

## LATCH-N-LOK™

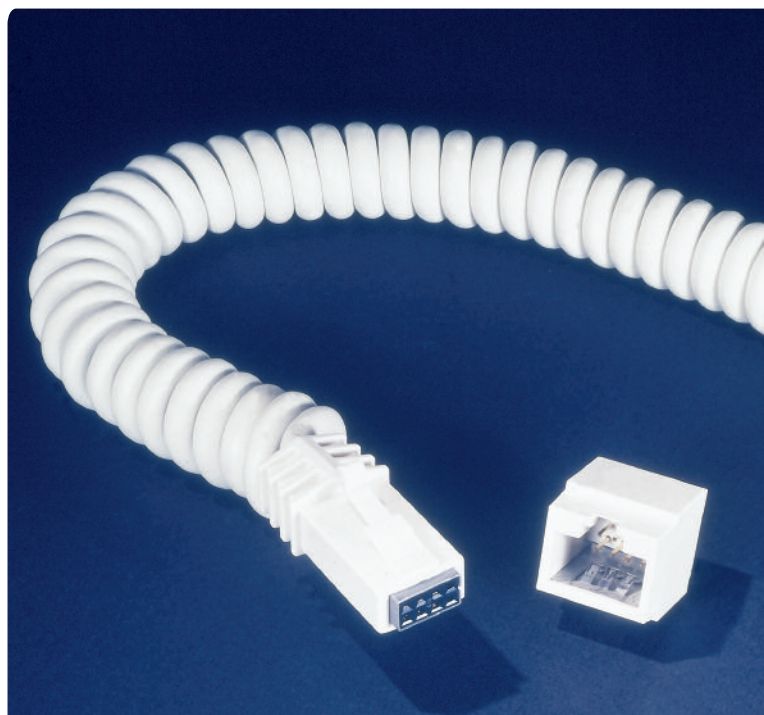
Shielded, Latching I/O Connector System

User-friendly Plugging; Rugged Mechanical and Electrical Performance

### DESCRIPTION

Latch-N-Lok™ is a versatile cable-to-equipment connector interface designed for end user convenience and durability.

The Latch-N-Lok™ family includes PCB receptacles and cable plug kits to connect signals or power. The connection system provides integral shielding and grounding for controlling EMI/ESD.



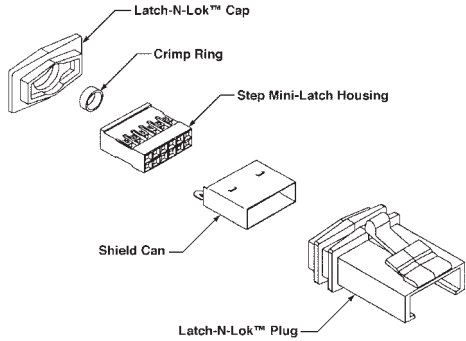
### FEATURES & BENEFITS

- Quick connect system provides positive latching with an audible “click.”
- Supports high speed, serial data transmission
- High reliability design features “FCI Mini PV™” receptacle contacts mating to phosphor bronze .025”sq pin contacts in single and double row 0.100” pitch configurations.
- Polarized housings prevent mis-mating; Keying options prevent the mating of incorrect cables.
- Choice of four popular colors: Off-white, Silver Gray, Pebble Gray and Black.
- Easy-to-assemble cable kits provide an over-molded look without requiring an investment in custom mold tooling
- Cable connectors accommodate a wide variety of cable diameters and wires ranging from 20AWG to 32 AWG
- Connector sizes range from 4 to 20 positions
- Lead-free, RoHS compatible products satisfy environmental regulations.

### TARGET MARKETS / APPLICATIONS

- POS Equipment
- Medical Instrumentation
- Test and Measurement
- Inventory Equipment
- USB Plus Power
- Telecommunications

**CABLE PLUG KITS, STANDARD SHIELDING**



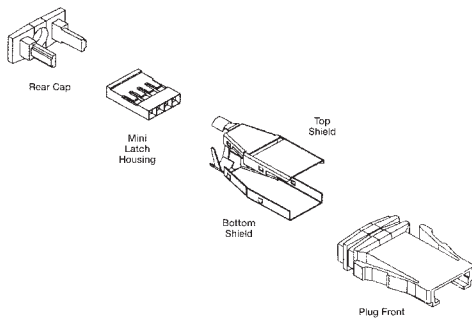
Contact configuration	Base part Number
1x4	91481
1x6	91482
1x8	91483
2x3	91485
2x4	91486
2x6	91487
2x8	91488
2x10	91489

**PART NUMBER CONSTRUCTION**

BBBBB-DCELF  
 B=5 digit base part number  
 D=Cable diameter (see table)  
 C=Color selection (see back page)  
 E=Cable Exit Style\*; 1=Rear  
 LF=Indicates lead-free RoHS compatible product  
  
 \*Special right and left cable exit styles are available for some double row configurations. Consult print 91481

D	Sizes 2x3 and 2x4 Cable O.D.					Sizes 2x6, 2x8 and 2x10 Cable O.D.					Sizes 1x4, 1x6, 1x8, Cable O.D.				
	mm	in.	to	mm	in	mm	in.	to	mm	in	mm	in.	to	mm	in
0	1.02	0.040	to	1.65	0.065	3.68	0.145	to	4.19	0.165	1.14	0.045	to	1.91	0.075
1	1.78	0.070	to	2.41	0.095	4.32	0.170	to	4.95	0.195	2.03	0.080	to	2.41	0.095
2	2.54	0.100	to	3.18	0.125	5.08	0.200	to	5.72	0.225	2.54	0.100	to	2.92	0.115
3	3.30	0.130	to	3.94	0.155	5.84	0.230	to	6.48	0.255	3.05	0.120	to	3.43	0.135
4	4.06	0.160	to	4.70	0.185	6.60	0.260	to	7.24	0.285	3.56	0.140	to	3.94	0.155
5	4.83	0.190	to	5.46	0.215	7.37	0.290	to	8.00	0.315	4.06	0.160	to	4.45	0.175
6	5.59	0.220	to	6.22	0.245	N/A					4.57	0.180	to	4.95	0.195
7	6.35	0.250	to	6.99	0.275	N/A					N/A				
8	No Exit Hole					No Exit Hole					N/A				

**CABLE PLUG KITS, ENHANCED SHIELDING**



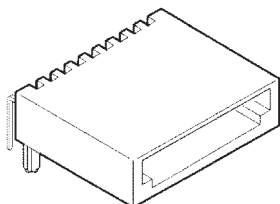
Contact configuration	Base part Number
1x4	74901
1x8	74903
2x3	74902
2x4	98028

**PART NUMBER CONSTRUCTION**

BBBBB-DOCKLF  
 B=5 digit base part number  
 D=Cable diameter (see table)  
 C=Color selection (see back page)  
 K=Keying option (2x4, 98028 only, see print)  
 LF=Indicates lead-free RoHS compatible product

D	1 x 4 Kit	1 x 8 Kit	2 x 3 Kit	2 x 4 Kit
6	5.08mm(0.200 in)		6.35mm(0.250 in)	
7		6.73mm(0.265 in)		6.35mm(0.250 in)
8				7.11mm(0.280 in)

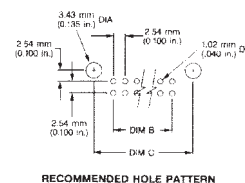
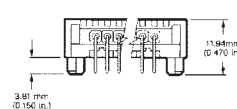
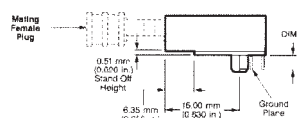
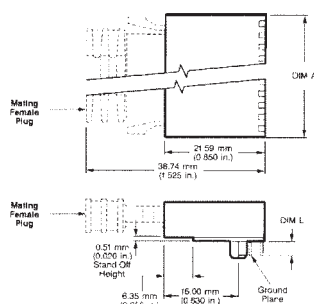
## PCB RECEPTACLE RIGHT ANGLE SINGLE ROW



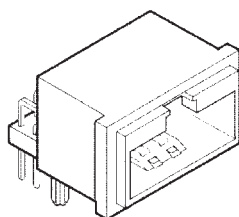
Contact configuration	Base part Number
1x4	69273
1x6	78304
1x8	69913

## PART NUMBER CONSTRUCTION

BBBBB-SOCLF  
 B=5 digit base part number  
 S=Solder tail length (see chart below)  
 C=Color selection (see back page)  
 LF=Indicates lead-free RoHS compatible product



## PCB RECEPTACLE RIGHT ANGLE DOUBLE ROW

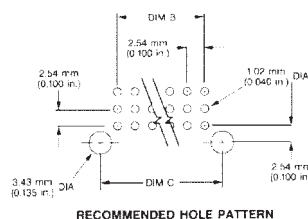
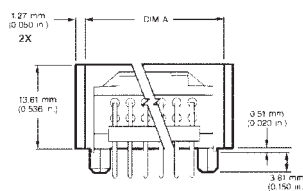
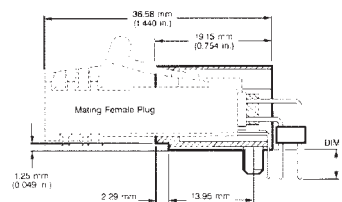


Contact configuration	Base part Number
2x3	78097
2x4	69958
2x4	74355*
2x6	78098
2x8	69901
2x10	79610

\*External Shield version

## PART NUMBER CONSTRUCTION

BBBBB-SOCKLF  
 B=5 digit base part number  
 S=Solder tail length (see chart below)  
 C=Color selection (see back page)  
 K=Keying designation (2x4, 74355 only, see print)  
 LF=Indicates lead-free RoHS compatible product



Solder Tail Length		
S	Single Row	Double Row
0	3.81mm(0.150 in)	5.08mm(0.200 in)
1	2.79mm(0.110 in)	3.30mm(0.130 in)



## MATERIALS - PCB RECEPTACLE

- Main Housing: Polycarbonate UL 94 V-O
- Contact Insulator: 20% min glass-filled nylon UL 94 V-O
- Main Contacts: 0.64mm (0.025in) square posts; 3/4 hard phosphor bronze plated with 30u Gold/GXT over 50u Nickel
- Ground Contact base metal: 3/4 hard phosphor bronze plated with 200u pure tin
- Shield: 1/2 hard minimum brass C260 plated with 100u bright tin over 50u nickel

## MATERIALS - CABLE PLUG KITS

- Plugs and End caps: Polycarbonate UL 94 V-O
- Mini-latch contact housing: 20% min glass-filled nylon UL 94 V-O, Black
- Wire contacts: Not included; Use FCI Mini-PV CuNi/BeCu gold or GXT plated receptacle contacts
- Shield Can: 3/4 hard brass C260 plated with 100u bright tin over 50u nickel

## ELECTRICAL PERFORMANCE

- Contact resistance (LLCR) main contacts: 35 mΩ max.
- Ground terminal/Shield contact resistance: 14 mΩ max.
- Current Rating: 3.0 amp continuous per contact
- Cable Assembly Shielding: 20 db minimum from 30 to 500 Mhz

## HOUSING COLOR OPTIONS

- 2=Off-white
- 4=Black
- 7=Silver gray
- 9=Pebble gray

## MECHANICAL PERFORMANCE

- Mating force: 13 lbs max.
- Unmating force: 3.5 lbs max.
- Latch Retention: 20 lbs.
- Latch Durability: 4000 cycles.
- Retention force, Strain Relief Plug to cable: 15 lb. Minimum
- Contact durability: 1000 mating cycles

## TECHNICAL DOCUMENTS

- Product Specification: GS-12-003
- Instruction Sheet: TA-924

## PACKAGING

- PCB Receptacles - Trays in boxes
- Cable Plug kits - Bags in bulk

Additional information can be found at [www.fciconnect.com/latchnlok](http://www.fciconnect.com/latchnlok)