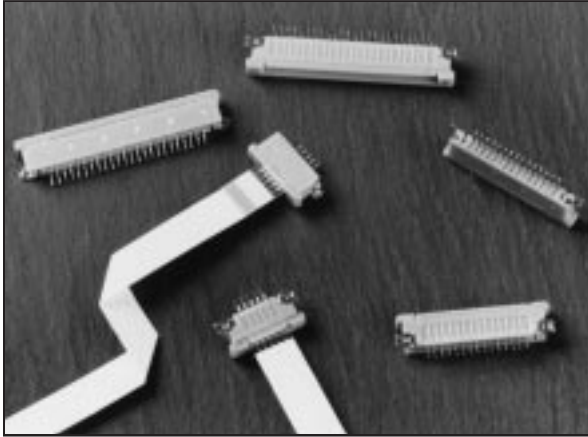


# IL-402/402R SERIES CONNECTORS

1.0mm (.039") Contact Spacing, ZIF Type SMT Connectors for FPC/FFC

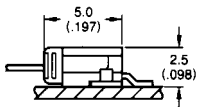


## FEATURES

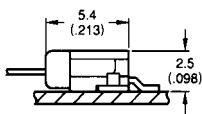
- SMT configuration
- Low profile of 2.5mm (0.98")
- Easy termination of cable utilizing a slide actuator
- Zero Insertion Force (ZIF) cable termination
- Hold down tabs prevent floating up of the connector during soldering and secure the connector on PCB
- Optional embossed tape packaging for automatic mounting

Connector Profile (Ref.)

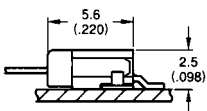
**IL-402** 4 to 20 Contacts



21 to 30 Contacts



**IL-402R**



The IL-402/402R Series has been developed to meet the demands of increased density of components in the surface mount environment. This 1.0mm (.039") pitch, low profile connector for Flexible Printed Circuit (FPC) and Flexible Flat Cable (FFC) has a mounting height of 2.5mm (.098"). Its construction is compatible with automatic mounting equipment when ordered on embossed tape. Zero Insertion Force cable termination allows for simplified operation.

## GENERAL SPECIFICATIONS

Number of Contacts	IL-402/4 to 30, IL-402R/4, 7, 8, 10 to 12, 14 to 18, 20, 23
Contact Spacing	1.0mm (.039"), Single Row
Current Rating	0.5 Amps
Operating Voltage	200 VAC, VDC
Dielectric Withstanding Voltage	500 VAC r.m.s. (one minute)
Insulation Resistance	1000 megohms min.
Contact Resistance	20 milliohms max.
Operating Temperature	-40°C +85°C
Applicable FPC	1.0mm (.039") Center (IL-402) 0.3mm <sup>+0.05</sup> / <sub>-0.02</sub> mm (.012" <sup>+0.002</sup> / <sub>-0.001</sub> ) Thick (IL-402R) 0.3mm ± 0.05mm (.012" ± .002") Thick

## MATERIALS AND FINISHES

Description	Materials/Finishes
Contact	Phosphor Bronze/Tin Plated
Insulator	Glass-filled PPS (UL94V-0, Light Gray)
Hold-down Tab	Phosphor Bronze/Tin Plated
Slider	Glass filled PPS

## ORDERING INFORMATION

IL - 402 \* - \*\* S - S 1 L - SA - E\*\*\*\*

Series \_\_\_\_\_  
 IL-402 – Bottom Contact Mating  
 IL-402R – Top Contact Mating

No. of Contacts \_\_\_\_\_

Contact Type \_\_\_\_\_  
 S – Socket

Contact Arrangement \_\_\_\_\_  
 S – Single Row

Contact Pitch \_\_\_\_\_  
 1 – 1.0mm (.039")

Termination \_\_\_\_\_  
 L – Right Angle

Modification Code \_\_\_\_\_

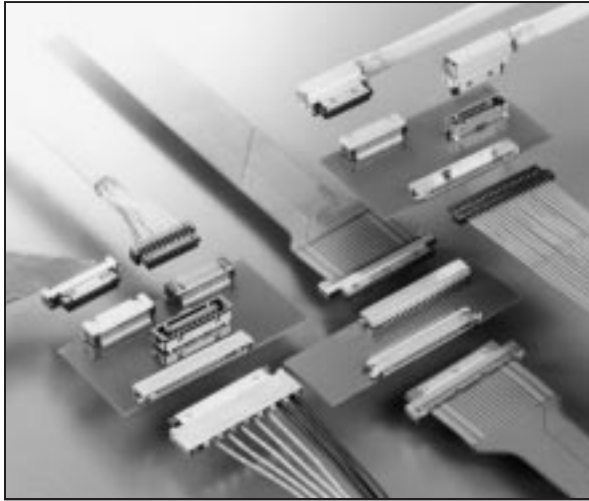
Embossed Tape Packaging \_\_\_\_\_  
 E1000 – 1000 pcs. per reel (4 to 24 contacts)  
 E1500 – 1500 pcs. per reel. (25 to 30 contacts)

Dimensions and specifications subject to change without notice.



# FI SERIES CONNECTORS

## 1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors



### FEATURES

- Socket housing available with or without a shield
- Flex connector available
- Pin header available on embossed tape for automatic SMT mounting
- Dependable pin-type double contacts (post and box)
- Friction lock housing enables secure connections

Refer to Ordering Information for Connector Profiles.



FI Series connectors are designed for board-to-cable applications. High-density 1.25mm (.049") contact spacing SMT single and double row shielded and unshielded versions available. They are used in notebook PCs, VCR's, mobile phones, and other consumer applications, where reduced space is a requirement.

### GENERAL SPECIFICATIONS

Number of Contacts	Single row: 2-6, 8, 10, 15, 20, 25, 30 Double row: 5-21 (every 2 pins), 31, 41
Contact Spacing	1.25mm (.049")
Current Rating	1 Amp
Dielectric Withstanding Voltage	500 VAC r.m.s. (one minute)
Insulation Resistance	100 megohms min.
Contact Resistance	40 milliohms max.
Operating Temperature	-40°C to +80°C
Applicable Wire Size	Standard #28 to #32 AWG
Applicable FPC	.625mm (.025") Center .14mm (.006") Thick

### MATERIALS AND FINISHES

#### • Pin Header

Description	Materials/Finishes
Insulator	Single Row: Glass-filled PPS (UL94V-0, Black) Double Row: Glass-filled LCP (UL94V-0, Beige)
Contact	Copper Alloy Connecting area: Gold 0.1 (.000004") min. over Nickel Terminal area: Tin over Nickel Plating
Shell	Copper Alloy/Tin Plating
Hold-down	Copper Alloy/Tin over Nickel

#### • FPC

Insulator	Glass-filled PPS (UL94V-0, Black)
Contact	Copper Alloy Connecting area: Gold 0.1 (.000004") min. over Nickel FPC area: Tin over Nickel Plating
Shell	Copper Alloy/Tin Plating
Slider	Glass-filled PPS (UL94V-0, Brown)

#### • Socket Housing

Housing	Glass-filled PPS (UL94V-0, Black)
Socket Contact	Phosphor Bronze/Gold over Nickel

Consult JAE for other available sizes.  
Dimensions and specifications subject to change without notice.