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Backshells from Amphenol PCD



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Backshells for Connector Family “J”

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Amphenol PCD

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 Phone: 978-624-3400
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Backshells

From Amphenol PCD

Amphenol holds the leadership position for providing interconnect solutions that meet almost all Military, Aerospace and Industrial standards in the U.S., Europe and Asia.

With design and manufacturing facilities and sales offices spread across the globe, Amphenol offers a vast product portfolio of connectors, cable assemblies and system integration for almost all applications across various industries.

BACKSHELLS

Within Amphenol's wide range of interconnect products is a full range of backshell hardware. Customers can take advantage of Amphenol's global synergy for connectors, backshells and cable harnessing with one place for all their interconnect needs.

Plus, coming to Amphenol for a custom design of a backshell, means that customers benefit from the vast amount of experience this global company has in designing interconnect solutions.

This section covers the backshells that are provided through Amphenol PCD:

- Backshells for Connector Family "L", which includes MIL-DTL-38999 Series III and Series IV
- Backshells for Connector Family "K", which includes MIL-DTL-38999 Series II and Series I
- Backshells for Connector Family "J", which includes MIL-DTL-26482 (Series 2), MIL-DTL-5015 (Matrix MS345X), MIL-DTL-83723 (Matrix & Pyle Series III)



Amphenol . . We Connect the World Together



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

Fiber Optics

High Speed Contacts

EMI Filter Transient

Matrix 2 26482

Matrix | Pyle III 83723

Pyle 26500

5015 Crimp Rear Release Matrix

Class 1 22992

Back-Shell

Options Others

38999
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Amphenol Backshells are available in several different types, designed for optimum performance in the application or environment it will be used in. For example; in ground and naval applications the robustness and environmental sealing may be more important, where as weight may be the prime consideration for space and Aerospace application. The following overview explains the various families of Amphenol Backshells with its applications.

Some families of backshells shown here can be used without any additional protection. Some other types of backshells shown are generally used with heat shrink boots or similar protection/strain relief mechanism depending upon the specific requirements. Also, there are some clamps & nuts for the applications where varying degrees of strain reliefs and cable holding will suffice and weight saving is of higher importance.

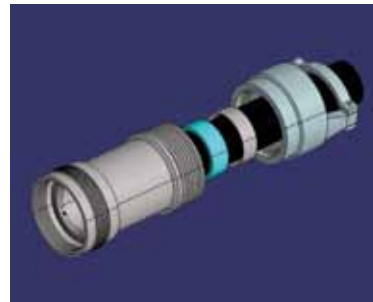
Non-Environmental Backshell

- Effective cable holding mechanism with good strain relief when the environmental protection of the cable termination area is not a concern. Amphenol offers cost-effective solutions by eliminating extra sealing parts.
- Suitable for an inside the box/climate controlled room application where heavy cabling should be supported with adequate strain relief.



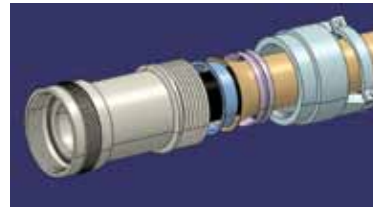
Environmental Backshell

- Not only provide the cable support and strain relief, but ensure the cable sealing and environment protection by means of high quality sealing grommet and grommet follower. The strain relief nut is tightened squeezing the grommet onto the cable jacket during assembly.
- Provides 6 feet water sealing protection when used with perfectly jacketed cable, and suitable for harsh environment applications.



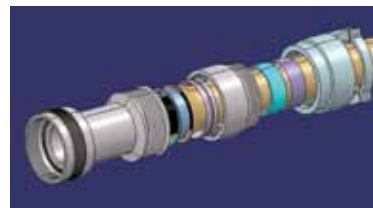
Non-Environmental EMI/RFI Backshell

- 360-degree screen termination facility, in addition to other features of the Non-Environmental type. Available in straight, 90 degree bent and 45 degree bent varieties.
- Accommodates both individual and overall shielding.



Environmental EMI/RFI Backshell

- Ideal choice for heavy duty cabling solutions in harsh environment situations where electromagnetic and radio frequency noises are to be isolated.
- Accommodates both individual and overall shielding.



High Speed
Fiber Optics
Contacts

EMI Filter Transient

26482
Matrix 2

83723
III
Matrix Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

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Class L

Back-Shells

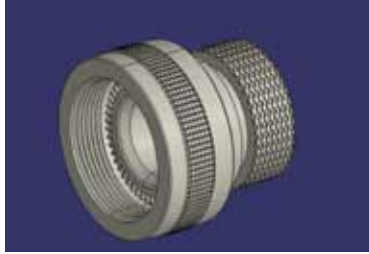
Options Others

Backshells

Quick Reference of Products, cont.

Shrink Boot Adapter

- A good solution when the unshielded cables are terminated with heat shrink boots. It has a groove where the boot lip can be held which provides good grip apart from sufficient space inside for the cable looping.
- Using the heat shrink boot is one way of providing environmental protection and strain relief to cable termination. Using a suitable adapter is essential here to ensure the repairability.



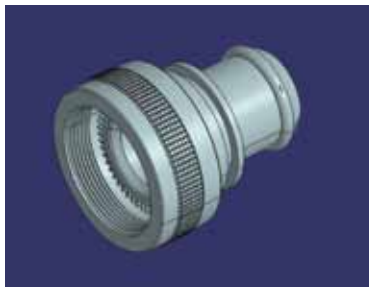
Crimp Ring Adapter

- Many cable terminations where heat shrink boots are used will require provision for terminating the screens too. It is achieved in this type of backshell through a ring, which can be crimped to the backshell body holding the screens in between.



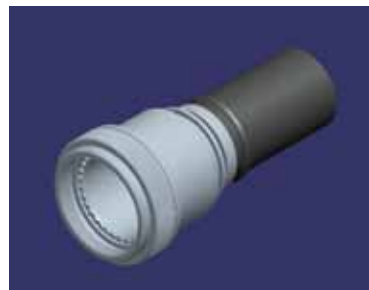
Band Lock Adapter

- Another method of termination of screens. A high quality band will do the job in this backshell. Tempered bands are tightened over the shields, which is pulled over the banding area, using a special assembly tool.
- Suitable over cover by heat shrink boot or some other method as chosen by the designer could be used.
- Both crimp ring and banded terminations give a low DC resistance.



Pre-Shield Adapter

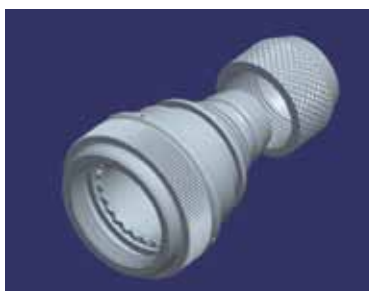
- Supplied with some length of braid attached. This braid overlaps with the cable braid.
- Effective shielding takes place due to the 360° contact of the braid.
- Designed to accept heat shrink boot.
- Ease of assembly saves time for cable termination.



SQ Adapter

- Another cost-effective way to terminate the braid to the adapter. The cost-effective braid is pulled over the conical shape to the rear end of the adapter and then tied. The end nut is tightened to ensure adequate grip for the shielding.
- A heat shrink boot can be used with this adapter also.

Note: The SQ adapter style is not covered in this catalog section; for more information go to www.backshellworld.com



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Matrix 2

26482

Matrix | Pyle

III

83723

Pyle

26500

Matrix

5015

Crimp Rear Release Matrix

Class 1

22992

Back-

Shells

Options

Others

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Dualok

II

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26482

Matrix 2

83723

III
Matrix | Pyle

26500

Pyle

5015

Crimp Rear Release
Matrix

22992

Class L

Back-Shells

Options Others

Quick Clamp

- A light weight clamp used for securing and “tidying up” cable into a desired direction.
- Used in interior wiring of aircraft.



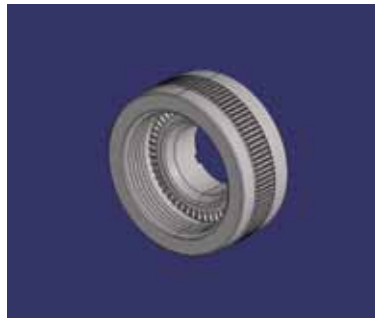
Strain Relief Clamps

- Another cost effective cable holding option when environmental protection is not a concern, and weight savings is a major consideration.
- Secures and “tidys-up” the cable and also provides good strain relief at the termination area.



Grommet Nut

- Provides a good grommet-holding force for the crimp connectors when expensive and heavy backshells are not used. Such holding force is essential to hold the contacts and grommet in place when terminated with wire bundles.



Lamp Thread Adapter

- An adapter with threads similar to that in the lamp base for shield termination.
- An effective, easy and quick method of shield termination and field maintenance.
- Termination area can accept a nut as well as a clamp. The nut option enables the use of heat shrink boot and the clamp option will facilitate the strain relief clamping without heat shrink boot after the shield/cable termination.



Note: The lamp thread adapter style is not covered in this catalog section; for more information go to www.backshellworld.com

Backshells

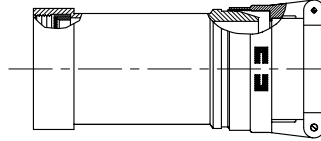
Angle/Profiles and Coupling Styles

BACKSHELL ANGLE/PROFILES

Amphenol Backshells are available in three different angular profiles: straight, 90 degree and 45 degree. These profiles will meet most of the cable routing required in the interconnect market. We can also make additional profiles if required. Please go to the web link <http://www.backshellworld.com/customdesign.asp> to contact Amphenol about your specific backshell needs.

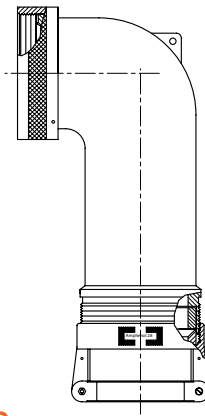
Straight Backshells

Straight Backshells are available in different length and cable entry diameter for most applications. Different cable and braid terminating systems are also available as shown in the respective product sections.



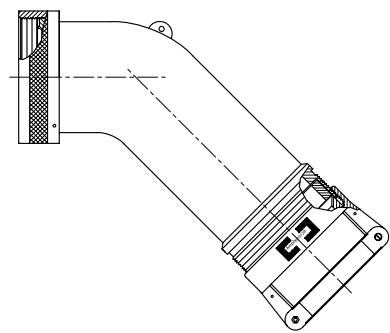
90° Angled Backshells

Many applications require the cable to be bent and routed rather than straight routed. Amphenol offers a 90° angled style in all the Backshell families for space saving and convenience.



45° Angled Backshells

Amphenol offers further design flexibility with a backshell that allows the cable to be routed 45° to the axis of the assembly.



BACKSHELL COUPLING STYLES

Various coupling styles are available for the coupling between the backshell and the connector. Popular styles are shown in the respective backshell sections, and custom profiles can be designed. Please go to the web link <http://www.backshellworld.com/customdesign.asp> to contact Amphenol about your specific backshell needs.

Spin Coupling

A captivated coupling nut within the backshell which provides the following advantages:

- Free rotation of the coupling nut which makes the assembly of the backshell to the connector easy without turning the entire backshell body.
- Lock wire holes are provided on the coupling nut to prevent accidental decoupling.



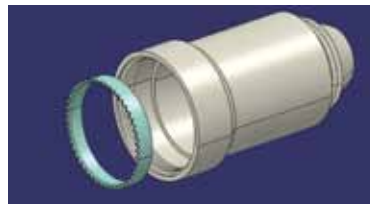
Self-Lock Coupling

Same as the Spin Coupling style with the additional feature of “self-locking”. Internally locks the movement of the coupling nut so that accidental decoupling is prevented. Used in higher vibration conditions.



Direct Coupling

The coupling nut is eliminated in this design, and the backshell directly threads to the connector. For applications when simple direct connectivity is sufficient.



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HD
Dualok
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Accessories
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Herm/Seal
PCB

Fiber	High Speed
Optics	
Contacts	

EMI Filter
Transient

Matrix 2
26482

Matrix I Pyle
III
83723

Pyle
26500

Crimp Rear
Release
Matrix
5015

Class I
22992

Back-
Shells

Options
Others

HOW TO SELECT A SUITABLE BACKSHELL

1. Based on the design and application considerations select the backshell type from the Quick Reference Guide, pages 479-482.
2. Review the Angle/Profiles and Coupling Styles on page 483 to determine the configuration which suits your application.
3. Scan the Connector Group Table on the next page to determine the Group Code (K, L or J) of the connector for which you require the backshell.
 - Backshells for Connector Family “L”, which includes MIL-DTL-38999 Series III and Series IV
 - Backshells for Connector Family “K”, which includes MIL-DTL-38999 Series II and Series I
 - Backshells for Connector Family “J”, which includes MIL-DTL-26482 (Series 2), MIL-DTL-5015 (Matrix MS345X), MIL-DTL-83723 (Matrix & Pyle Series III)
4. Go to the Backshell style pages within the connector family of your choice (K, L or J). Find the backshell style you need in the appropriate connector group section based on your choice of angle/profile and coupling style.
5. Build a part number from the sample part number on each backshell style page. For the material and finish options, you will need to turn to page 486 and review Table-2.

Selecting a Backshell can also be done from our web link:

<http://www.backshellworld.com/backshelldesigner.asp>

CROSS-REFERENCE TO OTHER MANUFACTURER’S BACKSHELLS

If you have a Military part number or other manufacturer’s part number for which you are looking for an equivalent item, we have provided a cross-reference on our web link:

<http://www.backshellworld.com/crossreference.aspx>

CUSTOM BUILT BACKSHELLS

Backshells for Military & Aerospace applications are governed by SAE, AS85049 standard and Amphenol Backshells are designed to meet the requirement of this standard. Though this standard covers the most popular styles of backshells, many applications call for additional styles and designs. Here is where the capability of Amphenol can support you from the concept to product realization and thereby your unique specification need is satisfied. Please visit our web link for further help:

<http://www.backshellworld.com/customdesign.asp>

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26482

Matrix 2

83723

III
Matrix | Pyle

26500

Pyle

5015

Crimp Rear Release
Matrix

22992

Class L

Back-Shells

Options Others

Backshells

Tables - By Connector Groups

By Specification (TABLE-1A)

Connector Specification	Series/Class	Connector Group Code
40M38277		K
40M39569		J
BS9520	G0001	K
BS9520	G0002	K
BS9520	G0003	L
BS9522 F0001	Patt 602	J
BS9522 F0012	Patt 615	M*
BS9522 F0017	Patt 105	N*
BS9522 F0020	Patt 608	N*
BS9522 F0029	Patt 616	K
BS9522 F0042		J
BS9522 N0001	Patt 603	N*
BS9522 N0003	Patt 614	K
CECC 75201.001		J
CECC 75201.002		L
DEF 5326-3		J
EN 2997		J
EN 3645		L
EN 3646		J
EN3372		M*
ESC 10		J
ESC11		J
JN1003		M*
LN 29504		J
LN 29728		J
LN29729		M*
MIL-C-81703	3	J
MIL-DTL-26482	2	J
MIL-DTL-38999	I	K
MIL-DTL-38999	II	K
MIL-DTL-38999	III	L
MIL-DTL-38999	IV	L
MIL-DTL-5015	MS340	J
MIL-DTL-5015	MS345	J
MIL-DTL-83723	I	J
MIL-DTL-83723	III	J
NAS 1599		J
NFC93422	HE302	J
NFC93422	HE306	M*
NFC93422	HE308	K
NFC93422	HE309	K
NFL 54140		J
PAN 6432-1		J
PAN 6432-2		J
PAN 6433-1		K
PAN6433-2		M*
VG 96912	2	K
VG 96912	1	M*

By Manufacturer (TABLE-1D)

Amphenol/Bendix/Socapex/Pyle Part Number Prefix	Connector Group Code
10-475	K
118	J
162GB	N*
418-1	K
418-2	K
418-5	M*
486	J
518	J
602GB	J
62GB	N*
652	J
711	J
801	J
91-483	J
944	J
B	J
BE	J
BT	J
BY1	J
EA	J
EB	J
EEG	J
ES	J
ET	J
JT	K
LJT	K
LS	J
MB1	J
MB3	J
MB9	K
MD	J
ML94	L
MQ3	J
MT3	J
MT93	L
PTS-DR	J
SJT	M*
T3	L
TV	L
TVRB	L
TVS	L

* Connector Groups M and N are not included in this catalog section. For more information go to backshellworld.com.

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Aquacon
Herm/Seal
PCB

Fiber Optics	High Speed
	Contacts

EMI Filter	Transient
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Matrix 2	26482
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Matrix Pyle	83723
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Pyle	26500
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Crimp Rear Release Matrix	5015
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Class 1	22992
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Back-Shell	
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Options	Others
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Matrix 2

83723
III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class L

Back-Shells

Options
Others

MATERIALS & FINISHES

Amphenol offers adapters in the following standard finishes. The base material is aluminum alloy.

MATERIAL:

- Aluminum parts: As per ASTM B 211, 221, 209, 85, 26
- Steel parts: 300 series, as per AMS-QQ-S-763/ASTM A 582
- Elastomers: Fluro Silcon, Silicon
- Other parts: Suitable corrosion resistant material

MIL (QPL) QUALIFICATION

Many Amphenol Backshells are qualified to SAE-AS 85049 standard. (Old standard is MIL-C-85049).

TABLE-2 (PLATING FINISHES)

Amphenol Designation	MIL Designation	Finish	Guiding Specifications/Requirements
A	A	Anodize, Black*	To meet AS85049 requirements
B		Anodize, Hard*	AMS-A-8625, Type-III, Class-1
L		Nickel, Bright	AMS-QQ-290, Class-1, Grade-F
M		Electroless Nickel	AMS-C-26074, Class-4, Grade-B
N	N	Electroless Nickel	To meet AS85049 requirements
T		Cadmium, Bright	AMS-QQ-P-416, Type-I, Class-2
U		Cadmium, Olive drab	AMS-QQ-P-416, Type II, Class 3
V		Cadmium, Olive drab over Electroless Nickel	AMS-QQ-P-416, Type-II, Class-3 (Cadmium); AMS-C-26074, Class-4, grade-B (Nickel)
W	W	Cadmium, Olive drab over Electroless Nickel	To meet AS85049 requirements
Y		Zinc-Cobalt, Dark Olive drab	ASTM-B840
Z		Zinc-Cobalt, Black	ASTM-B840

For availability of other finishes, email your special requirements: email: sales@backshellworld.com

* Non conductive coatings.

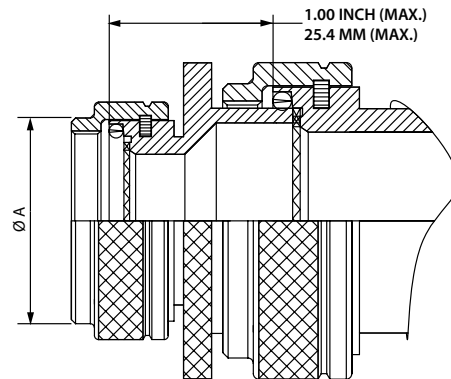
ASSEMBLY TORQUE VALUES

Amphenol recommends the following torque values for its adapters while assembling them to the connectors. These values are based on the coupling thread strength specified in SAE-AS85049 standard.

Connector Shell Size	Torque (Inch-Pounds)
8, 9	40
3, 10, 10SL, 11	40
7, 12, 12S, 13	40
14, 14S, 15	40
16, 16S, 17	40
18, 19, 27	40
20, 21, 37	80
22, 23	80
24, 25, 61	80
28	100
32	100
36	100
40	120
44	120
48	120

STYLE-2 CONFIGURATION

Some design consideration will require bigger diameter cable to be terminated in the smaller shell size connectors. Cable with heavy/thicker shielding, many wires for different branches/routing are some of the examples. Such cable termination will require a bigger adapter body with cable entry dimensions more than the connector rear side dimensions Amphenol also supports this kind of application. The coupling end of the adapter will be modified to Style-2 design as shown in the figure below in such cases. The overall length of the Style-2 design adapters would be increased by approx. 1 inch (25.4mm) as shown. This alternative design is applicable for all the Backshell Families listed in this catalog.



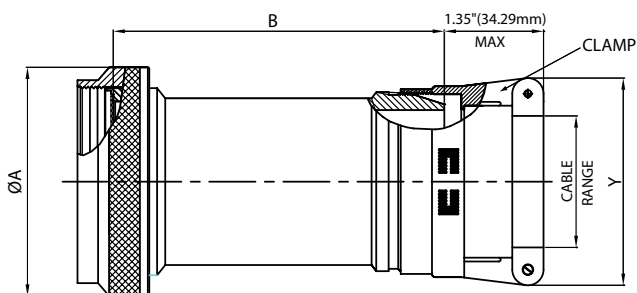
Non-Environmental Backshell

Straight, Spin Coupling

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number
M85049 / 21 11 W 03 A

MIL Series: M85049
 Slash Sheet: 21: Straight, Spin Coupling
 Shell Size: 11
 Cable Range: W
 Length: 03
 Clamp Size: A
 Finish: A

Length: See Table-A (Omit for "STD")
 Clamp Size: See Table-A
 Finish: See Table- 2 (pg. 486)

TABLE - A																
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)				
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM			
				INCH	MM	INCH	MM									
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	0.80	20.32			
		A								2.53	64.26					
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86	1.00	25.40			
		A		2.53	64.26											
11	01	STD.		11 / B	0.06	1.57	0.13			3.18	0.85	21.59	1.53	38.86	0.80	20.32
		A											2.53	64.26		
	02	STD.			0.13	3.18	0.25			6.35			1.53	38.86	1.00	25.40
		A			2.53	64.26										
	03	STD.	0.25		6.35	0.38	9.53	1.53	38.86	1.10			27.94			
		A	2.53		64.26											
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.00	25.40			
		A								2.53	64.26					
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94			
		A		2.53	64.26											
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48			
		A		2.53	64.26											
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.10	27.94	1.53	38.86	1.00	25.40			
		A								2.53	64.26					
		B								3.53	89.66					
		STD.								1.53	38.86					
	03	A		0.25	6.35	0.38	9.53			2.53	64.26	1.10	27.94			
		B		3.53	89.66											
		STD.		1.53	38.86											
		A		0.31	7.92	0.50	12.70			2.53	64.26			1.20	30.48	
	B	3.53		89.66												
	STD.	1.53		38.86												
	A	0.44		11.10	0.63	15.88	2.53			64.26	1.25	31.75				
	B	3.53		89.66												
STD.	1.53	38.86														
A	0.13	3.18	0.25	6.35	1.53	38.86	1.00	25.40								
B	2.53	64.26														
STD.	1.53	38.86														
A	0.25	6.35	0.38	9.53	2.53	64.26			1.10	27.94						
B	3.53	89.66														
STD.	1.53	38.86														
A	0.31	7.92	0.50	12.70	2.53	64.26	1.20	30.48								
B	3.53	89.66														
STD.	1.53	38.86														
B	3.53	89.66														

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- Fiber
- Optics
- High Speed
- Contacts

- EMI Filter
- Transient

- Matrix 2
- 26482

- Matrix Pyle
- III
- 83723

- Pyle
- 26500

- Crimp Rear Release Matrix
- 5015

- Class I
- 22992

- Backshells

- Options
- Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- High Speed
- Fiber Optics
- Contacts

- EMI Filter Transient

- 26482
- Matrix 2

- 83723
- III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class L

- Back-Shells

- Options Others

TABLE – A, Cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
17, cont.	05	STD.	17/E	0.44	11.10	0.63	15.88	1.25	31.75	1.53	38.86	1.25	31.75				
		A								2.53	64.26						
		B								3.53	89.66						
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A								2.53	64.26						
		B								3.53	89.66						
19	03	STD.	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A								2.53	64.26						
		B								3.53	89.66						
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75				
		A								2.53	64.26						
		B								3.53	89.66						
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A								2.53	64.26						
		B								3.53	89.66						
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10				
		A								2.53	64.26						
		B								3.53	89.66						
	21	03		STD.	21 / G	0.25	6.35			0.38	9.53	1.50	38.10	1.53	38.86	1.10	27.94
				A										2.53	64.26		
				B										3.53	89.66		
04		STD.	0.31	7.92		0.50	12.70	1.53	38.86	1.20	30.48						
		A						2.53	64.26								
		B						3.53	89.66								
05		STD.	0.44	11.10		0.63	15.88	1.53	38.86	1.25	31.75						
		A						2.53	64.26								
		B						3.53	89.66								
06		STD.	0.56	14.27		0.75	19.05	1.53	38.86	1.40	35.56						
		A						2.53	64.26								
		B						3.53	89.66								
07		STD.	0.69	17.45		0.88	22.23	1.53	38.86	1.50	38.10						
		A						2.53	64.26								
		B						3.53	89.66								
08		STD.	0.81	20.62		1.00	25.40	1.53	38.86	1.65	41.91						
		A						2.53	64.26								
		B						3.53	89.66								
23		03	STD.	23 / H		0.25	6.35	0.38	9.53	1.65	41.91			1.53	38.86	1.10	27.94
			A											2.53	64.26		
			B											3.53	89.66		
		03	STD.			0.25	6.35	0.38	9.53					1.53	38.86	1.10	27.94
			A											2.53	64.26		
			B											3.53	89.66		
	03	STD.	0.25		6.35	0.38	9.53	1.53	38.86			1.10	27.94				
		A						2.53	64.26								
		B						3.53	89.66								

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

For Connector Family L

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- Fiber Optics
- High Speed
- Contacts

- EMI Filter
- Transient

- Matrix 2
- 26482

- Matrix I/Pyle
- 83723
- III

- Pyle
- 26500

- Crimp Rear Release Matrix
- 5015

- Class 1
- 22992

- Back-Shell

- Options
- Others

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

TABLE - A, Cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
23, cont.	04	STD.	23 / H	0.31	7.92	0.50	12.70	1.65	41.91	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
25	04	STD.	25 / J	0.31	7.92	0.50	12.70	1.75	44.45	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
10	STD.	1.06	26.97	1.25	31.75	1.53	38.86	1.90	48.26				
	A					2.53	64.26						
	B					3.53	89.66						
	C					4.53	115.06						

Note: For more cable entry and length options, email: sales@backshellworld.com. All dimensions for reference only.

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

MIL Part Number

M85049 / 19 11 W 03 A

MIL Series: M85049 / 19
 Slash Sheet: 19: Straight, Spin Coupling
 Shell Size: 11
 Length: 03
 Clamp Size: A
 Finish: A

Length: See Table-A (Omit for "STD")
 Clamp Size: See Table-A
 Finish: See Table-2 (pg. 486)

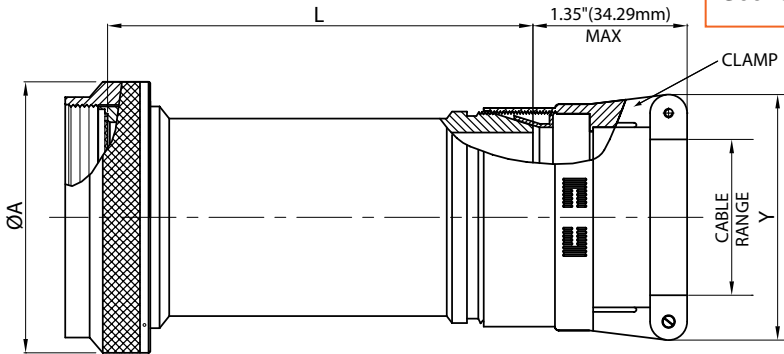


TABLE-A																	
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	0.80	20.32				
		A								2.53	64.26						
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86	1.00	25.40				
		A		2.53	64.26												
	11	01		STD.	11 / B	0.06	1.57			0.13	3.18	0.85	21.59	1.53	38.86	0.80	20.32
				A										2.53	64.26		
02		STD.	0.13	3.18		0.25	6.35	1.53	38.86	1.00	25.40						
		A						2.53	64.26								
03		STD.	0.25	6.35		0.38	9.53	1.53	38.86	1.10	27.94						
		A						2.53	64.26								
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.00	25.40				
		A								2.53	64.26						
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94				
		A								2.53	64.26						
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A								2.53	64.26						
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.10	27.94	1.53	38.86	1.00	25.40				
		A								2.53	64.26						
		B								3.53	89.66						
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A								2.53	64.26						
		B								3.53	89.66						
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75				
		A								2.53	64.26						
		B								3.53	89.66						

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

Non-Environmental EMI/RFI Backshell

Straight, Spin Coupling, cont.



For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

TABLE-A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
17	02	STD.	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	1.53	38.86	1.00	25.40				
		A								2.53	64.26						
		B								3.53	89.66						
	03	STD.		0.25	6.35	0.38	9.53			1.10	27.94	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	04	STD.		0.31	7.92	0.50	12.70			1.20	30.48	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	05	STD.		0.44	11.10	0.63	15.88			1.25	31.75	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
06	STD.	0.56	14.27	0.75	19.05	1.40	35.56	1.53	38.86								
	A							2.53	64.26								
	B							3.53	89.66								
19	03	STD.	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.20	30.48	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	05	STD.		0.44	11.10	0.63	15.88			1.25	31.75	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	06	STD.		0.56	14.27	0.75	19.05			1.40	35.56	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
07	STD.	0.69	17.45	0.88	22.23	1.50	38.10	1.53	38.86								
	A							2.53	64.26								
	B							3.53	89.66								
21	03	STD.	21 / G	0.25	6.35	0.38	9.53	1.50	38.10	1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.20	30.48	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	05	STD.		0.44	11.10	0.63	15.88			1.25	31.75	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	06	STD.		0.56	14.27	0.75	19.05			1.40	35.56	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	07	STD.		0.69	17.45	0.88	22.23			1.50	38.10	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
	08	STD.		0.81	20.62	1.00	25.40			1.65	41.91	1.53	38.86				
		A										2.53	64.26				
		B										3.53	89.66				
												4.53	115.06				

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- Fiber Optics
- High Speed
- Contacts
- EMI Filter
- Transient
- Matrix 2
- 26482
- Matrix 1/Pyle
- 83723
- III
- Pyle
- 26500
- Crimp Rear Release
- Matrix
- 5015
- Class 1
- 22992
- Back-Shell
- Options
- Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- High Speed
- Fiber Optics
- Contacts

- EMI Filter Transient

- 26482
- Matrix 2

- 83723
- III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class L

- Back-Shells

- Options Others

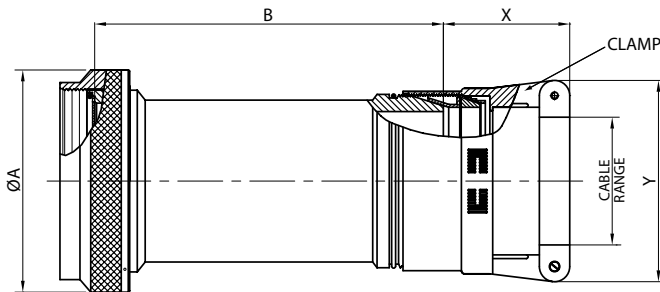
TABLE-A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
23	03	STD.	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.53	38.86	1.10	27.94
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
09	STD.	0.94	23.80	1.13	28.58	1.53	38.86	1.75	44.45				
	A					2.53	64.26						
	B					3.53	89.66						
	C					4.53	115.06						
25	04	STD.	25 / J	0.31	7.92	0.50	12.70	1.75	44.45	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
10	STD.	1.06	26.97	1.25	31.75	1.53	38.86	1.90	48.26				
	A					2.53	64.26						
	B					3.53	89.66						
	C					4.53	115.06						

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number
M85049 / 18 11 W 03 A

MIL Series: M85049 / 18
 Slash Sheet: 18: Straight, Spin Coupling
 Shell Size: See Table-A

Length: See Table-A (Omit for "STD")
 Clamp Size: See Table-A
 Finish: See Table-2 (pg. 486)

TABLE - A

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)				
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM			
				INCH	MM	INCH	MM											
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	1.25	31.75	0.80	20.32			
		A		2.53	64.26	1.00	25.40											
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86			1.25	31.75	1.00	25.40	
		A		2.53	64.26	1.10	27.94											
11	01	STD.		11 / B	0.06	1.57	0.13	3.18	0.85	21.59	1.53	38.86	1.25	31.75	0.80	20.32		
		A			2.53	64.26	1.00	25.40										
	02	STD.			0.13	3.18	0.25	6.35			1.53	38.86			1.25	31.75	1.00	25.40
		A			2.53	64.26	1.10	27.94										
	03	STD.	0.25		6.35	0.38	9.53	1.53			38.86	1.25			31.75	1.10	27.94	
		A	2.53		64.26	1.20	30.48											
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.25	31.75	1.00	25.40			
		A		2.53	64.26	1.10	27.94											
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86			1.25	31.75	1.10	27.94	
		A		2.53	64.26	1.20	30.48											
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.15	29.21	1.53	38.86	1.25	31.75	1.00	25.40			
		A		2.53	64.26	1.10	27.94											
		B		3.53	89.66	1.20	30.48											
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86			1.25	31.75	1.10	27.94	
		A		2.53	64.26	1.20	30.48											
		B		3.53	89.66	1.31	33.27											
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86			1.25	31.75	1.20	30.48	
		A		2.53	64.26	1.31	33.27											
		B		3.53	89.66	1.40	35.56											
		STD.		0.50	12.70	0.63	15.88			1.53	38.86			1.31	33.27	1.25	31.75	
17	02	STD.	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	1.53	38.86	1.25	31.75	1.00	25.40			
		A		2.53	64.26	1.10	27.94											
		B		3.53	89.66	1.20	30.48											
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86			1.25	31.75	1.10	27.94	
		A		2.53	64.26	1.31	33.27											
		B		3.53	89.66	1.40	35.56											
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86			1.25	31.75	1.20	30.48	
		A		2.53	64.26	1.31	33.27											
		B		3.53	89.66	1.40	35.56											
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86			1.31	33.27	1.25	31.75	
		A		2.53	64.26	1.40	35.56											
		B		3.53	89.66	1.50	38.10											
06	STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.40	35.56							
	A	2.53	64.26	1.50	38.10													
	B	3.53	89.66	1.60	40.64													

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Fiber Optics
 High Speed
 Contacts

EMI Filter
 Transient

Matrix 2
 26482

Matrix 1 Pyle
 III
 83723

Pyle
 26500

Crimp Rear Release Matrix
 5015

Class 1
 22992

Back-Shell
 Shells

Options
 Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- High Speed
- Fiber Optics
- Contacts

- EMI Filter Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class L

- Back-Shells

- Options Others

TABLE - A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)			
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM		
				INCH	MM	INCH	MM										
19	03	STD.	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66
07	STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10						
	A											2.53	64.26				
	B											3.53	89.66				
21	03	STD.	21 / G	0.25	6.35	0.38	9.53	1.55	39.37	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66
	07	STD.		0.75	19.05	0.88	22.23			1.53	38.86	1.50	38.10	1.50	38.10		
		A														2.53	64.26
		B														3.53	89.66
	08	STD.		0.88	22.23	1.00	25.40			1.53	38.86	1.63	41.40	1.65	41.91		
		A														2.53	64.26
		B														3.53	89.66
23	03	STD.	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

TABLE – A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM												
23, cont.	07	STD.	23 / H	0.75	19.05	0.88	22.23	1.65	41.91	1.53	38.86	1.50	38.10	1.50	38.10				
		A								2.53	64.26								
		B								3.53	89.66								
		C								4.53	115.06								
	08	STD.		0.88	22.23	1.00	25.40			1.63	41.40	1.65	42.91	1.53	38.86	1.63	41.40	1.65	42.91
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	09	STD.		1.00	25.40	1.13	28.58			1.63	41.40	1.75	44.45	1.53	38.86	1.63	41.40	1.75	44.45
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
25	04	STD.	25 / J	0.38	9.53	0.50	12.70	1.85	46.99	1.53	38.86	1.25	31.75	1.20	30.48				
		A								2.53	64.26								
		B								3.53	89.66								
		C								4.53	115.06								
	05	STD.		0.50	12.70	0.63	15.88			1.31	33.27	1.25	31.75	1.53	38.86	1.31	33.27	1.25	31.75
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	06	STD.		0.63	15.88	0.75	19.05			1.38	35.05	1.40	35.56	1.53	38.86	1.38	35.05	1.40	35.56
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	07	STD.		0.75	19.05	0.88	22.23			1.50	38.10	1.50	38.10	1.53	38.86	1.50	38.10	1.50	38.10
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	08	STD.		0.88	22.23	1.00	25.40			1.63	41.40	1.65	41.91	1.53	38.86	1.63	41.40	1.65	41.91
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	09	STD.		1.00	25.40	1.13	28.58			1.63	41.40	1.75	44.45	1.53	38.86	1.63	41.40	1.75	44.45
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
10	STD.	1.13	28.58	1.25	31.75	1.63	41.40	1.90	48.26	1.53	38.86	1.63	41.40	1.90	48.26				
	A									2.53	64.26								
	B									3.53	89.66								
	C									4.53	115.06								

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

Fiber Optics

High Speed

Contacts

EMI Filter

Transient

Matrix 2

26482

Matrix 1 Pyle

III

83723

Pyle

26500

5015

Crimp Rear Release Matrix

Class I

22992

Back-

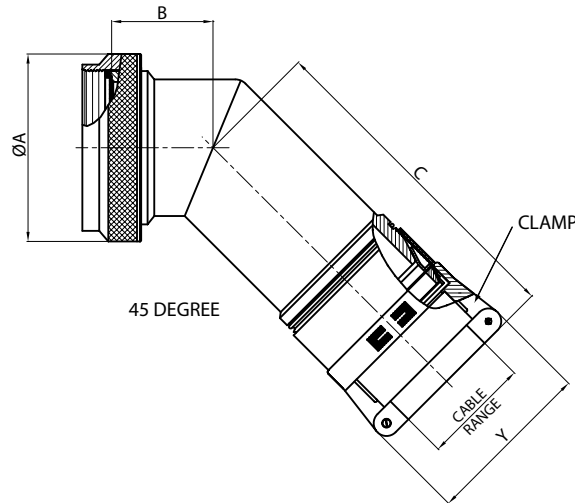
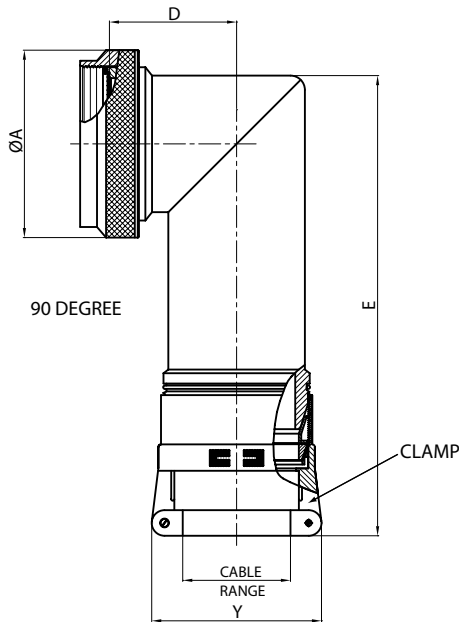
Shells

Options

Others

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number

M85049 / 79 11 W 03

MIL Series ————
 Slash Sheet: ————
 79: 90°, Spin Coupling
 78: 45°, Spin Coupling
 Shell Size: ————
 See Table-B

Clamp Size:
 See Table-B

Finish:
 See Table-2
 (pg. 486)

TABLE - B

MIL PART NUMBER DESIGNATOR		CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
			INCH	MM	INCH	MM												
9	01	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	0.46	11.68	3.15	80.01	0.69	17.53	3.46	87.88	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
11	01	11 / B	0.06	1.57	0.13	3.18	0.85	21.59	0.52	13.21	3.21	81.53	0.78	19.81	3.58	90.93	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
13	02	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	0.58	14.73	3.27	83.06	0.80	20.32	3.60	91.44	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
15	02	15 / D	0.13	3.18	0.25	6.35	1.15	29.21	0.65	16.51	3.36	85.34	0.88	22.35	3.67	93.22	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
17	02	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	0.74	18.80	3.47	88.14	0.93	23.62	3.76	95.50	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

TABLE CONTINUES ON NEXT PAGE

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- High Speed
- Fiber Optics
- Contacts

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723
- III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class L

- Back-Shells

- Options
- Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV

TABLE - B, cont.

MIL PART NUMBER DESIGNATOR		CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
			INCH	MM	INCH	MM												
19	03	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	0.93	23.62	3.66	92.96	1.01	25.65	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
21	03	21 / G	0.25	6.35	0.38	9.53	1.55	39.37	0.93	23.62	3.66	92.96	1.06	26.92	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
23	03	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.02	25.91	3.81	96.77	1.17	29.72	4.04	102.62	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
25	04	25 / J	0.38	9.53	0.50	12.70	1.85	46.99	1.02	25.91	3.81	96.77	1.18	29.97	4.04	102.62	1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
	09	1.00	25.40	1.13	28.58	1.75	44.45											
	10	1.13	28.58	1.25	31.75	1.90	48.26											

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

Fiber Optics

High Speed

Contacts

EMI Filter

Transient

Matrix 2

26482

Matrix 1 Pyle

83723

III

Pyle

26500

5015

Crimp Rear Release Matrix

22992

Class 1

Backshells

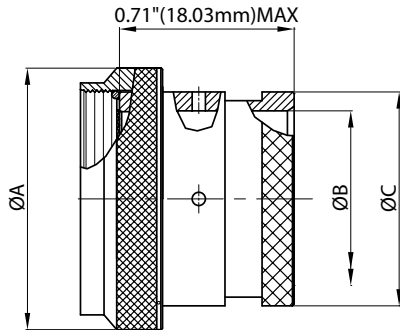
Options

Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number

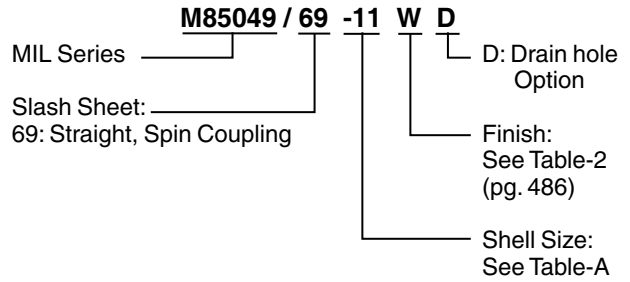


TABLE-A							
MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA. (MAX)		B DIA. (MIN)		C DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM
9	09 / A	0.75	19.05	0.25	6.35	0.53	13.54
11	11 / B	0.85	21.59	0.38	9.53	0.61	15.37
13	13 / C	1.00	25.40	0.50	12.70	0.77	19.66
15	15 / D	1.15	29.21	0.63	15.88	0.84	21.29
17	17 / E	1.25	31.75	0.75	19.05	0.94	23.77
19	19 / F	1.40	35.56	0.81	20.62	1.04	26.47
21	21 / G	1.55	39.37	0.94	23.80	1.22	30.91
23	23 / H	1.65	41.91	1.06	26.97	1.36	34.42
25	25 / J	1.85	46.99	1.19	30.18	1.44	36.65

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

High Speed
Fiber Optics
Contacts

EMI Filter
Transient

26482
Matrix 2

83723
III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class L

Back-Shells

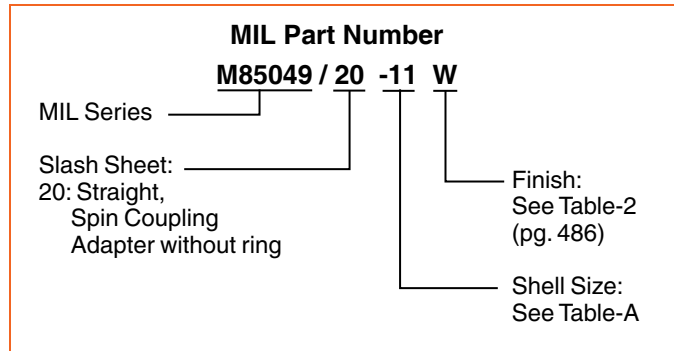
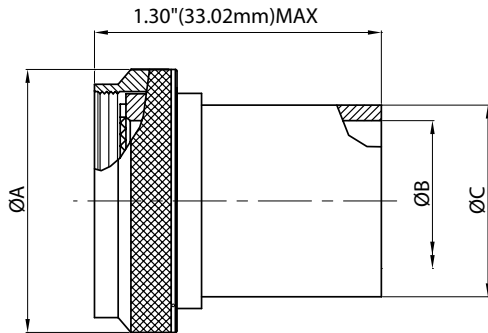
Options
Others

Crimp Ring Adapter Straight, Spin Coupling without Ring

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



Refer to page 544 for ordering details of Ring.

TABLE – A

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B DIA.(MAX)		C DIA.(MAX)	
		INCH	MM	INCH	MM	INCH	MM
9	9 / A	0.75	19.05	0.27	6.73	0.35	8.81
11	11 / B	0.85	21.59	0.34	8.71	0.50	12.65
13	13 / C	1.00	25.40	0.44	11.10	0.51	12.95
15	15 / D	1.10	27.94	0.56	14.27	0.63	16.00
17	17 / E	1.25	31.75	0.69	17.45	0.76	19.30
19	19 / F	1.40	35.56	0.81	20.62	0.89	22.61
21	21 / G	1.50	38.10	0.94	23.80	1.01	25.65
23	23 / H	1.65	41.91	1.05	26.57	1.13	28.70
25	25 / J	1.75	44.45	1.13	28.58	1.20	30.53

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

Fiber

Optics

High Speed

Contacts

EMI Filter

Transient

Matrix 2

26482

Matrix Pyle

III

83723

Pyle

26500

5015

Crimp Rear Release Matrix

Class 1

22992

Back-

Shells

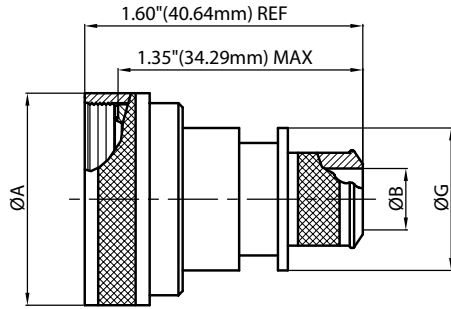
Options

Others

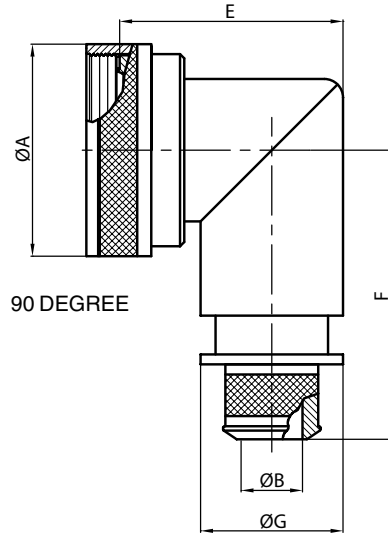
For Connector Family L

38999 Series III, IV

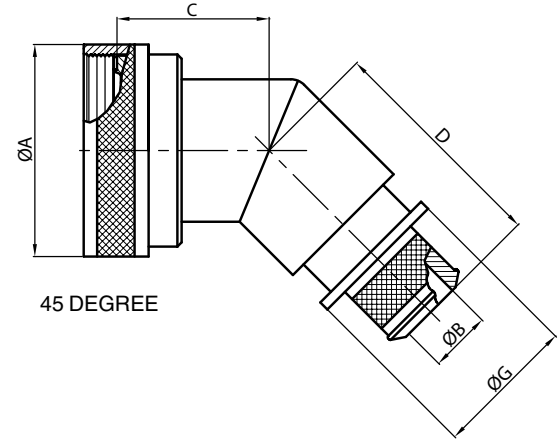
Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



STRAIGHT



90 DEGREE



45 DEGREE

MIL Part Number

M85049 / 88 -11 W 03

MIL Series

Slash Sheet:

88: Straight, Self-Lock
90: 90°, Self-Lock
89: 45°, Self-Lock

Entry Size:
See Table-A

Finish:
See Table-2
(pg. 486)

Shell Size:
See Table-A

TABLE-A

MIL PART NUMBER DESIGNATOR		CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX.)		G MAX	
CONNECTOR SHELL SIZE	ENTRY SIZE		INCH	MM	+0.00	+0.00	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
					-0.02	-0.50										
9	02	09 / A	0.86	21.82	N/A	N/A	1.01	25.65	1.16	29.46	1.38	34.93	1.42	35.99	N/A	N/A
	03				0.26	6.60									0.56	14.22
11	02	11 / B	0.99	25.04	N/A	N/A	1.03	26.16	1.19	30.23	1.44	36.50	1.48	37.59	N/A	N/A
	03				0.32	8.13									0.63	16.00
13	02	13 / C	1.16	29.36	0.32	8.13	1.06	26.92	1.21	30.73	1.56	39.67	1.55	39.45	0.63	16.00
	03				0.45	11.43									0.75	19.05
15	02	15 / D	1.28	32.54	0.45	11.43	1.08	27.43	1.24	31.50	1.69	42.85	1.61	41.00	0.75	19.05
	03				0.57	14.48									0.89	22.61
17	02	17 / E	1.41	35.71	0.51	12.95	1.11	28.19	1.26	32.00	1.75	44.45	1.68	42.62	0.82	20.83
	03				0.64	16.26									0.95	24.13
19	02	19 / F	1.52	38.51	0.64	16.26	1.12	28.45	1.27	32.26	1.88	47.63	1.77	45.03	0.95	24.13
	03				0.76	19.30									1.07	27.18
21	02	21 / G	1.64	41.68	0.64	16.26	1.15	29.21	1.30	33.02	1.94	49.23	1.80	45.62	0.95	24.13
	03				0.82	20.83									1.13	28.07
23	02	23 / H	1.77	44.86	0.70	17.78	1.17	29.72	1.33	33.78	2.06	52.37	1.86	47.22	1.02	25.99
	03				0.95	24.13									1.26	32.00
25	02	25 / J	1.89	48.03	0.76	19.30	1.20	30.48	1.35	34.29	2.13	53.98	1.92	48.74	1.07	27.18
	03				1.01	25.65									1.32	33.53

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- High Speed
- Fiber Optics
- Contacts
- EMI Filter Transient
- 26482
- Matrix 2
- 83723
- III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release Matrix
- 22992
- Class L
- Back-Shells
- Options Others

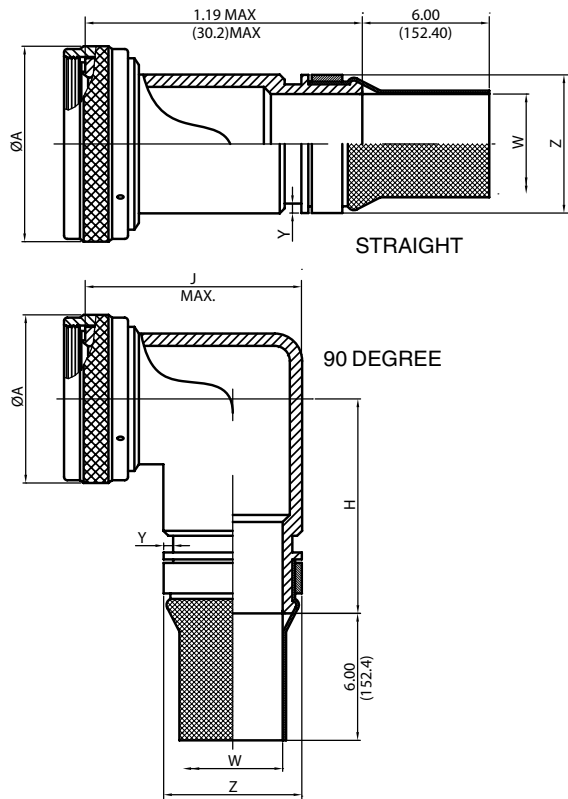
Pre-Shield Adapter

Straight, 90°, Spin Coupling/Self-Lock with Shield

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number

M85049 / 115 - 11 T W 03 -6 D

- MIL Series: M85049 / 115
- Slash Sheet: 115: Straight, 117: 90°
- Coupling: -: Spin Coupling, S: Self-Lock
- Shell Size: See Table-A
- Drain Hole Option: D
- Shield Length: 6 inches min. to 18 inches max. in 1 inch increments (6: 6 inch, 7: 7 inch, so on)
- Entry Size: See Table-A & B
- Finish: See Table-2 (pg. 486)
- Shield Finish: (Material: Copper) K: Nickel, T: Tin

PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		H (MAX)		J (MAX)	
SHELL SIZE-MIL	ALLOWABLE ENTRY SIZE			INCH	MM	INCH	MM	INCH	MM
	09	-	01	9 / A	0.860	21.84	1.73	43.94	0.88
11	01	03	11 / B	0.980	24.89	1.85	46.99	1.00	25.40
13	01	05	13 / C	1.160	29.46	1.87	47.50	1.13	28.70
15	03	07	15 / D	1.280	32.51	1.94	49.28	1.31	33.27
17	05	09	17 / E	1.410	35.81	2.03	51.56	1.50	38.10
19	06	10	19 / F	1.520	38.61	2.20	55.88	1.75	44.45
21	08	12	21 / G	1.640	41.66	2.20	55.88	1.75	44.45
23	09	13	23 / H	1.770	44.96	2.31	58.67	2.00	50.80
25	10	14	25 / J	1.890	48.01	2.31	58.67	2.00	50.80

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

ENTRY SIZE	W ±0.020	W ±0.508	Y +0.008 -0.000	Y +0.200 -0.000	Z MAX	Z MAX
	INCH	MM	INCH	MM	INCH	MM
01	0.250	6.350	0.044	1.12	0.56	14.22
02	0.312	7.920	0.044	1.12	0.63	16.00
03	0.375	9.530	0.044	1.12	0.69	17.53
04	0.438	11.130	0.044	1.12	0.75	19.05
05	0.500	12.700	0.044	1.12	0.82	20.83
06	0.562	14.270	0.044	1.12	0.89	22.61
07	0.625	15.880	0.044	1.12	0.95	24.13
08	0.688	17.480	0.044	1.12	1.02	25.91
09	0.750	19.050	0.069	1.75	1.07	27.18
10	0.812	20.620	0.069	1.75	1.13	28.70
11	0.875	22.230	0.069	1.75	1.19	30.23
12	0.938	23.830	0.069	1.75	1.26	32.00
13	1.000	25.400	0.069	1.75	1.32	33.53
14	1.125	28.575	0.069	1.75	1.47	37.34

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

Fiber Optics
High Speed
Contacts

EMI Filter
Transient

Matrix 2
26482

Matrix Pyle
III
83723

Pyle
26500

Crimp Rear Release Matrix
5015

Class 1
22992

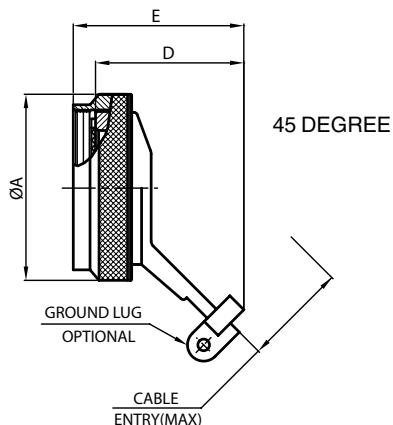
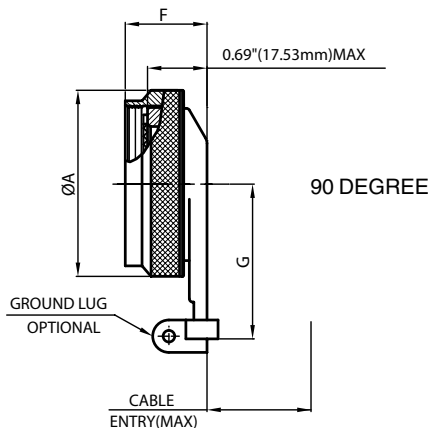
Back-Shells

Options
Others

For Connector Family L

38999 Series III, IV

Connector Family "L", includes MIL-DTL-38999 Series III and Series IV



MIL Part Number

M85049 / 16 - 11 W

MIL Series: M85049 / 16
 Slash Sheet: 16: 90°
 15: 45°
 Finish: See Table-2 (pg. 486)
 Shell Size: See Table-A
 Coupling:
 S: Self-Lock
 G: Self-Lock with grounding Lug
 -: Non Self-Lock

TABLE - A

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE ENTRY MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	9 / A	0.86	21.79	1.03	26.16	1.43	36.32	0.99	25.15	1.22	30.99	0.26	6.71
11	11 / B	0.98	24.99	1.03	26.16	1.43	36.32	0.99	25.15	1.29	32.77	0.39	9.96
13	13 / C	1.16	29.39	1.03	26.16	1.43	36.32	0.99	25.15	1.62	41.15	0.51	12.85
15	15 / D	1.28	32.49	1.09	27.69	1.93	49.02	0.99	25.15	1.66	42.16	0.63	16.03
17	17 / E	1.41	35.71	1.11	28.19	1.93	49.02	0.99	25.15	1.72	43.69	0.76	19.20
19	19 / F	1.52	38.51	1.21	30.73	2.03	51.56	0.99	25.15	1.72	43.69	0.85	21.46
21	21 / G	1.64	41.71	1.26	32.00	2.09	53.09	0.99	25.15	1.79	45.47	0.97	24.64
23	23 / H	1.77	44.91	1.30	33.02	2.09	53.09	0.99	25.15	1.85	46.99	1.10	27.81
25	25 / J	1.89	47.98	1.34	34.04	2.24	56.90	0.99	25.15	1.91	48.51	1.22	30.99

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.