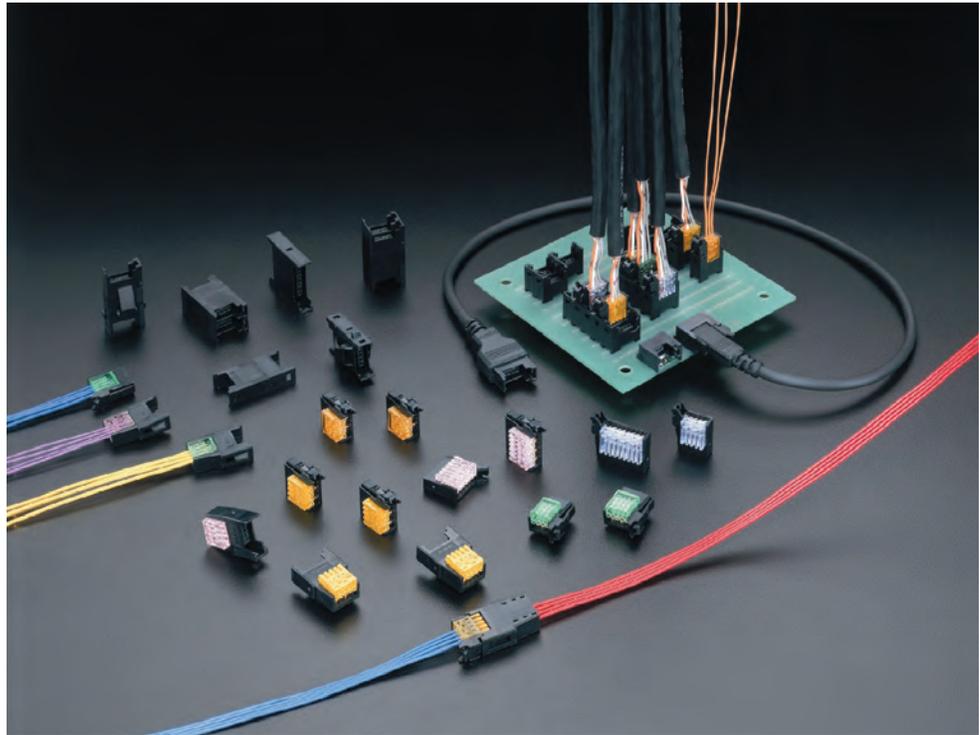
Product Specifications—
 108-5851
 108-5765

Instruction Sheets—
 411-78014
 411-78162

Material and Finish

Housing— PBT (UL 94V-0)/
 Polycarbonate (UL 94V-0)/
 LCP (SMT Products)

Contact— Phosphor Bronze
 Platings - 0.2 μm [.000007]
 gold plated underplated 1.27μm
 [.000050] Ni



The e-CON standard was developed in Japan in 2001 by a group of Japanese manufacturers in order to standardize connections from sensors to terminals. This standard is not under control of any standard

organizations. Without the standard, each manufacturer had specified different connectors for terminations of sensors to Programmable Logic Controllers (PLCs), and end users had to prepare many different connectors and different tools. In order to improve

this situation and create a user-friendly environment, Tyco Electronics has offered AMP RITS connectors as the standard interface connector for sensors, and the 4-position RITS connector is approved as the industry standard connector.

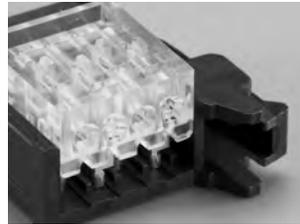
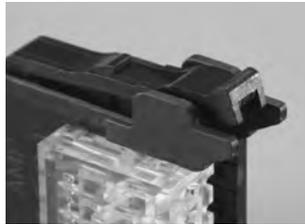
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TEFLON is a trademark of E.I. du Pont de Nemours and Company.

Locking Configuration

The new locking lever design secures a wire-to-wire connection and can be pulled through a partially jammed wiring duct. When mated, a very clear click-sound will be heard. It will help prevent accidental half-mating.



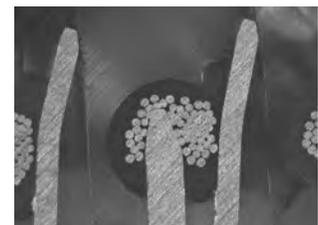
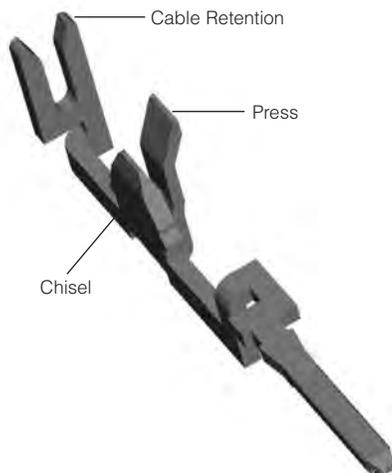
Chisel Press Contact

This new technology has three major features: Chisel, Press and Retention.

The chisel shaped contact pierces into wire to secure a much larger contact area. The press function will keep

the contact pressure applied. The retention mechanism retains the wire at higher retention force than Insulation Displacement Contact (IDC) connectors.

Chisel Press Contact is the new wire termination technology to be applied for many kinds of wire from solid to multi-stranded commonly used in Factory Automation (FA) industries.



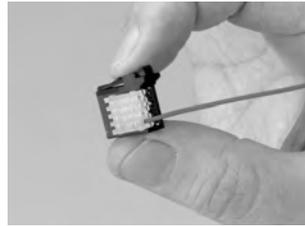
Wire Termination Cross Section

Electronics

Easy Termination

Easier terminations made with lower applied cost and improved quality.

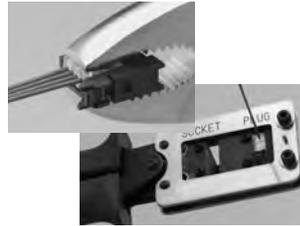
In the manufacturing process of FA equipment, electrical connections by crimping are commonly seen in the assembly lines. However, it often requires too much work time and causes quality level concerns. RITS (Remote I/O Terminal System) connectors offer an easy connection method as well as total cost reduction with higher electrical reliability without special skill to perform the work.



Step 1

Insert each wire into Housing.

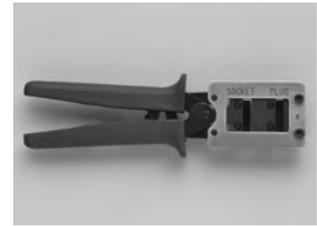
Pliers can only be used for 3- and 4-position RITS connectors.



Step 2

Squeeze housing together with pliers or press the housing together with a special tool.

Please use the special tool for larger than 5-position RITS connectors.



Part Number— 1729940-1

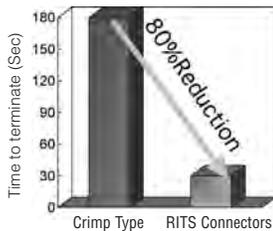
Instruction Sheet— 411-78162

Please refer to Instruction Sheet 411-78014 for further detail.

The way to connect wire is quite easy: Insert wire into a housing and pinch the housing with a generic tool such as pliers. Tyco Electronics also provides a special tool for RITS termination at a more economical price than a crimp-type tool due to its simple function.

Cost Reduction

RITS Connectors offer 80% cost reduction of operation compared to conventional crimping connectors.



Product Features

Plug Connectors	Header Connectors PCB Mount	Junction Box (2D)	Junction Box (4D)	Socket Connectors
<ul style="list-style-type: none"> ■ Plug Connectors for wire termination ■ Consists of Hold Housing and Body Housing ■ Hold Housing colors indicate applicable wire range 	<ul style="list-style-type: none"> ■ Connectors for PCB ■ Stackable mounting is possible ■ Single-row and 4-row types available ■ Right-angle type available with SMT type ■ Helps prevent misdirection when inserting 	<ul style="list-style-type: none"> ■ For Junction Box ■ Plugs can be mated on both sides ■ Panel type version also available 	<ul style="list-style-type: none"> ■ Basic same features as 2D type ■ Four circuits are made common, respectively 	<ul style="list-style-type: none"> ■ Socket connectors for wire termination ■ Plug can be mated ■ Hold housing color same as Plug connectors

Electronics

RITS connectors are available for wire-to-wire type and PCB mount type from 3- through 8-positions.

No. of Positions	Plug Connector					Header (PCB Mount)				Junction Box		Socket Connector			
	Hold Housing Color					Vertical		Horizontal		2D	4D	Hold Housing Color			
	Orange	Red	Yellow	Blue	Green	Single-Row	4-Row	Single-Row	Red			Yellow	Blue	Green	
	Wire Range (Outside Diameter)								Wire Range (Outside Diameter)						
3P	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	•	•	•	•	•	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]
4P*	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	•	•	•	•	•	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]
5P	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	-	-	-	-	-	-	-	-	-
6P	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	-	-	•	-	-	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]
7P	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	-	-	-	-	-	-	-	-	-
8P	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]	•	-	-	•	-	-	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.6 [.053-.063]

* Available
- Not Available
*e-CON Conform (4-Position)

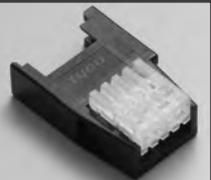
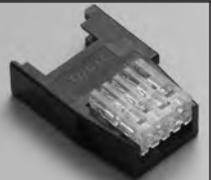
Applied Wire

Applicable wire is designated by its outside diameter. Please choose the appropriate connector from the outside diameter of wire to be used.

Plug Housing

Wire Range*	0.1-0.5 mm ² [27-20 AWG]				
Outside Diameter	0.6-0.9 [.024-.035]	0.9-1.0 [.035-.039]	1.0-1.15 [.039-.045]	1.15-1.35 [.045-.053]	1.35-1.60 [.053-.063]
Color	Orange	Red	Yellow	Blue	Green
Part Number	3-1473562-x	1-1473562-x	1437562-x	2-1473562-x	4-1473562-x
					

Socket Housing

Color	Red	Yellow	Blue	Green
Part Number	1-1746741-x	1746741-x	2-1746741-x	4-1746741-x
				

Insulation Material PVC/PE/TEFLON

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How to choose the appropriate connector:

Please find the wire diameter and see the above table. You can find the appropriate part number for it. All wire needs to be tested for termination with the connector. Further detailed information is available from Technical Support.

*When 0.08 mm² [29 AWG] wire is to be used, please contact Technical Support.

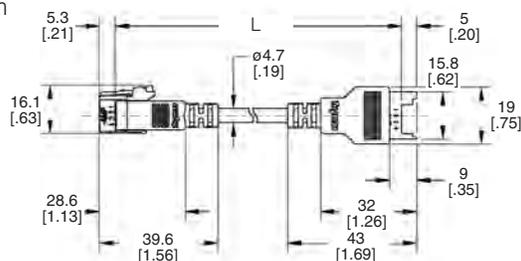
Note: All part numbers are RoHS Compliant.

Electronics

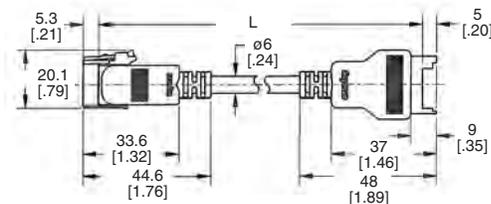
Overmolded Cable Assemblies

The cable assemblies are available in lengths of 50 cm [20"] up to 2 m [79"]. From 50 cm [20"] to 1 m [39"] the cable assemblies are offered in increments of 10 cm [4"], and from 1 m to 2 m [39" to 79"] in increments of 25 cm [10"].

4P



6P



Performance Characteristics

Current Rating— 2 A

Voltage Rating— 32 VDC

Temperature Rating—
-30°C to +60°C [-22°F to +140°F]

Material and Finish

Housing—PBT UL94V-0

Overmold—PVC UL94V-0

Contact—Copper alloy, Underplate Ni, Contact Area Au

Cable— UL Style 2464
4C x 24 AWG [0.2 mm²]

Cable Length mm [inch]	Part Number
500 [20]	1674056-1
600 [24]	1674056-2
700 [28]	1674056-3
800 [32]	1674056-4
900 [35]	1674056-5
1000 [39]	1674056-6
1250 [49]	1674056-7
1500 [59]	1674056-8
1750 [69]	1674056-9
2000 [79]	1-1674056-0

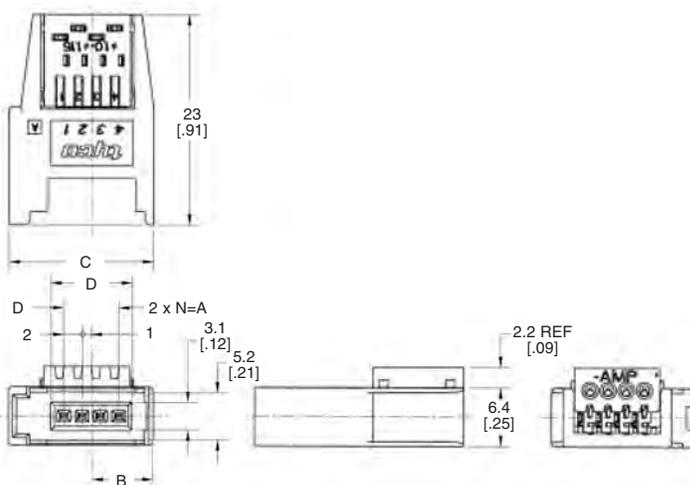
Cable Length mm [inch]	Part Number
500 [20]	1674762-1
600 [24]	1674762-2
700 [28]	1674762-3
800 [32]	1674762-4
900 [35]	1674762-5
1000 [39]	1674762-6
1250 [49]	1674762-7
1500 [59]	1674762-8
1750 [69]	1674762-9
2000 [79]	1-1674762-0

Note: All part numbers are RoHS Compliant.

Please see Product Specification 108-5851 for further details.

Socket Connectors

x-1746741-x
-3 to -8 shows No. of Positions
Shows wire range: Blank- Yellow,
1- Red, 2- Blue, 4- Green



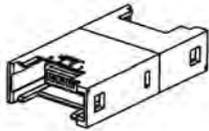
No. of Positions	Dimensions					Part Number			
	N	A	B	C	D	Hold Housing Color			
						Yellow	Red	Blue	Green
3	2 [.08]	4 [.16]	5.75 [.23]	13.8 [.54]	6.9 [.27]	1746741-3	1-1746741-3	2-1746741-3	4-1746741-3
4	3 [.12]	6 [.24]	6.75 [.27]	15.8 [.62]	8.9 [.35]	1746741-4	1-1746741-4	2-1746741-4	4-1746741-4
6	5 [.20]	10 [.39]	8.75 [.35]	19.8 [.78]	12.9 [.51]	1746741-6	1-1746741-6	2-1746741-6	4-1746741-6
8	7 [.28]	14 [.55]	10.75 [.42]	23.8 [.94]	16.9 [.67]	1746741-8	1-1746741-8	2-1746741-8	4-1746741-8

Note: All part numbers are RoHS Compliant.

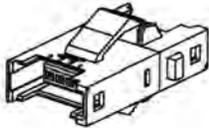
Junction Box (2D Type)

x-1473571-x
 -3 to -8 shows No. of Positions

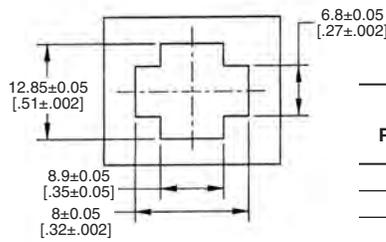
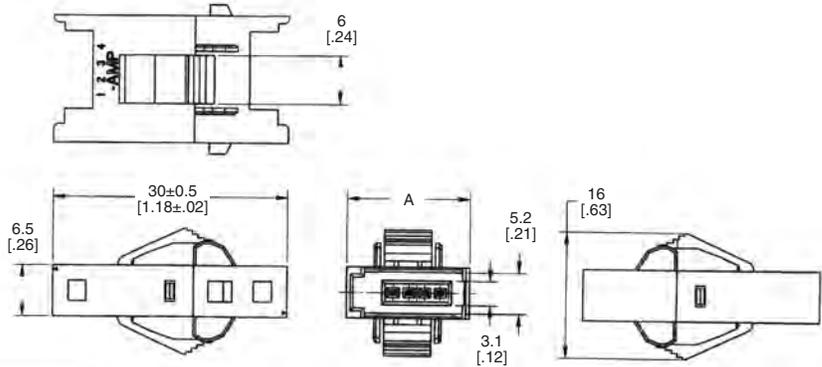
Shows connector style:
 Blank- Panel Mount Style,
 5- Free Hanging Style



Free Hanging Style



Panel Mount Style



Panel Layout
 Panel Thickness 1.0 to 2.0 [.04 to .08]

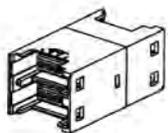
No. of Positions	Dimensions		Part Number	
	A	B	Panel Mount Style	Free Hanging Style
3	13.8 [.54]	14.1 [.56]	1473571-3	5-1473571-3
4	15.8 [.62]	16.1 [.63]	1473571-4	5-1473571-4
6	19.8 [.78]	20.1 [.79]	1473571-6	5-1473571-6
8	23.8 [.94]	24.1 [.95]	1473571-8	5-1473571-8

Note: All part numbers are RoHS Compliant.

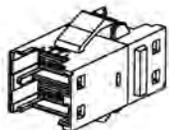
Junction Box (4D Type)

x-1473574-x
 -3 to -4 shows No. of Positions

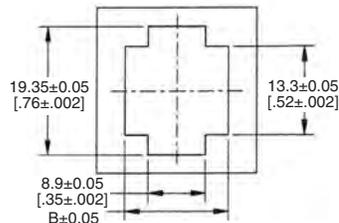
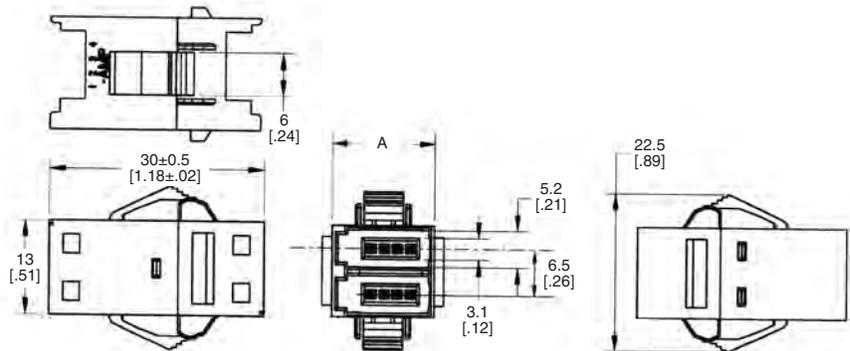
Shows connector style:
 Blank- Panel Mount Style,
 5- Free Hanging Style



Free Hanging Style



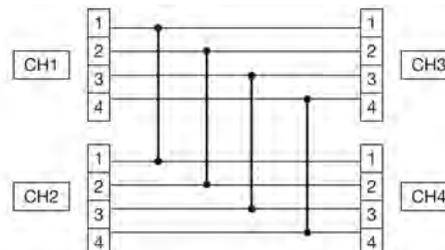
Panel Mount Style



Panel Layout
 Panel Thickness 1.0 to 2.0 [.04 to .08]

No. of Positions	Dimensions		Part Number	
	A	B	Panel Mount Style	Free Hanging Style
3	13.8 [.54]	14.1 [.56]	1473574-3	5-1473574-3
4	15.8 [.62]	16.1 [.63]	1473574-4	5-1473574-4

Note: All part numbers are RoHS Compliant.



Note: The Junction Box with 4 connector interfaces enables 3 outputs by 1 input. 4 interfaces are commoned as per the drawing.