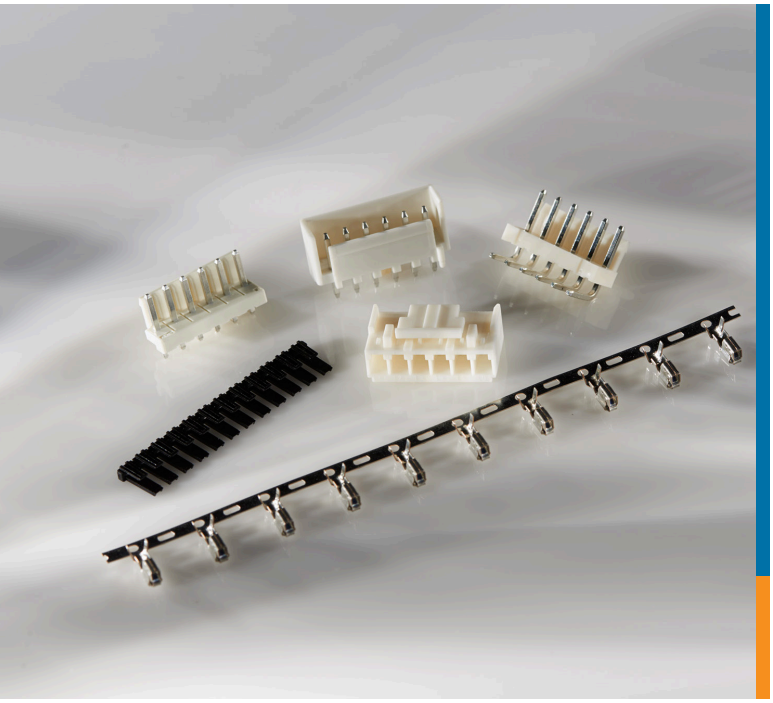

ECONOMY POWER CONNECTOR SERIES

Quick Reference Guide

TE Connectivity's (TE) Economy Power (EP) and Economy Power II (EP II) wire-to-board connectors are widely utilized for power circuit applications that require a large current carrying capacity. The connectors feature a 250 VAC (EP) to 600 VAC (EP II) voltage rating at up to 7.5A (EP) and 11A (EP II), which makes them ideal for a variety of applications such as household appliances, industrial machinery, and lighting. Additionally, terminal position assurance (TPA) devices are available for the EP II connector series. The EP connector family offers housing and header styles and configurations in Glow Wire compatibile material that also meet UL 94 V-0.

PRODUCT DETAILS

KEY FEATURES

- Positive audible latch designed for easier mating and unmating.
- Lanceless contacts are available for 22-18 and 20-16 AWG wire ranges for EP II housings
- Asymmetrical terminals prevent mis-mating
- Polarization tabs help prevent post misalignment
- End to end stackable and intermateable to similar competitive products for retrofit applications
- Selectively loaded headers on the single row offering are available upon request
- Terminal Position Assurance (TPA) devices for EP II
- Various colors available upon request

TECHNICAL FEATURES

- 3.96mm, 5.08mm, and 7.92mm centerline options
- 250 VAC to 600 VAC voltage rating up to 11A
- Wire to board, shrouded and unshrouded header configurations
- 25°C to + 105°C operating temperature
- Meet GWEPT 750°C and UL 94 V0 flamability standards
- UL recognized

APPLICATIONS

- Household appliances
- Industrial machinery (e.g. control boards)
- Lighting
- HVAC
- Commercial & building equipment
- Vending machines & coin changers

ECONOMY POWER PRODUCT OFFERING

Housings

Centerline	Type	Style	Flammability		Part Number										
				Positions	2	3	4	5	6	7	8	9	10	11	12
3.96 [.156]	Economy Power II Receptacle Housing	Single Row	UL 94 V-0	X-2132813-Y	-2										
			UL 94 V-0	X-2132781-Y		-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			GWT acc. IEC 60335-1 UL 94 V-0	X-1744416-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
5.08 [.200]**	Economy Power Receptacle Housing	Single Row	UL 94 V-0	X-1744036-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2

Colored housings are available upon request. For more information, contact TE sales representative.

Headers

Centerline	Type	Style	Flammability		Part Number										
				Positions	2	3	4	5	6	7	8	9	10	11	12
3.96 [.156]	Vertical header without orientation post	Single Row	UL 94 V-0	X-1123723-Y	1--2	1--3	1--4	1--5	1--6	1--7	1--8	1--9	1--0	1--1	
				X-647689-Y											1--2
			GWT acc. IEC 60335-1 and UL 94 V-0	X-1744489-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			UL 94 V-0	X-1744055-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	
7.92 [.312]				X-1123724-Y	1--2	1--3	1--4	1--5	1--6						
5.08 [.200]**				X-1744037-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
3.96 [.156]				X-1318300-Y	1--2	1--3	1--4	1--5	1--6	1--7	1--8	1--9	1--0	1--1	
7.92 [.312]				X-1318301-Y	1--2	1--3	1--4	1--5							
3.96 [.156]	Vertical header With orientation post			X-1744057-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			GWT acc. IEC 60335-1 and UL 94 V-0	X-1744429-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
	Shrouded header		UL 94 V-0	X-1877285-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			GWT acc. IEC 60335-1 and UL 94 V-2	X-1744427-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
	Right angle header without orientation post		UL 94 V-0	X-647676-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			GWT acc. IEC 60335-1 and UL 94 V-0	X-1744428-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
			UL 94 V-0	X-1744056-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2
5.08 [.200]**				X-1744048-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	1--2

**Mating housing P/N X-1744036-Y and contacts 1123721-1 (Phos Bronze - pre tin) 1123721-2 Brass - pre tin).
Selectively loaded headers available upon request.

EP II Terminal Position Assurance (TPA) - Optional

Centerline	Type	Style	Flammability		Part Number										
				Positions	2	3	4	5	6	7	8	9	10	11	12
3.96 [.156]	Terminal Position Assurance (TPA)	Contact Locking Plate	UL 94 V-0 Breakaway	X-2132782-Y											1--2
			UL 94 V-O Discrete	X-1744544-Y	-2	-3	-4	-5	-6	-7	-8	-9	1--0	1--1	

Part Number Ordering: Example for X-1744416-Y Housing

-2 thru -9: Substitute dash number listed for "Y", therefore a -2 signifies PN 174416-2

1--0 thru 1--2: Substitute first number for "X" and second number listed for "Y", therefore 1--2 signifes PN 1-1744416-2: Follow same numbering scheme throughout for other part numbers listed

Contact

Series	Type	Style	Part Number
Economy Power II	Phos Bronze Pre-Tin Contact 18-22 AWG (0.89-0.30mm^2)	Receptacle Contact	1744144-1
Economy Power II	Phos Bronze Pre-Tin Contact 16-20 AWG (1.4-0.5mm^2)	Receptacle Contact	1744201-1
Economy Power	Brass Pre-Tin Contact 22-18 AWG (.34 - .75mm^2)	Receptacle Contact	1123721-2

APPLICATION TOOLING

Part Number	Description
90720-1	Straight Action Hand Too
91337-1	PRO-CRIMPER III Hand Tool Assembly
2119118-1	
354500-[ ]	AMP-O-LECTRIC Model "G" Terminating Machine
1725950-[ ]	AMP 3/K-40 Press
528324-[ ]	Komax Gamma 333 PC
1385286-[ ]	Side Feed HDM Applicator
91579-1	Side

DESIGN-IN QUESTIONS

1. **What are the current and voltage requirements for your application?**

   The Economy Power connector series has a current rating of 7.5A (EP) 11A (EP II) per line with the on #16 AWG wire and is rated for 250 VAC (EP) and 600 VAC (EP II).

2. **Are Economy Power II connectors available in various colors and position configurations?**

   Yes. All of the configurations are available in multiple colors. Additionally, EP II offers options of 2 to 12 position single-row wire-to-board.

3. **Are Economy Power connectors Glow Wire test compliant?**

   Yes. Economy Power connector series products for both EP and EP II are available in a GWT, UL 94 V-0, NF 750°C option that conforms to the flammability requirements of IEC 60335-1 for unattended appliances with connections carrying current of greater than .2 A.

4. **Can TE's EP II connectors be used as drop in replacements for competitor products?**

   Yes. The EP II connectors can be used to replace similar competitive products for retrofit applications.

5. **What are the wire size requirements?**

   The EP II connector system can accommodate wires ranging from 16 to 22 AWG (1.4 mm^2 to 0.3 mm^2).

6. **How can TE's EP II connectors avoid contact back out?**

   The EP product family offers an optional TPA device that helps to ensure the contacts are fully seated in the housing and remain that way. This helps to avoid downtime and costly service calls when equipment won't work properly due to a contact that has backed out.

7. **Do I need new tooling to change from EP to EP II housings?**

   No. The same tooling is used for EP and EP II.

ADDITIONAL RESOURCES

TE Connectivity 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
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

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