

VAL-U-LOK CONNECTOR SYSTEM

PRODUCT DESCRIPTION

The VAL-U-LOK connector system offers wire-to-wire and wire-to-board connections with contacts on a 4.20 mm [0.165] in centerline and high current product offering available up to 13 Amps per line. Plug and receptacle housings allow wire-to-wire and wire-to-panel configurations and header assemblies offer wire-to-board connections in vertical and right angle configurations. VAL-U-LOK connector system configurations are available in dual row 2-24 position and 3-5 position single row. Vertical headers are available with or without polarization pegs and with or without drain holes and offer a blind mate version. The right angle headers are available with or without screw mount flanges. Crimp, snap-in pin and socket contacts are used to terminate 26-16 [0.12-1.2 mm²] AWG wire with insulation diameters up to 3.10 mm [0.122 in].

INDUSTRIES

- Small home appliances
- Major home appliances
- Indoor / outdoor lighting
- Security systems
- Industrial controls
- HVAC system controls
- Storage and networking systems

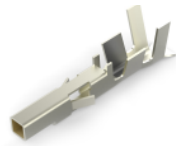
FEATURES AND BENEFITS

- Discrete wire interconnect available in 2-24 position
- Wire-to-wire and wire-to-board pin and socket connector system
- Contacts are on 4.20 mm centerline spacing
- Contacts are available in strip form or loose piece
- Mate first/break last feature on 3 position single row receptacle housings
- Vertical and right-angle pin headers
- Housings offered in glow wire compatible material
- UL & CSA approved

VAL-U-LOK CONNECTOR SYSTEM



Pin



Socket

The VAL-U-LOK pins and sockets are available in phosphor bronze and brass, with either pre-tin or gold plating. Plug housings accept the pin contacts and the receptacle housings accept the socket contacts.

CONTACTS

Wire Range AWG	Insulation Range	Material & Finish	Pin		Socket		Applicator Part No.	Hand Tool
			Strip Form	Loose Piece	Strip Form	Loose Piece		
26-22	.047-.069 / [1.2-1.75]	Brass, Pre-Tin	794957-1	1586316-1	794958-1	1586317-1	1385448-x	91387-1
26-22	.047-.069 / [1.2-1.75]	Phos. Brz., Pre-tin	794957-3	1586316-3	794958-3	1586317-3	1385448-x	91387-1
26-22	.047-.069 / [1.2-1.75]	Brass, Gold	794957-2	1586316-2	794928-2	1586319-2	1385448-x	91387-1
26-22	.047-.069 / [1.2-1.75]	Phos. Brz., Gold	794957-4	1586316-4	794958-4	1586317-4	1385448-x	91387-1
22-18	.060-.122 / [1.50-3.10]	Brass, Pre-Tin	794955-1	1586314-1	794956-1	1586315-1	1852668-x	91388-1
22-18	.060-.122 / [1.50-3.10]	Phos. Brz., Pre-tin	794955-3	1586314-3	794956-3	1586315-3	1852668-x	91388-1
22-18	.060-.122 / [1.50-3.10]	Brass, Gold	794955-2	1586314-2	794956-2	1586315-2	1852668-x	91388-1
22-18	.060-.122 / [1.50-3.10]	Phos. Brz., Gold	794955-4	1586314-4	794956-4	1586315-4	1852668-x	91388-1
16	.071-.122 / [1.8-3.10]	Brass, Pre-Tin	1586054-1	1586840-1	1586055-1	1586841-1	1852294-x	1976444-1
16	.071-.122 / [1.8-3.10]	Phos. Brz., Pre-tin	1586054-3	1586840-3	1586055-3	1586841-2	1852294-x	1976444-1
16	.071-.122 / [1.8-3.10]	Brass, Gold	1586054-2	1586840-2	1586055-2	1586841-3	1852294-x	1976444-1
16	.071-.122 / [1.8-3.10]	Phos. Brz., Gold	1586054-4	1586840-4	1586055-4	1586841-4	1852294-x	1976444-1

VAL-U-LOK CONNECTOR SYSTEM



Free-Hanging Plug



Panel Mount Plug

Plug housings for the VAL-U-LOK product line are available in panel mount or freehanging versions. The receptacles are easy to mate and un-mate to the various plug housings and headers. They also feature a positive latch design.

HOUSINGS

No. of Positions	Single Row	Dual Row	UL 94 V-2			UL94 V-0		
			Panel Mount	Free-Hanging	Receptacle	Panel Mount	Free-Hanging	Receptacle
2	—	x	794953-2	1586000-2	794954-2	1586018-2	1586017-2	1586019-2
3	x	—	1586101-3	1586103-3	1586105-3	1586102-3	1586104-3	1586106-3
4	x	—	1586022-4	1586024-4	1586026-4	1586023-4	1586024-4	1586027-4
4	-	x	794953-4	1586000-4	794954-4	1586018-4	1586017-4	1586019-4
5	x	—	1586022-5	1586024-5	1586026-5	1586023-5	1586025-5	1586027-5
6	—	x	794953-6	1586000-6	794954-6	1586018-6	1586017-6	1586019-6
8	—	x	794953-8	1586000-8	794954-8	1586018-8	1586017-8	1586019-8
10	—	x	1-794953-0	1-1586000-0	1-794954-0	1-1586018-0	1-1586017-0	1-1586019-0
12	—	x	1-794953-2	1-1586000-2	1-794954-2	1-1586018-2	1-1586017-2	1-1586019-2
14	—	x	1-794953-4	1-1586000-4	1-794954-4	1-1586018-4	1-1586017-4	1-1586019-4
16	—	x	1-794953-6	1-1586000-6	1-794954-6	1-1586018-6	1-1586017-6	1-1586019-6
18	—	x	1-794953-8	1-1586000-8	1-794954-8	1-1586018-8	1-1586017-8	1-1586019-8
20	—	x	2-794953-0	2-1586000-0	2-794954-0	2-1586018-0	2-1586017-0	2-1586019-0
22	—	x	2-794953-2	2-1586000-2	2-794954-2	2-1586018-2	2-1586017-2	2-1586019-2
24	—	x	2-794953-4	2-1586000-4	2-794954-4	2-1586018-4	2-1586017-4	2-1586019-4

RECEPTACLE & PLUG HOUSINGS (DUAL ROW) GLOW WIRE

No. of Positions	Receptacles	Plugs	
		Free-Hanging	Panel Mount
2	1586765-2	1586862-2	1586861-2
4	1586765-4	1586862-4	1586861-4
6	1586765-6	1586862-6	1586861-6
8	1586765-8	1586862-8	1586861-8
10	1-1586765-0	1-1586862-0	1-1586861-0
12	1-1586765-2	1-1586862-2	1-1586861-2
14	1-1586765-4	1-1586862-4	1-1586861-4
16	1-1586765-6	1-1586862-6	1-1586861-6
18	1-1586765-8	1-1586862-8	1-1586861-8
20	2-1586765-0	2-1586862-0	2-1586861-0
22	2-1586765-2	2-1586862-2	2-1586861-2
24	2-1586765-4	2-1586862-4	2-1586861-4



First Mate/Last Break Receptacle Housing

VAL-U-LOK CONNECTOR SYSTEM

COLORED HOUSINGS

Color	No. of Positions	UL 94 V-2 Housings			UL 94 V-0 Housings		
		Panel Mount Plug	Free-Hanging Plug	Receptacle Housing	Panel Mount Plug	Free-Hanging Plug	Receptacle Housing
Black	2-24	x-2029088-x	x-2029027-x	x-1586075-x	x-2029035-x	x-2029028-x	x-2029029-x
Red	4-24	x-2029089-x	x-2029090-x	x-2029091-x	x-2029092-x	x-2029093-x	x-2029094-x
Blue	6-24	x-2029095-x	x-2029096-x	x-12029097-x	x-2029098-x	x-2029099-x	x-2029100-x

PIN HEADERS

No. of Positions	UL 94 V-2				UL 94 V-0			
	Vertical		Right Angle		Vertical		Right Angle	
	Without Pegs	With Pegs	Without Pegs	Screw Mount	Without Pegs	With Pegs	Without Pegs	Screw Mount
2	1586037-2	1586039-2	1586041-2	1586043-2	1586038-2	1586040-2	1586042-2	1586044-2
4	1586037-4	1586039-4	1586041-4	1586043-4	1586038-4	1586040-4	1586042-4	1586044-4
6	1586037-6	1586039-6	1586041-6	1586043-6	1586038-6	1586040-6	1586042-6	1586044-6
8	1586037-8	1586039-8	1586041-8	1586043-8	1586038-8	1586040-8	1586042-8	1586044-8
10	1-1586037-0	1-1586039-0	1-1586041-0	1-1586043-0	1-1586038-0	1-1586040-0	1-1586042-0	1-1586044-0
12	1-1586037-2	1-1586039-2	1-1586041-2	1-1586043-2	1-1586038-2	1-1586040-2	1-1586042-2	1-1586044-2
14	1-1586037-4	1-1586039-4	1-1586041-4	1-1586043-4	1-1586038-4	1-1586040-4	1-1586042-4	1-1586044-4
16	1-1586037-6	1-1586039-6	1-1586041-6	1-1586043-6	1-1586038-6	1-1586040-6	1-1586042-6	1-1586044-6
18	1-1586037-8	1-1586039-8	1-1586041-8	1-1586043-8	1-1586038-8	1-1586040-8	1-1586042-8	1-1586044-8
20	2-1586037-0	2-1586039-0	2-1586041-0	2-1586043-0	2-1586038-0	2-1586040-0	2-1586042-0	2-1586044-0
22	2-1586037-2	2-1586039-2	2-1586041-2	2-1586043-2	2-1586038-2	2-1586040-2	2-1586042-2	2-1586044-2
24	2-1586037-4	2-1586039-4	2-1586041-4	2-1586043-4	2-1586038-4	2-1586040-4	2-1586042-4	2-1586044-4

BLINDMATE HEADERS

No. of Positions	UL 94 V-2		UL 94 V-0	
	With Drain Holes	Without Drain Holes	With Drain holes	Without Drain Holes
2	1586585-2	1586586-2	1586587-2	1586588-2
4	1586585-4	1586586-4	1586587-4	1586588-4
6	1586585-6	1586586-6	1586587-6	1586588-6
8	1586585-8	1586586-8	1586587-8	1586588-8
10	1-1586585-0	1-1586586-0	1-1586587-0	1-1586588-0
12	1-1586585-2	1-1586586-2	1-1586587-2	1-1586588-2
14	1-1586585-4	1-1586586-4	1-1586587-4	1-1586588-4
16	1-1586585-6	1-1586586-6	1-1586587-6	1-1586588-6
18	1-1586585-8	1-1586586-8	1-1586587-8	1-1586588-8
20	2-1586585-0	2-1586586-0	2-1586587-0	2-1586588-0
22	2-1586585-2	2-1586586-2	2-1586587-2	2-1586588-2
24	2-1586585-4	2-1586586-4	2-1586587-4	2-1586588-4

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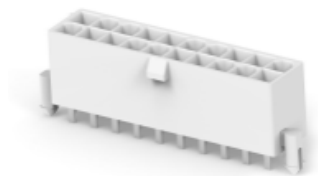
SINGLE ROW VERTICAL HEADERS

No. of Positions	UL 94 V2 Housings		UL 94 V0 Housings	
	w/ drain holes	w/out drain holes	w/ drain holes	w/out drain holes
3	2029054-3	2029058-3	2029056-3	2029167-3
4	2029054-4	2029058-4	2029056-4	2029167-4
5	2029054-5	2029058-5	2029056-5	2029167-5

MATING RECEPTACLE HOUSINGS

No. of Positions	UL 94 V2 housings	UL 94 V0 housings
3	1586105-3	1586106-3
4	1586026-4	1586027-4
5	1586026-5	1586027-5

VAL-U-LOK headers are available in both right angle and vertical mount for added flexibility in your board design. Vertical headers are available with or without mounting pegs.



HEADERS (DUAL ROW) GLOW WIRE

No. of Positions	Vertical w/out pegs; w/ drain holes	Vertical w/ pegs; w/ drain holes	Vertical w/ pegs; w/out drain holes	Right Angle w/out pegs
2	1586768-2	2029059-2	2029265-2	1586863-2
4	1586768-4	2029059-4	2029265-4	1586863-4
6	1586768-6	2029059-6	2029265-6	1586863-6
8	1586768-8	2029059-8	2029265-8	1586863-8
10	1-1586768-0	1-2029059-0	1-2029265-0	1-1586863-0
12	1-1586768-2	1-2029059-2	1-2029265-2	1-1586863-2
14	1-1586768-4	1-2029059-4	1-2029265-4	1-1586863-4
16	1-1586768-6	1-2029059-6	1-2029265-6	1-1586863-6
18	1-1586768-8	1-2029059-8	1-2029265-8	1-1586863-8
20	2-1586768-0	2-2029059-0	2-2029265-0	2-1586863-0
22	2-1586768-2	2-2029059-2	2-2029265-2	2-1586863-2
24	2-1586768-4	2-2029059-4	2-2029265-4	2-1586863-4

VAL-U-LOK CONNECTOR SYSTEM

VAL-U-LOK right angle headers are available with or without screw mount. Blind mate headers are also available.

SINGLE ROW RIGHT ANGLE HEADERS

No. of Positions	UL 94 V2 Housings		UL 94 V0 Housings	
	With Pegs	With Flanges	With Pegs	With Flanges
3	2029150-3	2029152-3	2029151-3	2029153-3
4	2029150-4	2029152-4	2029151-4	2029153-4
5	2029150-5	2029152-5	2029151-5	2029153-5

QUESTIONS THAT WILL HELP YOU BETTER SELECT THE PRODUCT THAT YOU NEED:

What are the current and voltage requirements for your application?

The VAL-U-LOK connector system has a maximum current rating of 9 Amps per line and is rated for 600 VAC.

What are the wire type and size requirements?

The VAL-U-LOK connector system contacts are approved for use with 3 different wire ranges from 26 AWG [0.12] to 16 AWG [1.20] wire with a maximum insulation diameter of 3.10 [0.122].

What are the number of positions?

The VAL-U-LOK connector system is available in wire-to-board and wire-to-wire, free-hanging or panel mount options in 2-24 position dual row and 3-5 position singlerow configurations.

What are the operating temperature requirements?

The VAL-U-LOK connector system has a maximum operating temperature of 105°C. For more information regarding operating temperatures refer to Product Specification 108-2112.

Do you need to differentiate this connector from other connectors in the application?

In addition to natural, the VAL-U-LOK connector system offers red, black and blue colored housings for ease of connector identification during manufacturing and assembly.

What is the benefit of choosing headers with a polarization peg?

The VAL-U-LOK connector system offers headers with or without polarization pegs. The purpose of this feature is to polarize the headers to the PCB so the header cannot be placed on the PCB in the wrong orientation. For more information regarding PCB layout please refer to the product drawing.

What is the benefit of choosing glow wire housings?

The VAL-U-LOK connector system offers glow wire housings that allow manufacturers of home appliances sold into the European market to comply with the IEC/EN 60335-1 4th edition standard.

Part numbers in this brochure are RoHS Compliant*, unless marked otherwise.

*as defined www.te.com/leadfree

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