

# **D-SUBMINIATURE ACCESSORIES**

#### **OVERVIEW**

FCI's D-Subminiature connectors are part of an industry standard for applications requiring robust and reliable connectors. These proven D-Subminiature connectors are one of the most popular Input /Output interconnects, addressing a wide variety of applications in Telecommunications, Data, Consumer, Industrial, Military, Instrumentation and Medical. Since many years FCI has been offering a wide range of D-Subminiature connectors to meet various design requirements including those in harsh environment.

D-sub connectors are the preferred Input/Output connectors in interface functions between equipment terminals, equipment network etc. During such applications they may be submitted to mechanical stresses that are sometimes severe. In order to prevent risks (pulling up, accidental unmating, etc), FCI offers a wide range of derived accessories. For instance plastic or metalised plastic hoods, EMI/RFI shielded two part metal hoods. Various cable clamps, locking devices, dust caps, brackets etc.



### **FEATURES & BENEFITS**

- · Hoods available in Plastic, Metalised and Metallic form
- Hoods available for 09 to 50 way connectors
- EMI/RFI shielded straight & angled exit Metal hoods with cable strain relief and jackscrews
- Hoods available with different orientation and locking options
- Different locking devices like screw locks, lever locks etc
- · Metal and plastic dust caps
- RoHS compliant

### **TARGET MARKETS/APPLICATIONS**

- Data
  - Servers
  - Server & storage blades
  - External Storage system
  - HDDs
  - · HDD Carriers
- · Communications
  - · Processor & Storage blades
  - · Mezzanine cards
- Industrial, Instrumentation & Medical
  - · Embedded system boards

### 1 · STRAIGHT EXIT PLASTIC AND METALISED HOOD WITH INTEGRATED LOCKING

### - ECONOMICAL SERIES





### • Material: Self-extinguishing UL94V-0 thermoplastic

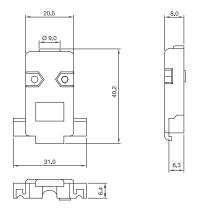
· Colour: Black / metalised

• Temperature range : -55°C +105°C

• Locking screws : UNC 4-40 thread

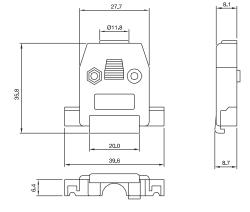
### **SHELL SIZE E (9 WAY)**

Hood	Part Number
Plastic hood	10039449-00001LF
Metalised hood	10039449-00002LF



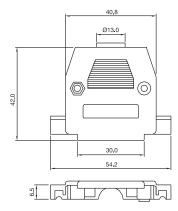
### **SHELL SIZE A (15 WAY)**

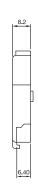
Hood	Part Number
Plastic hood	10039450-00001LF
Metalised hood	10039450-00002LF



### **SHELL SIZE B (25 WAY)**

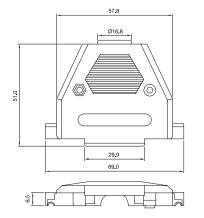
Hood	Part Number
Plastic hood	10039451-00001LF
Metalised hood	10039451-00002LF





### **SHELL SIZE C (37 WAY)**

Hood	Part Number
Plastic hood	10039452-00001LF
Metalised hood	10039452-00002LF

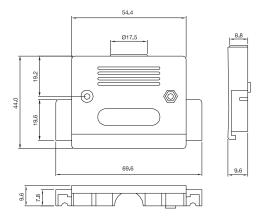




### STRAIGHT EXIT PLASTIC AND METALISED HOOD WITH INTEGRATED LOCKING

### **SHELL SIZE D (50 WAY)**

Hood	Part Number
Plastic hood	10039453-00001LF
Metalised hood	10039453-00002LF



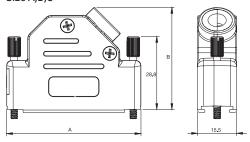
### 2 · ANGLE EXIT PLASTIC HOOD FOR CABLE



Shell size	Part Number	А	В	Cable Diameter
E (9)	8655PHRA0901LF	31.0	36.2	4 to
A (15)	8655PHRA1501LF	39.5	40.2	13mm
B (25)	8655PHRA2501LF	53.0	40.2	
C (37)	8655PHRA3701LF	69.5	40.2	

All dimensions in mm.

Size A,B,C



Size E

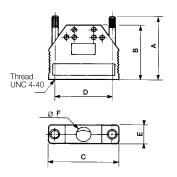


- Hoods available in Plastic, Metalised and Metallic form
- Cable strain relief: Steel fibre reinforced polycarbonate UL94V-0
- · Colour: Black
- Temperature range : -40°C +120°C
- Packaging: Bulk, in box of 100 pieces
- Locking screws : UNC 4-40 thread

### 3 · STRAIGHT EXIT METAL HOOD WITH TWO METAL CLAMPS FOR CABLE EMI / RFI







Shell size	Part numbers in bulk	Packaging	Part numbers (in individual set)	Packaging	A <sup>± 0.1</sup>	B <sup>± 0.5</sup>	C <sup>± 0.1</sup>	D± 0.1	E <sup>± 0.2</sup>	F max.
Е	8655MH0901LF	80	8655MH0911LF	50	55.00	45.00	34.40	24.99	14.70	7.85
Α	8655MH1501LF	80	8655MH1511LF	50	55.00	45.00	42.70	33.32	14.70	11.80
В	8655MH2501LF	60	8655MH2511LF	50	55.00	45.00	56.70	47.04	14.70	11.80
С	8655MH3701LF	40	8655MH3711LF	50	55.00	45.00	72.95	63.50	14.70	11.80
D	8655MH5001LF	40	8655MH5011LF	50	55.00	45.00	70.60	61.11	14.70	14.10

· Material: Zamack

• Plating: Nickel

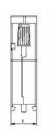
• Environment: Frequencies at 100Mz > 40dB

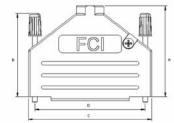
• Corrosion resistance: 50 Hours exposure to salt spray

### 4 • STRAIGHT EXIT METAL HOOD FOR CABLE EMI / RFI – ECONOMICAL SERIES









Shell size	Part numbers in bulk	А	В	С	D	Е
Е	8655MH0901BLF	38.3	47.3	31	24.99	14.6
Α	8655MH1501BLF	40.5	47.3	39.5	33.32	14.6
В	8655MH2501BLF	47.3	47.3	53.2	47.04	14.6
С	8655MH3701BLF	52.2	47.3	70.9	63.5	15

• Material: Zamack, nickel plated

• Cable strain relief : Steel fiber reinforced polycarbonate UL94V-0 for EMI/RFI screening

• Temperature range : -40°C +120°C

• Environment: >40dB between 30MHz and 1GHz

• Packaging : Bulk, in box of 100 pieces

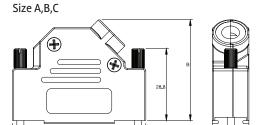
• Locking screws : UNC 4-40 thread

### 5 • ANGLE EXIT METAL HOOD FOR CABLE EMI / RFI - ECONOMICAL SERIES



Shell size	Part Number	А	В	Cable Diameter
E (9)	8655PHRA0901LF	31.0	36.2	4 to 13 mm
A (15)	8655PHRA1501LF	39.5	40.2	
B (25)	8655PHRA2501LF	53.2	40.2	
C (37)	8655PHRA3701LF	69.7	40.2	
D (50)	8655MHRA5001LF	67.2	43.7	10 to 16 mm

- · Material: Zamack, Nickel plated
- Cable strain relief: Steel fibre reinforced polycarbonate UL94V-0 for EMI/RFI screening
- Temperature range : -40°C +120°C



Size E



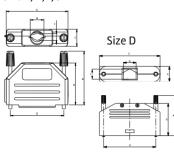
- Environment: >40 dB between 30MHz and 1GHz
- Packaging : Bulk, in box of 100 pieces
- Locking screws : UNC 4-40 thread

### 6 · "SNAP TOGETHER" PLASTIC HOOD





### Size E, A,B,C



Shell	Part Number	А	В	C D <b>E</b>		E	with clamp			witho	ut clamp
size							F		G	F	G
							min.	max.			
E (9)	86303637BLF	31.0	36.2	32.4	24.99	15	1	5.5	8.5	7	8.5
A (15)	86303638BLF	39.5	40.2	40.7	33.32	15	4	7	12	11	12
B (25)	86303639BLF	53.2	40.2	54.4	47.04	15	4	7	12	11	12
C (37)	86303640BLF	69.7	40.2	70.9	63.5	15	4	7	12	11	12
D (50)	86303641BLF	67.2	43.7	71.2	61.11	15	4	11.5	15.5	14	18

- Material: Zamack, nickel plated
- Material (size D): Thermoplastic (UL94V-2)
- · Colour: Black

- Temperature range : -40°C +95°C
- Packaging : Individual sets
- Locking screws : UNC 4-40 thread

### 7 • UNIVERSAL PLASTIC HOOD WITH METAL CLAMP FOR STRAIN RELIEF



Shell size	Part Numbers Black Hood			АВ				With c	lamp		Without	
SIZE	Black Hood	Metalised		D	Е			clamp				
		Hood							D	E		
							min.	max.				
Е	863093C09ALF	863093C09MLF	29.75	15.50	24.25	6	1.90	0.10	8	11.50		
Α	863093C15ALF	863093C15MLF	29.75	15.50	32.50	6	1.90	0.10	8	11.50		
В	863093C25ALF	863093C25MLF	46.50	15.50	46.00	13.50	2.60	0.10	16	11.50		
С	863093C37ALF	863093C37MLF	46.50	15.50	60.50	13.50	2.60	0.10	16	11.50		
D	863093C50ALF	863093C50MLF	46.50	18.00	56.50	15.50	4.40	12.60	18	14.00		

 Material (black hood): Self-extinguishing UL94V-0 thermoplastic

• Material (metalised): Thermoplastic

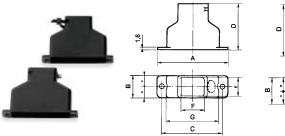
• Temperature range : -55°C +125°C

• Packaging: Individual sets

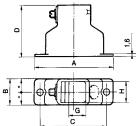
All dimensions in mm.

# MONOBLOC PLASTIC HOODS FOR POTTING

### 8 • STRAIGHT EXIT





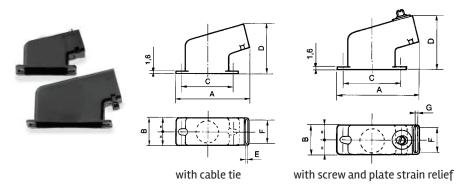


with screw and plate strain relief

- Material: Self-extinguishing UL rated 94V-0 thermoplastic
- Temperature range : -55°C to +105°C
- Colour: Black

Shell	Part Number		А	В	С	D	Е	F	G		Н
size	Hood with cable tie	Hood with screw and plate							min.	max.	
Е	863086BLF	86303920ALF	30.60	12.50	25.00	29.00	9.90	9.90	2.70	7.10	10.50
Α	863021BLF	86303921ALF	38.90	12.50	33.32	29.00	9.90	11.90	4.50	9.10	10.50
В	863022BLF	86303922ALF	52.80	12.50	47.05	35.00	9.90	16.40	9.20	13.60	10.50
С	863023BLF	86303923ALF	69.10	12.50	63.50	41.00	9.90	23.40	9.20	20.60	10.50
D	863024BLF	86303924ALF	66.70	15.30	61.10	41.00	12.70	23.40	9.20	20.60	13.30

### 9 · RIGHT ANGLE EXIT



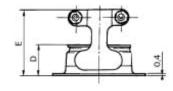
Shell	. Part Number		А	В	С	D	Е	F	G	
size	Hood with cable tie	Hood with screw and plate							min.	max.
Е	86305002BLF	86303925ALF	30.60	12.50	25.00	26.20	10.50	10.50	2.70	7.10
Α	863026BLF	86303926ALF	38.90	12.50	33.32	28.60	12.50	10.50	4.50	9.10
В	863027BLF	86303927ALF	52.80	12.50	47.05	36.40	17.00	10.50	9.20	13.60
С	863028BLF	86303928ALF	69.10	12.50	63.50	42.60	24.00	10.50	9.20	20.60
D	863029BLF	86303929ALF	66.70	15.30	61.10	41.00	24.00	13.30	9.20	20.60

# **HOOD WITH CABLE CLAMPS**

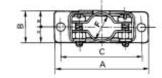
### 10 • METAL HOOD WITH CIRCULAR CLAMP AND STRAIGHT EXIT

- Material: Steel
- Plating: Yellow chromate cadmium
- Corrosion resistance:
   50 hours exposure to salt spray





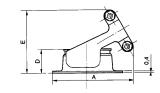
Shell size	Part Numbers	А	В	С	D	Е	F
Е	863010	30.55	12.70	24.99	12.30	26.40	8.00
Α	863011	38.89	12.70	33.32	12.30	26.40	10.00
В	863012	52.78	12.70	47.04	12.30	27.20	15.00
С	863013	69.06	12.70	63.50	12.30	27.20	18.00
D	863014	66.67	15.40	61.17	12.30	27.20	20.60



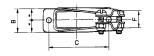
### 11 • METAL HOOD WITH CIRCULAR CLAMP AND 30° EXIT

- Material: Steel
- Plating: Yellow chromate cadmium
- Corrosion resistance:
   50 hours exposure to salt spray





Shell size	Part Numbers	А	В	С	D	Е	F
Е	863016	39.00	12.70	24.99	12.30	30.60	8.00
Α	863017	43.10	12.70	33.32	12.30	32.50	10.00
В	863018	55.40	12.70	47.04	12.30	34.50	15.00
С	863019	75.30	12.70	63.50	12.30	37.50	18.00
D	863020	72.80	15.40	61.11	12.30	37.60	20.60



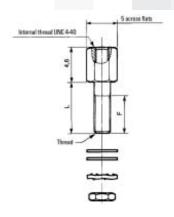
# **D**-SUBMINIATURE ACCESSORIES

### 12 • FEMALE SCREW LOCKS

Thread	L.Max	F	Material	Part Numbers
M3	8.30	6.90	Brass	863001TLF
M3	8.30	6.90	Steel	86552153TLF
M3	5.00	12.50	Brass	863001017TLF
М3	12.00	12.50	Brass	863001061TLF
UNC 4-40	8.30	6.90	Brass	863001060TLF

• Plating: Bright tin

• Corrosion resistance: 50 hours exposure to salt spray



### 13 • SPECIFIC FEMALE SCREW LOCKS FOR DELTA D SERIES

Thread	L.Max	F	Material	Part Numbers
M3	4.5	3.7	Steel	863001018TLF
UNC 4-40	4.5	3.7	Steel	86552153TLF

### 13 • SPECIFIC FEMALE SCREW LOCKS FOR DELTA D SERIES

Material	Torque Max. (Nm)
Brass	0.5
Steel	0.7

#### 14 · MALE SCREW LOCKS

For use with connector without hood or with hood 7

For use with connector with hoods 10

For use with connector with hoods 8

Shell size	Connector Type	Part Numbers					
Е	Male	863005ATLF	863004ATLF	863009ATLF			
	Female						
Α	Male						
	Female						
В	Male						
	Female						
С	Male	863008ATLF					
	Female	863005ATLF					
D	Male	863015ATLF	863002ATLF	863025ATLF			
	Female	863003ATLF					



· Material: Steel

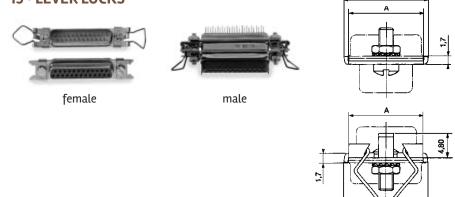
• Plating: Bright tin

Corrosion resistance: 50 hours exposure to salt spray
To obtain military plating (yellow chromate cadmium)
exclude «TLF» in the part number (ex: 863005A)

• Thread: UNC 4-40

# **LOCKING DEVICES**

### 15 • LEVER LOCKS



Shell	А	В	M3 thread		UNC 4-40 thread		
size			Female	Male	Female	Male	
E, A, B, C	12.50	14.30	86303425LF	86552096LF	86303425060LF	86552098LF	
D	15.30	17.10	86303426LF	86552097LF	86303426060LF	86552099LF	

- Material: Steel
- · Plating: Passivated

### 16 • SPECIFIC LEVER LOCKS FOR STRAIGHT DELTA D SERIES WITH HARPOONS

Shell	M3 thread		UNC 4-40 thread		
size	Female Male		Female	Male	
E, A, B, C	86303425LF	865520961ALF	86303425060LF	865520981ALF	
D	86303426LF	865520971ALF	86303426060LF	865520991ALF	

### **CAPS**

### 17 • METAL CAPS

Chall	F	Deat Nearly are	
Shell size	For use with connectors	Part Numbers	
Е	Male	86553148TLF	30
	Female	86553113TLF	30
		86553138TLF*	30
Α	Male	86553149TLF	25
	Female	86553114TLF	25
		86553139TLF*	25
В	Male	86553150TLF	20
	Female	86553115TLF	20
		86553140TLF*	20
С	Male	86553151TLF	15
	Female	86553116TLF	15
		86553141TLF*	15
D	Male	86553152TLF	10
	Female	86553117TLF	10
		86553142TLF*	10



- · Material: Steel
- Plating: Bright tin
- Corrosion resistance: To obtain military plating (yellow chromate cadmium) exclude "TLF" in part number (ex: 86553148A)

### 18 • ATTACHING CORD FOR METAL CAPS

86553156LF (Length = 100 mm)

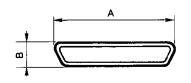
Packaging: Individual



### 18 • ATTACHING CORD FOR METAL CAPS







-	6,35
_	•
	 2
	 0,35

Shell size	For male connector	А	В	For female connector	А	В
E	70518CLF	19.17	10.30	70523CLF	17.77	9.0
А	70519CLF	27.50	10.30	70524CLF	26.10	9.0
В	70520CLF	41.67	10.70	70525CLF	39.82	9.0
С	70521CLF	58.13	10.70	70526CLF	56.28	9.0
D	70522CLF	55.49	13.40	70527CLF	53.89	11.85

- · Material: Thermoplastic
- · Color: Red

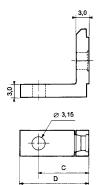
### **LOCKING DEVICES**

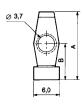
Plastic mounting brackets are normally supplied with angled spill D-Sub connectors series D, DP, DM and DMW. However, both plastic and metal brackets can be ordered separately, using the part numbers listed below. These brackets are supplied with a screw and a nut. Order two assemblies for each connector.

### 20 • PLASTIC BRACKETS

Shell size	Part Numbers	А	В	С	D
E, A, B, C	86303714LF	13.20	7.20	10.74	13.90
D	86303715LF	16.00	8.60	12.09	16.50

• Material: UL rated 94V0 thermoplastic

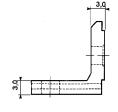


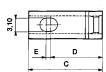


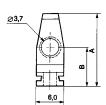
### 21 • PLASTIC BRACKETS WITH OBLONG MOUNTING HOLE TO PCB

Shell size	Part Numbers	А	В	С	D	Е
E, A, B, C	86303612LF	13.20	7.40	13.60	10.50	0.8
D	86303613LF	16.15	8.80	16.50	11.60	1.0

• Material: UL rated 94V0 thermoplastic







### 22 • METAL BRACKETS

Shell size	Part Numbers	А	В	С	D
E, A, B, C	86552008	10.55	7.20	10.74	13.90
D	86552009	12.55	8.60	12.09	16.50

• Material: Steel

• Plating: Yellow chromate cadmium

