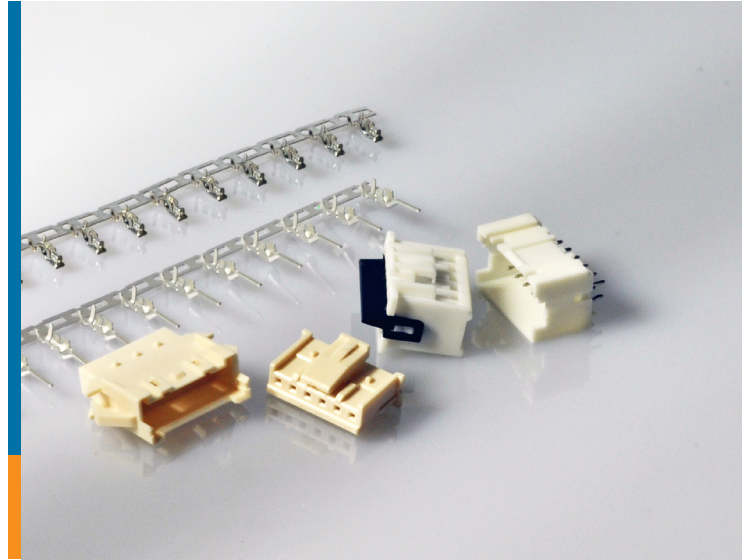


ECONOMY POWER 2.5 CONNECTOR

Single or Dual Row

Wire-to-wire and wire-to-board types



The Economy Power 2.5 (EP 2.5) connector is a new type of single row or dual row crimp connector system. The product line is comprised of new plug housings, contacts and headers. Based on a 2.5mm (0.098") centerline pitch, it is a very compact solution. The newly designed contact retainers provide Terminal Position Assurance (TPA). When inserted, the optional TPA retainers help prevent the contacts from backing out of the housings in applications with random vibration, and they help ensure full contact insertion within the housing. With board space increasingly at a premium, the EP 2.5 connector series offers an ideal interconnection solution for densely packed printed circuit boards.

EP 2.5 connector halves are available from 2 to 40 positions for discrete wires from 0.13 to 0.56mm² (AWG 26 to 20).

Besides single row solutions, EP 2.5 connectors offer 8 to 40 position dual row wire-to-board and wire-to-wire models. The wire-to-board dual row connector system offers vertical and right angle header options. The dual row wire-to-wire connector system offers both free-hanging and panel-mount options.

EP 2.5 housings and contacts were designed to help workers on the shop floor. The low insertion force terminals have an asymmetrical shape. This means they can only be loaded into the housing cavity one way – the right way.

EP 2.5 connectors provide a comprehensive connectivity solution with vertical and right angle headers, optional TPA retainers, wire-to-wire and wire-to-board options and a range of resin materials that include types meeting Glow Wire Test and UL 94 V-O standards.

Additionally, EP 2.5 connectors are intermateable with similar products available in the market, facilitating simple retrofitting.

ECONOMY POWER 2.5

Connector Series

KEY FEATURES

- Housing locking latch
- Polarization tabs
- Asymmetrical terminals can only be loaded into housing one way
- Low insertion force terminals
- Anti-fretting contact lubricant
- Offering includes vertical and right angle headers in single and dual row configurations
- Includes products compliant with Glow Wire test required by IEC/EN 60335-1 5th edition: Household and Similar Appliances-Safety and UL 94 V-0

APPLICATIONS

- Household appliances
- HVAC
- Industrial machinery (control boards)
- Products can be used for global applications where compliance to IEC 60335-1 and UL 94 V-0 is required

SPECIFICATIONS

- Product specification: 108-2418
- Application specification: 114-13315



1969442-6

6 position receptacle housing with latch and tabs

ELECTRICAL

- Voltage rating: 250VAC
- Current rating: 4.5A max. (single row)

MECHANICAL

- Positions: 2 to 15, single row, wire-to-wire
2 to 20, single row, wire-to-board
8 to 40, dual row, all types
- Wire size: 0.13 to 0.56mm² (26 to 20 AWG).
- Centerline pitch: 2.5mm (0.098")
- Operating temperature: -55 to 105°C
- Selectively loaded headers available upon request

MATERIALS

- Housings: UL 94 V-0 rated Nylon
- Contacts: Copper alloy
- Colored housings available upon request
- Glow Wire material and UL 94 V-0 option available

STANDARDS

- UL Recognized (U.S. and Canada) E28476
- TUV approval is being sought



1-1969443-0

10 position TPA retainer

Single Row

Product Image	Type / Style	Flammability	Part Number																			
Single Row Plug Housing																						
	For all types	UL - 94 V0	x-1969442-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1744417-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
Single Row Receptacle Housing																						
	Free Hanging	UL - 94 V0	x-1969588-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5					
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969589-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5					
		Panel Mount	UL - 94 V0	x-1969590-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5				
GWT acc. IEC 60335-1 and UL 94 V0			x-1969591-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5					
TPA																						
	Locking plate	UL - 94 V0	x-1969443-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
Shrouded Header																						
	Vertical w Boss	UL - 94 V0	x-2132230-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1744418-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
		Vertical w/o Boss	UL - 94 V0	x-2132415-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9
GWT acc. IEC 60335-1 and UL 94 V0			x-1744439-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
	Right Angle	UL - 94 V0	x-1744426-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1744446-y	-2	-3	-4	-5	-6	-7	-8	-9	1-0	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	2-0

* Colored housings are available upon request. Please contact TE sales representatives for more information.

Part Number Ordering : Example for X-1969588-Y Housing*

-2 thru -9

Substitute the dash number listed for "Y", therefore a -2 signifies PN 1969588-2

1--0 thru 1--2

Substitute first number for "X" and second number listed for "Y", therefore a 1--2 signifies PN 1-1969588-2

* Follow same numbering scheme throughout for other part numbers listed

Dual Row

Product Image	Type / Style	Flammability	Part Number																	
Dual Row Plug Housing																				
	For all types	UL - 94 V0	x-1969540-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969567-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
Dual Row Receptacle Housing																				
	Free Hanging	UL - 94 V0	x-1969592-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969593-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
	Panel Mount	UL - 94 V0	x-1969594-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969595-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
Dual Row TPA Device																				
	Locking plate	UL - 94 V0	x-1969541-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
Dual Row Vertical Header																				
	With Boss	UL - 94 V0	x-1969543-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969570-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
	Without Boss	UL - 94 V0	x-1969582-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969584-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
Dual Row Right Angle Header																				
	Right Angle	UL - 94 V0	x-1969572-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0
		GWT acc. IEC 60335-1 and UL 94 V0	x-1969574-y	-8	1- -0	1- -2	1- -4	1- -6	1- -8	2- -0	2- -2	2- -4	2- -6	2- -8	3- -0	3- -2	3- -4	3- -6	3- -8	4- -0

* Colored housings are available upon request. Please contact TE sales representatives for more information.

Part Number Ordering : Example for X-1969540-Y Housing*

-2 thru -9

Substitute the dash number listed for "Y", therefore a -2 signifies PN 1969540-2

1--0 thru 1--2

Substitute first number for "X" and second number listed for "Y", therefore a 1--2 signifies PN 1-1969540-2

* Follow same numbering scheme throughout for other part numbers listed

Terminals

	Socket	Tin Plating	22-26 AWG (0.13 to 0.36mm²)	2110989-1
			20-24 AWG (0.20 to 0.56mm²)	1744423-1
	Pin, Lanceless		22-26 AWG (0.13 to 0.36mm²)	2238007-1
			20-24 AWG (0.20 to 0.56mm²)	2238008-1

New Terminal In Development *Preliminary data (subject to change)*

	Low Insertion Force Socket	Tin Plating	22-26 AWG (0.13 to 0.36mm ²)	2232905-1
---	----------------------------	-------------	--	-----------

New socket is expected to reduce insertion force about 38%, from approx. 4.1N to approx. 2.51N. Another version for other wire sizes is also in development.

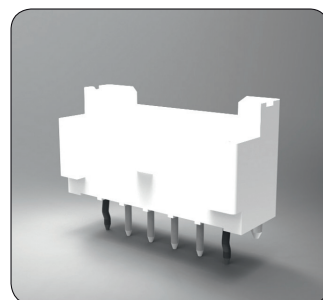
APPLICATION TOOLING

Both the tab and receptacle contact can be applied to wire using the Ocean applicator for automatic and semi-automatic applications. For low volume production and prototype work, a hand-tool will be available to crimp the contacts to wire.

Part Number	Description
1530232-[]	HDI Quick Change Miniature Applicator
1725950-[]	AMP 3/K-40 Press
1725900-[]	AMP 5/K Press
1530232-3	AMP-O-ELECTRIC Model "G" Termination Machine
1530232-2	AMP-O-ELECTRIC Model "K" Termination Machine
1530232-1	Lead Making Machine
354500-[]	AMP-O-ELECTRIC Model "G" Terminating Machine
528324-[]	Komax Gamma 333 PC

APPLICATION TOOLING PN-HAND TOOL

2217074-1 (22-26 AWG)

**2132230-6**

6 position vertical shrouded header with boss

**APPLICATION TOOLING**

Available hand tool

**APPLICATION TOOLING**

OCEAN applicator

For More Information

Visit www.te.com and enter search term “EP”

TE Technical Support Center

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
China:	+86 (0) 400-820-6015
Germany:	+49 (0) 6251-1333-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999

For other country phone numbers, go to te.com/support-center

TE Connectivity, TE, and TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Other products, logos and company names mentioned herein may be trademarks of their respective owners. While TE has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event will TE be liable for any direct, indirect, incidental, special or consequential damages arising from or related to recipient's use of the information. It is the sole responsibility of recipient of this information to verify the results of this information using their engineering and product environment. Recipient assumes any and all risks associated with the use of the information.

www.te.com

© 2015 TE Connectivity Ltd. family of companies. All Rights Reserved.

7-1773461-6 APP CS 06/2015