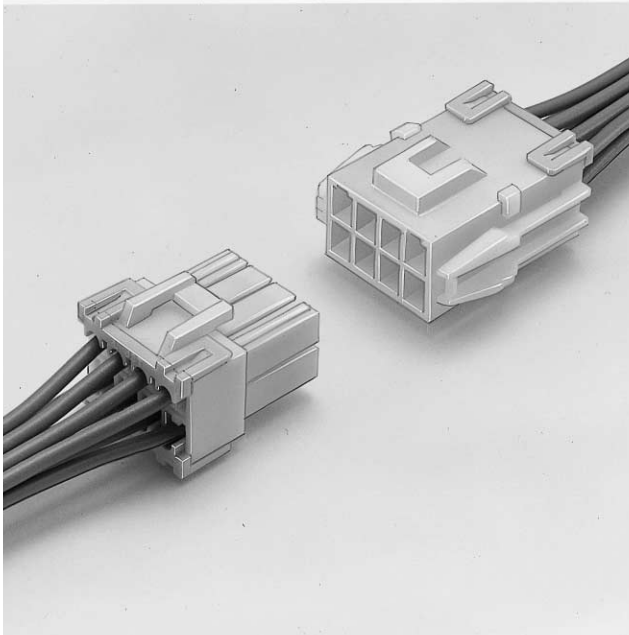


# HL CONNECTOR

Disconnectable Crimp style Wire-to-wire connectors



## Features

### • Low insertion force contact

The low insertion force contacts reduce surface finish wear and reduce the effects of stress relaxation.

### • Housing lance

The resilient plastic housing lances secure the contacts in the housings. Since the lances are in the housings rather than on the contacts, they are not affected by handling, and allow the contacts to be lightly inserted without undue force. This establishes a feeling of uniform insertion and a noticeable change in that feeling when insertion is completed.

### • Inner-housing lock

This inner-housing lock secures the plug to the receptacle and prevents accidental disconnection. The lock is protected and is not affected by external forces that might result from the routing of wires.

### • Secondary retainers

The secondary retainers enhance safety in case of partial insertion or accidental release of the contact. Even if a contact is inserted incompletely, the retainer guides the contact to the proper position and securely locks it in place.

### • Panel lock construction

Our unique compact panel lock is designed to prevent tangling with wires and accidental breakage because of handling.

## Specifications

- Current rating: 7A AC, DC max.
- Voltage rating: 300V AC, DC max.
- Temperature range: -25°C to +90°C  
(including temperature rise in applying electrical current)
- Contact resistance: Initial value/7m Ω max.  
After environmental testing/10m Ω max.
- Insulation resistance: 1,000M Ω min.
- Withstanding voltage: 1,500V AC/minute
- Applicable wire: AWG #22 to #18  
0.3 to 0.75mm<sup>2</sup>

• Applicable panel thickness: 0.7 to 2.0mm (.028" to .079")

\* Contact JST if Lead-Free product is required.

\* Temperature Range:

The aforementioned temperature range of this connector is described in JST Standard Product Specification.

Maximum temperature registered in UL is 105°C.

\* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.

\* Contact JST for details.

*Note: The current rating varies depending on the number of circuits and the wire size used in each connector. The table below lists the current rating as a function of the number of circuits and wire size.*

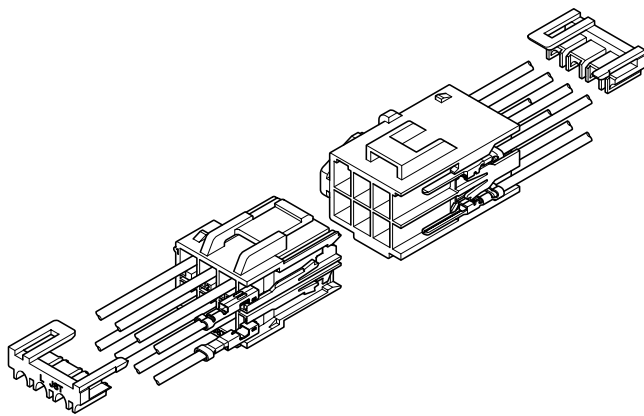
Current unit: A

Circuits	Wire size (AWG)		
	#18	#20	#22
2	7	5	4
3	6	4	4
4	6	4	4
8	4	3	3
9	4	3	3
12	3	2	2

## Standards

Recognized E60389 Certified LR20812 R9551072

802 JST



# HL CONNECTOR

## Contact

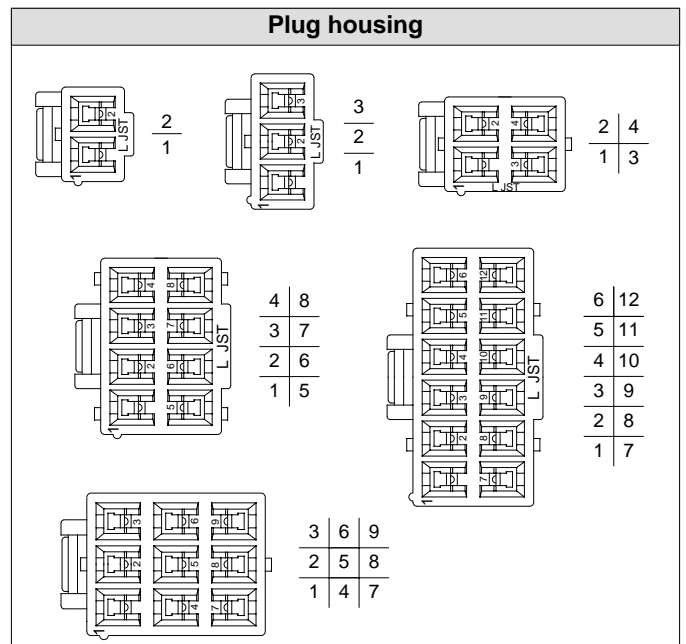
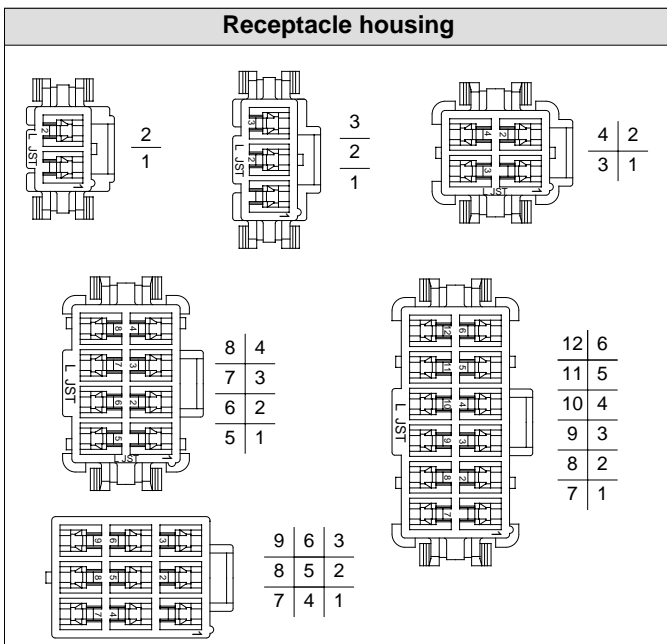
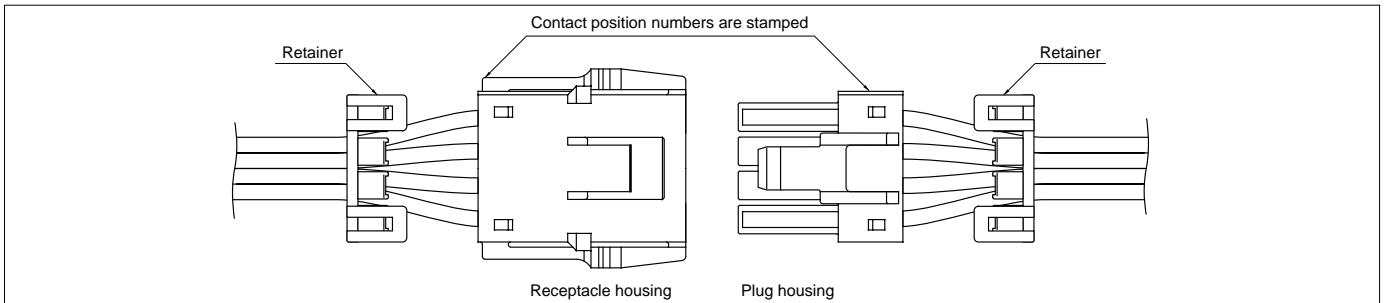


Model No.		Applicable wire			Q'ty / reel
Pin contact	Socket contact	mm <sup>2</sup>	AWG #	Insulation O.D. mm(in.)	
<b>SSM-21T-P1.4</b>	<b>SSF-21T-P1.4</b>	0.3 to 0.75	22 to 18	1.5 to 2.2 (.059 to .087)	6,000

**Material and Finish**  
Phosphor bronze, tin-plated

Note: Contact JST for special products.

## Contact position location numbers



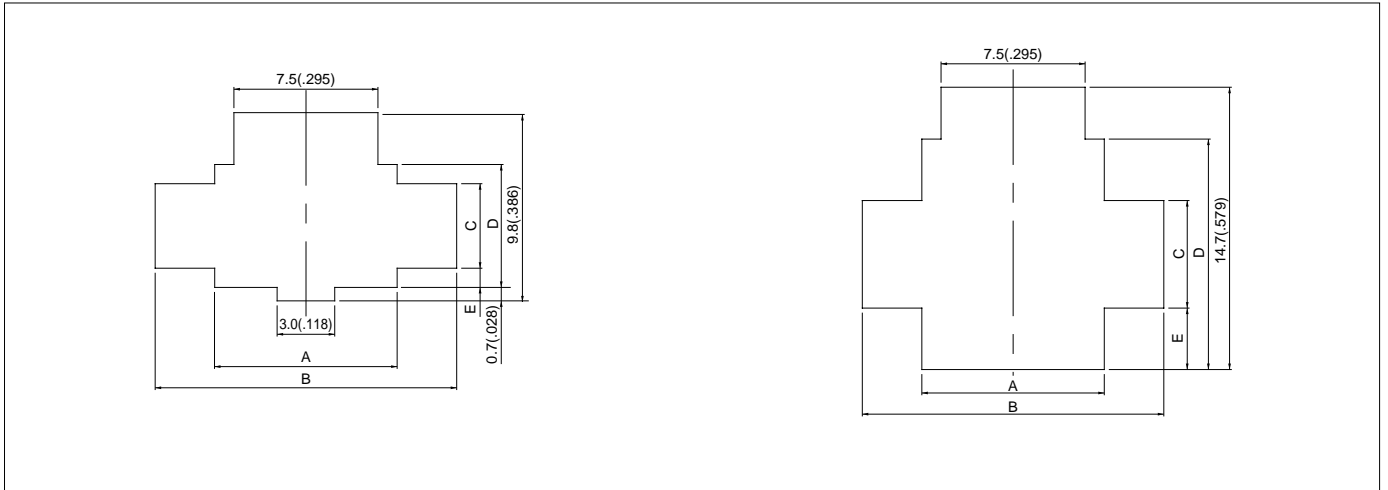
# HL CONNECTOR

## Housing

Material: Housing...Nylon 66, UL94V-0, white  
Retainer...Glass-filled nylon 66, UL94V-0, ivory

Circuits	Voltage rating	Current rating	Receptacle housing(for pin contact)	Q'ty / bag	Plug housing(for socket contact)	Q'ty / bag	Retainer	Q'ty / bag
2	300V	7A	<b>HLR-02V</b> 	1,000	<b>HLP-02V</b> 	1,000	<b>HLS-02V</b> (commonly used for 2-circuit housing and 4-circuit housing) 	1,000
			<b>HLR-02VF</b> 					
3	300V	6A	<b>HLR-03V</b> 	500	<b>HLP-03V</b> 	1,000	<b>HLS-03V</b> 	1,000
			<b>HLR-03VF</b> 					
4	300V	6A	<b>HLR-04V</b> 	500	<b>HLP-04V</b> 	500	<b>HLS-02V</b> (commonly used for 2-circuit housing and 4-circuit housing) 	1,000
			<b>HLR-04VF</b> 					
8	300V	4A	<b>HLR-08V</b> 	500	<b>HLP-08V</b> 	500	<b>HLS-08V</b> 	1,000
			<b>HLR-08VF</b> 					
9	300V	4A	<b>HLR-09VF</b> 	500	<b>HLP-09V</b> 	500	-	-
			<b>HLR-09V</b> 					
12	300V	3A	<b>HLR-12V</b> 	500	<b>HLP-12V</b> 	500	<b>HLS-12V</b> 	1,000
			<b>HLR-12VF</b> 					

## Panel layout

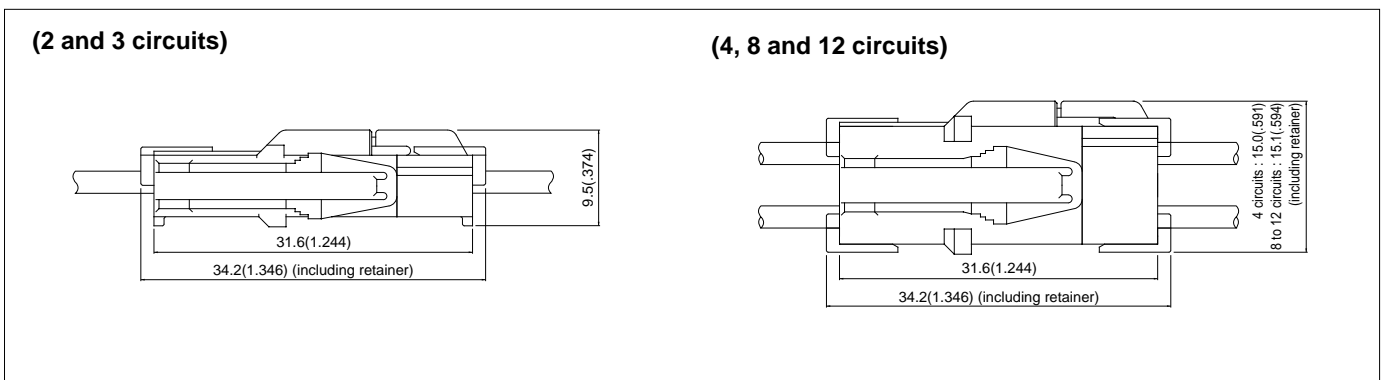


Circuits	Receptacle housing	Panel hole shape	Panel hole dimensions mm(in.)					Applicable panel thickness mm(in.)
			A $\pm 0.13$ (.005)	B $\pm 0.13$ (.005)	C $\pm 0.1$ (.004)	D $\pm 0.13$ (.005)	E $\pm 0.1$ (.004)	
2	<b>HLR-02V</b>	I	9.5(.374)	15.7(.618)	4.4(.173)	6.4(.252)	1.0(.039)	0.7 to 2.0 (.028 to .079)
3	<b>HLR-03V</b>	I	13.5(.531)	19.7(.776)	4.4(.173)	6.4(.252)	1.0(.039)	
4	<b>HLR-04V</b>	II	9.5(.374)	15.7(.618)	5.6(.220)	12.0(.472)	3.2(.126)	
8	<b>HLR-08V</b>	II	17.4(.685)	23.6(.929)	5.6(.220)	12.0(.472)	3.2(.126)	
12	<b>HLR-12V</b>	II	25.3(.996)	31.6(1.244)	5.6(.220)	12.0(.472)	3.2(.126)	

**Note:**

1. Punch holes in the panel according to the sketch and table shown above. Burrs must be removed.
2. The strength of the panel must be considered when punching two or more holes.
3. The connector must be inserted from the same side as the hole is punched.

## Assembly layout



## Applicator for the semi-automatic press AP-K2N

Contact	Crimp applicator MKS-L		Compact crimp applicator MKS-LS		Strip-crimp applicator MKS-SC
	with safety cover	without safety cover	with safety cover	without safety cover	with safety cover
<b>SSF-21T-P1.4</b>	APLMK SSF/M21-14	APLNC SSF/M21-14	-	-	-
<b>SSM-21T-P1.4</b>	APLMK SSF/M21-14	APLNC SSF/M21-14	-	-	-