



MILITARY & AEROSPACE EDITION

EV Series
MIL-DTL-83723 Series III
MILITARY STYLE CONNECTORS

- IP67 Rated Waterproof Connectors
- EMI-RFI Environmental Backshells
- Covers, Gaskets, Contacts, Tooling

About Us

MILNEC INTERCONNECT SYSTEMS is a leader in the design, manufacture, and supply of high-performance cylindrical interconnect systems. From research stations in the Antarctic to spacecraft on the plains of Mars, our high-reliability connector systems conquer the most demanding environments. Milnec is a supplier to leading companies in 24 countries in the following industries:

- Military & Defense
- Aerospace & Space
- Railway & Mass Transit
- Industrial & Heavy Equipment
- Alternative Energy, Nuclear, Oil & Gas



Logistics Solutions for Global Applications

Global logistics and support means we deliver products on time every time to any destination. To support your immediate requirements, we have extensive inventories, making most systems readily available for today's compressed design and production schedules. On average, custom connector solutions made to your exact configuration ship within seven days from the time of order placement.

- Worldwide shipping (restricted to NATO countries only)
- Web access to inventory, prices, & delivery information
- A large stock of popular parts for greater availability
- Competitive pricing and short lead times
- Impeccable customer service & technical support

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U.S. Military Cage Code: 6STX5

NAICS Code: 423690

High Reliability—Simplified

Just because your interconnect problem is complicated does not mean acquiring the solution has to be. Milnec connector systems and our "all-in-one" kits provide engineers the most complete and professional connector solutions with ease and technical clarity.



- Complete, high-reliability solutions
- Simple to understand technical data & configurations
- Online part builder tools, drawings, & documentation
- Field installable & serviceable

Performance With Environmental Responsibility

RoHS compliant products are available to support environmental responsibility and legislative conformity. Through simple modification codes, Milnec provides a wide variety of material options to easily provide customers with fully compliant and eco-friendly connector components.



- RoHS compliant materials & finishes
- Simple material modification codes
- Lead-free solder contacts

Highest Manufacturing Quality

We invest in the finest equipment and modern production processes to ensure that our connectors will exceed your quality and performance expectations. Our production processes include advanced computer numerical control machining, cosmetic and metal finishing, heat treatment, and stainless steel passivation.



- Traceability on 100% of the parts
- Quick production lead times
- Quantity support from R&D to production
- "Just-in-time" delivery, kitting, & special packaging
- Rapid tooling & prototyping for custom designs

Features & Benefits

EV Series • MIL-DTL-83723 Series III Type Connectors

M83723 Series III Style Connectors

The EV Series of connectors is based on the rugged MIL-DTL-83723 Series III specification and is fully compatible with all military and commercial derivatives. EV connectors offer unparalleled coupling options, with both threaded and bayonet coupling available, as well as many mounting styles. EV plugs come with either self-locking coupling rings, for reliability in high-vibration environments, or grounding fingers for increased RFI/EMI protection. A wide variety of contact arrangements makes the EV Series a reliable solution for all commercial and military aerospace applications that demand high-performance connectors.

- Self-locking plug
- Plug with RFI grounding fingers
- Bayonet & threaded coupling available
- Visible inspection line
- MIL-DTL-83723 Series III compatible
- Compatible with many MIL-C-26500 connectors



Contact Flexibility for Aerospace Applications

The EV Series provides flexibility in contact design, density, and shell size for modern aerospace applications. EV connectors accommodate contact sizes #12, #16, and #20, and feature arrangements with up to 61 x #20 contacts. In addition to power contacts, thermocouple contacts are also available in many popular sizes and material types.



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IP67 Environmental Protection

The EV Series offers raised moisture barriers around each contact, which mate into a chamfered dielectric insert that provides individual contact sealing. Cable sealing over a wide range of wire diameters is provided by a triple wire seal in each cavity at the rear of the connector to ensure environmental protection. Connector shells offers excellent component corrosion resistance with standard olive drab cadmium and electroless nickel plating options.

- Moisture resistance comparable to MIL-PRF-7808, MIL-PRF-23699, MIL-PRF-5606, SAE ASM1424 Type 1
- Moisture barriers protect individual contacts
- Triple wire seal over cable bundle
- IP67 rated for environmental protection



Bayonet & Threaded Coupling Available

The EV Series offers both threaded and bayonet coupling for greater design flexibility in modern aerospace systems. Bayonet connectors feature “quick-disconnect” mating with just a one 360 degree rotation of the coupling ring.

Complete IP67 Rated Waterproof Connector Kits

To give your connectors true IP67 environmental protection, they should be used in conjunction with matching sealing accessories. The EV Series offers a wide selection of protective accessories for mission-critical applications, including EMI/RFI environmental backshells and strain reliefs.

- Mounting brackets and sealing screws
- Protective covers with gaskets
- Stowage receptacles
- Mounting gaskets



Features & Benefits

Plugs

- With RFI grounding fingers
- With self-locking clutch

Receptacles

- Wall mount
- Jam nut

Backshells

- Strain relief
- EMI/RFI environmental
- Shrink boots
- EMI/RFI banding adapter and shrink boot

Contacts

- Crimp power
- Thermocouple

Inserts

- Heat & fluid resistant
- 29 insert combinations
- 6 available key positions
- 6 available insert rotations

Accessories

- Protective cover with sash chain
- Stowage receptacle
- Mounting gasket
- Mounting bracket with sealing screws

Material

- Aluminum
- Stainless steel

Finishes

- Olive drab cadmium
- Electroless nickel
- Hardcoat anodize
- RoHS compliant finishes available

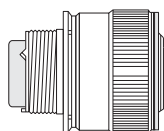
Coupling

- Bayonet coupling
- Threaded coupling

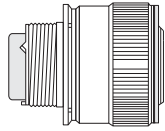
Component Overview

EV Series • MIL-DTL-83723 Series III Type Connectors

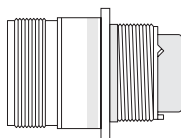
Threaded



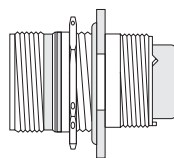
Plug
p. T-20



Self-Locking Plug
p. T-21

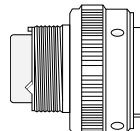


Wall Mount Receptacle
p. T-22

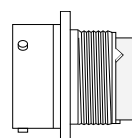


Jam Nut Receptacle
p. T-23

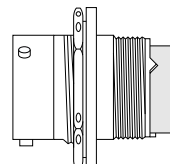
Bayonet



Plug
p. T-16

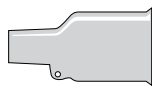


Wall Mount Receptacle
p. T-17



Jam Nut Receptacle
p. T-18

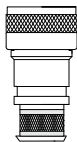
Backshells



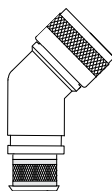
Shrink Boots
Shrink Boot
p. T-44



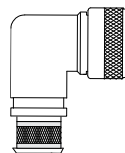
90° Shrink Boot
p. T-45



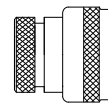
EMI/RFI Banding Boot Adapters
Straight
p. T-47



45°
p. T-47

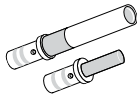


90°
p. T-47

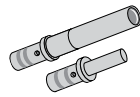


Shrink Boot Adapter
p. T-46

Contacts

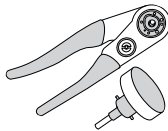


Standard
p. T-9

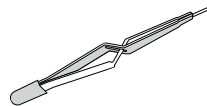


Thermocouple
p. T-9

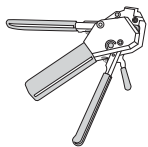
Tools



Crimper & Positioner
p. T-9



Insertion/Extraction
p. T-9



Banding Tool
p. T-57

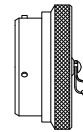


Band
p. T-57

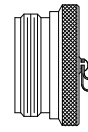


Heat Gun
p. T-56

Covers



Bayonet Covers
p. T-48

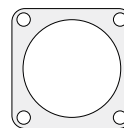


Threaded Covers
p. T-49

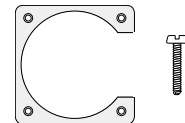


Stowage Receptacle
p. T-51

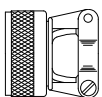
Mounting



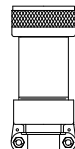
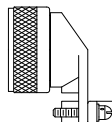
Gasket
p. T-52



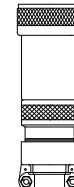
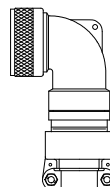
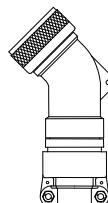
Mounting Bracket
p. T-53



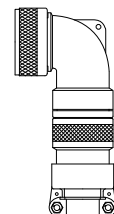
Strain Relief
Straight p. T-24
90° p. T-25



Environmental
Straight p. T-26
45° p. T-30
90° p. T-32



EMI/RFI Environmental
Straight p. T-35
45° p. T-38
90° p. T-40



Series Specifications

EV Series • MIL-DTL-83723 Series III Type Connectors

Performance Specifications

Built to meet or exceed MIL-DTL-83723 specifications
Guaranteed fully compatible and interchangeable with respect to physical and performance characteristics with all existing MIL-DTL-83723 Series III military and commercial derivatives

Environmental Characteristics

Temperature Range

-85° to +392°F (-65° to +200°C)

Service life varies with the maximum internal hot spot temperature resulting from any combination of electrical load or ambient temperature:

77°F (25°C): Continuous

221°F (105°C): 45,000 hours

392°F (200°C): 1,000 hours

Water Pressure

IP67 rating (environmental sealing) when used in conjunction with proper sealing accessories
Fully submersible to 3.3 ft (1m) for minimum of 30 min

Air Leakage Rate

Environmental

Air leakage not to exceed 1 inch³/hr (4.55 x10⁻³ cm³/sec) at 30 psi (2.11 kg/cm²) pressure differential with all contact cavities filled

Salt Spray Rating

See Materials & Finishes, p. T-10

Humidity

Mated connectors shall maintain an insulation resistance of 100 megohms or greater at 77°F (25°C) with 95% humidity for duration of 20 days

Chemical Resistance to Fluids

20 hour full immersion (unmated) in hydraulic fluid and lubricating oil without damage or material degradation

Physical Characteristics

Coupling

Bayonet

3-point bayonet, stainless steel bayonet pins spaced at 120° on receptacle shells, corresponding ramps on plug coupling ring with locking detent 1/3 turn to couple and uncouple

Threaded

Threaded (A-Threads), single-start, 4 turns to couple

Threaded Coupling Torque

Engagement & Disengagement Force (max / min)

Shell Size 8: 1.00 ft-lb_f (1.36 N-m) / .67 ft-lb_f (0.91 N-m)

Shell Size 10: 1.17 ft-lb_f (1.59 N-m) / .67 ft-lb_f (0.91 N-m)

Shell Size 12: 1.33 ft-lb_f (1.80 N-m) / .83 ft-lb_f (1.13 N-m)

Shell Size 14: 1.67 ft-lb_f (2.26 N-m) / 1.00 ft-lb_f (1.36 N-m)

Shell Size 16: 2.00 ft-lb_f (2.71 N-m) / 1.33 ft-lb_f (1.80 N-m)

Shell Size 18: 2.50 ft-lb_f (3.39 N-m) / 1.83 ft-lb_f (2.48 N-m)

Shell Size 20: 3.33 ft-lb_f (4.51 N-m) / 2.33 ft-lb_f (3.16 N-m)

Shell Size 22: 3.83 ft-lb_f (5.19 N-m) / 2.92 ft-lb_f (3.96 N-m)

Shell Size 24: 4.58 ft-lb_f (6.21 N-m) / 3.33 ft-lb_f (4.51 N-m)

Polarization

Single master key and keyway on top position of shell
Four minor keys and keyways on shell

Insert Arrangements

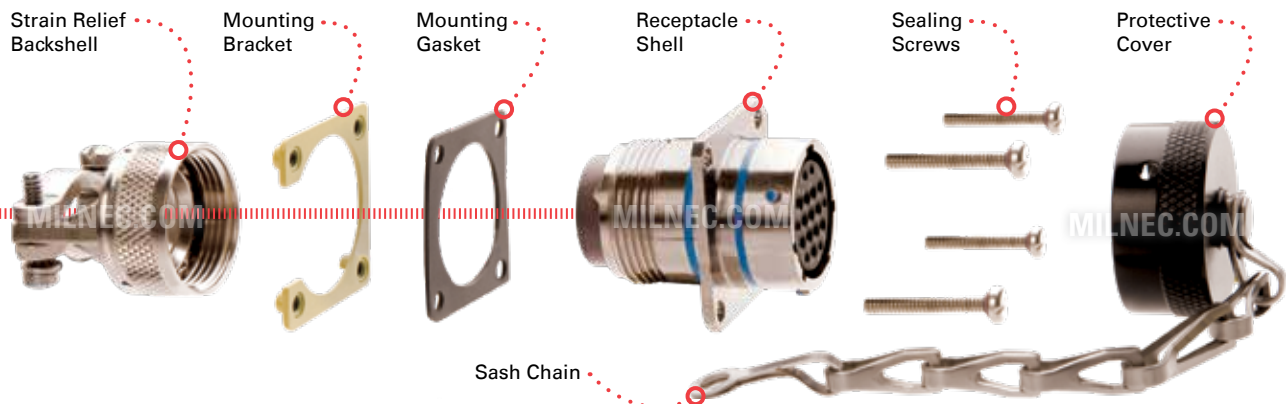
29 standard, custom inserts available

Insert Rotations

Normal polarization (N), plus 5 alternate insert rotational polarizations (1, 2, 3, 4, 5)

Keying Positions

Normal keying (N), plus 5 alternate keying positions (Y, 6, 7, 8, 9)



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Endurance Characteristics

Coupling Cycles

- 500 coupling cycles (minimum) for bayonet connectors
- 250 coupling cycles (minimum) for threaded connectors

Shock

- One shock in each of the three major axes, having a 100g peak for a six ms duration (half-sine pulse)

Vibration

- Random vibration at 10 to 2,000Hz (15g's) with a .06 inch double amplitude and a 20g peak

Material Characteristics

Shell

Environmental

- Aluminum, solid, one piece, seamless construction

Shell Plating (Standard Finishes)

W Finish

- Electrically conductive cadmium plate finish with an olive drab chromate after-treat for additional corrosion resistance (500 hr salt spray rating)

N Finish

- Electrically conductive electroless nickel plating (48 hr salt spray rating)

RFI Grounding Fingers

- Corrosion resistant copper alloy

Shell Conductivity

- Maximum shell-to-shell conductivity potential drop shall not exceed the following:

With RFI Grounding Fingers

- 5 millivolts across assembly (N or W finish)

Without RFI Grounding Fingers

- 200 millivolts across assembly (N or W finish)

Insert

- Neoprene elastomer
- Non-removable and mechanically bonded to shell

Protective Cover Chain

- Passivated stainless steel, sash chain able to withstand a 25 lb (11.3 kg) tensile force without damage

Contact Characteristics

Contact Design

- Removable, rear-release crimp contacts

Contact Sizes

- #12, #16, #20

Contacts

- Copper alloy

Contact Plating

- Gold plate, 50 pinches (1.27 μ m) minimum

Max Number of Contacts

- 3 to 61 standard, custom inserts available

Max Contact Resistance

- 9 milliohm maximum resistance

Max Voltage Drop

- <55 millivolt maximum drop (initial)

Contact Retention

- Pin and socket contacts are designed to resist severe vibration and repeated connection and disconnection

Electrical Characteristics

Current Rating

- 23 amps (test current) at 68°F (20°C)

Max Operating Voltage

- 600 VAC (RMS) at sea level

Insulation Resistance

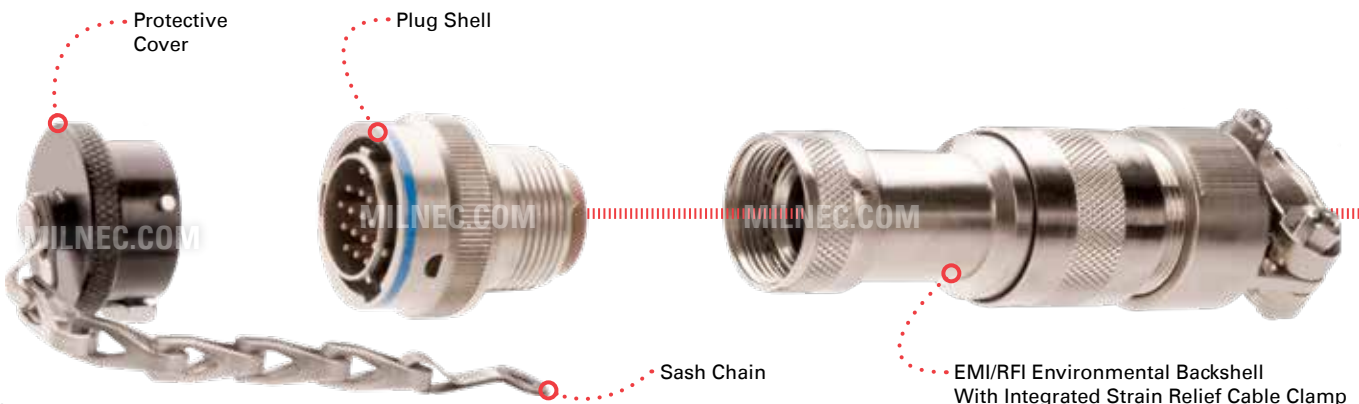
- >5,000 megohms at 77°F (25°C)

Wire Size

- 12 to 24 (AWG)

Wire Sealing Range

- Designed for individual wire sealing
- Sealing is only guaranteed if wires meet MIL-W-5086 or within permitted ranges



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Contact Specifications

EV Series • MIL-DTL-83723 Series III Type Connectors

Wire & Crimp Dimensions

Contact Size	Wire Range		Potential Drop (Millivolts)	Crimp Well Diameter	Min Crimp Well Depth	Finished Wire Diameter Sealing Range		Contact Retention Min Axial Load Pounds (Newtons)
	AWG	Dia				Min	Max	
#20	20, 22, 24	.020–.032 (.51–.81)	35	.049 (1.24)	.155 (3.94)	.040 (1.02)	.083 (2.11)	20 (89.0)
#16	16, 18, 20	.032–.050 (.81–1.29)	25	.067 (1.70)	.250 (6.35)	.053 (1.35)	.103 (2.62)	25 (111.2)
#12	12, 14	.064–.080 (1.62–2.05)	25	.100 (2.50)	.250 (6.35)	.097 (2.46)	.158 (4.01)	30 (133.4)

Dimensions are in inches (mm) unless otherwise noted.

Current Rating By Contact Size & Wire Size

Wire Size (AWG)	Contact Size		
	#20	#16	#12
24	3A		
20	7.5A	7.5A	
16		13A	
14			17A
12			23A

Test ratings only. A connector cannot withstand maximum current through all contacts continuously. Please note that the establishment of electrical safety factors is left entirely in the designer's hands, since he or she is in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

Coupling Torque

Shell Size	Maximum Engagement & Disengagement	Minimum Disengagement
8	8 (.904)	
10	10 (1.13)	1 (.113)
12	14 (1.58)	2 (.266)
14	17 (1.92)	
16	23 (2.60)	4 (.452)
18	26 (2.94)	
20	31 (3.50)	6 (.678)
22		
24	38 (4.29)	7 (.791)

Units are in inch pounds (Newton meters).

Contact Derating Specifications

Service Rating	Max Operating Voltage Sea Level		Test Voltage			
	AC (RMS)	DC	Sea Level AC (RMS)	50,000 ft AC (RMS)	70,000 ft AC (RMS)	110,000 ft AC (RMS)
I	600	850	1,500	500	375	200

Test ratings only. A connector cannot withstand maximum current through all contacts continuously. Please note that the establishment of electrical safety factors is left entirely in the designer's hands, since he or she is in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

Torque Values For Accessory Threads

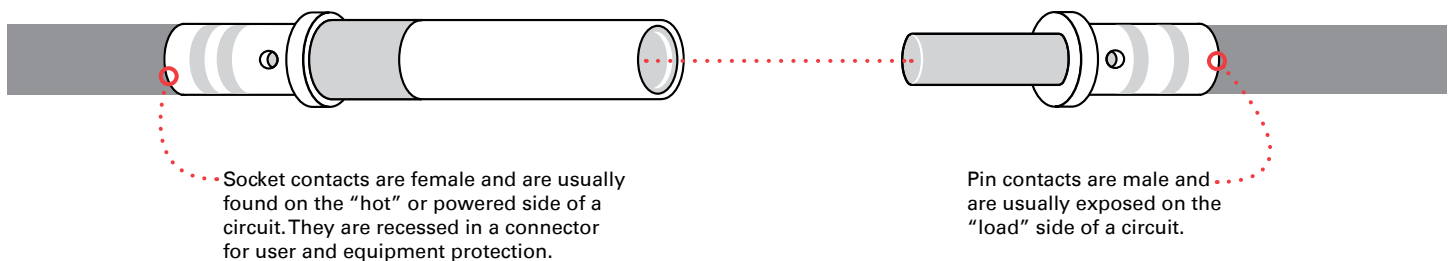
Shell Size	Recommended Torque	
	Min	Max
8	51 (5.8)	61 (6.9)
10	71 (8.0)	81 (9.2)
12	103 (11.6)	113 (12.8)
14	111 (12.5)	121 (13.7)
16	111 (12.5)	121 (13.7)
18	111 (12.5)	121 (13.7)
20	131 (14.8)	141 (15.9)
22	131 (14.8)	141 (15.9)
24	131 (14.8)	141 (15.9)

Units are in inch pounds (Newton meters).

Torque Values For Cable Clamp Screws

Screw Size	Recommended Torque	
	Min	Max
#2-56	1.5 (.2)	2.5 (.3)
#4-40	3.5 (.4)	4.5 (.5)
#6-32	5 (.6)	7 (.8)
#8-32	7 (.8)	9 (1.0)
#10-32	9 (1.0)	11 (1.2)
#250-20	11 (1.2)	13 (1.5)

Units are in inch pounds (Newton meters).



Rev. 2314

Standard Contacts, Sealing Plugs, & Tooling

Contact Size	Contact Style	Part Number	Wire Size (AWG)	Wire Range (Dia)	Jacket Strip Length	Crimping Tool	Positioner (Turret)	Insertion Tool	Extraction Tool
#20	Pin	EVPP20	20, 22, & 24	.020–.032 (.51–.81)	.157 (4.00)	TK101A (Hand Crimper)	TP102	TN205	TX206
	Socket	EVSS20							
	Sealing Plugs	EVSP20							
#16	Pin	EVPP16	16, 18, & 20	.032–.050 (.81–1.29)	.236 (6.00)			TN207	TX208
	Socket	EVSS16							
	Sealing Plugs	EVSP16							
#12	Pin	EVPP12	12 & 14	.064–.080 (1.62–2.05)	.236 (6.00)			TN209	TX210
	Socket	EVSS12							
	Sealing Plugs	EVSP12							

Dimensions are in inches (mm) unless otherwise noted.

Thermocouple Contacts & Tooling

Contact Size	Contact Style	Part Number	Wire Size (AWG)	Wire Range (Dia)	Jacket Strip Length	Crimping Tool	Positioner (Turret)	Insertion Tool	Extraction Tool
#20 Alumel	Pin	EVPA20	20, 22, & 24	.020–.032 (.51–.81)	.157 (4.00)	TK101A (Hand Crimper)	TP102	TN205	TX206
	Socket	EVSA20							
#20 Chromel	Pin	EVPR20							
	Socket	EVS20							
#20 Constantan	Pin	EVPK20							
	Socket	EVSK20							
#20 Copper	Pin	EVPB20							
	Socket	EVSB20							
#20 Iron	Pin	EVPE20							
	Socket	EVSE20							
#16 Alumel	Pin	EVPA16	16, 18, & 20	.032–.050 (.81–1.29)	.236 (6.00)	TK101A (Hand Crimper)	TP102	TN207	TX208
	Socket	EVSA16							
#16 Chromel	Pin	EVPR16							
	Socket	EVS16							
#16 Constantan	Pin	EVPK16							
	Socket	EVSK16							
#16 Copper	Pin	EVPB16							
	Socket	EVSB16							
#16 Iron	Pin	EVPE16							
	Socket	EVSE16							

Dimensions are in inches (mm) unless otherwise noted.

EV Series Crimp Contacts

#20 

#16 

#12 



Milnec's versatile crimp tool with turret positioner allows the termination of all three contact sizes in the series (#12, #16, #20).

Materials & Finishes

EV Series • MIL-DTL-83723 Series III Type Connectors

EV Series Finishes

A connector's finish does more than simply provide good looks. The finish is a connector's first line of defense. It provides enhanced corrosion resistance and can be made conductive to provide electrical continuity across connector shells for EMI/RFI shielding applications. Olive drab cadmium and electroless nickel are the standard

finishes for the EV Series. Both finishes offer durability and corrosion resistance and will match the aesthetic design of most applications. In addition to the standard finishes, a number of specialty finishes are available for the EV Series, including RoHS compliant finishes for environmentally friendly designs. ■

Standard EV Series Materials & Finishes

Finish Code	Finish	Electrically Conductive	RoHS Compliant	Appearance	Shell Material	Salt Spray Rating	Recommended Operating Temperature Range
W	Olive Drab Cadmium	✓		Drab Olive Green	Aluminum	500 hr	-67° to +257°F (-55° to +125°C)
N	Electroless Nickel	✓	✓	Bright Metal	Aluminum	48 hrs	-67° to +392°F (-55° to +200°C)
S	Passivated	✓	✓	Matte Metal	SST Steel	1,000 hrs	-67° to +392°F (-55° to +200°C)
B	Hardcoat Anodize		✓	Grey to Black	Aluminum	336 hrs	-67° to +257°F (-55° to +125°C)

Special EV Series Materials & Finishes *

Finish Code	Finish	Electrically Conductive	RoHS Compliant	Appearance	Shell Material	Salt Spray Rating	Recommended Operating Temperature Range
C			✓				
CC	Zinc Cobalt	✓	✓	Black	Aluminum	125 hrs	-67° to +257°F (-55° to +125°C)
T	Hard Anodic		✓	Grey	Aluminum	500 hrs	-67° to +257°F (-55° to +125°C)

* Please consult an authorized distributor for lead time information and minimum quantity requirements for special order finishes.



Electroless Nickel (Aluminum)

A general use standard finish in the EV Series. This smooth mirror-like finish is durable and impact resistant, with moderate corrosion resistance. Due to its excellent conductivity, electroless nickel is the preferred finish for EMI/RFI shielding applications. It has a recommended operating range of -67° to +257°F (-55° to +125°C).

Olive Drab Cadmium (Aluminum)

A standard finish in the EV Series of connectors. It is electrically conductive for applications that require EMI/RFI shielding. Olive drab cadmium has excellent resistance to corrosion with a 500 hour salt spray rating. However, the finish is more susceptible to scratches from impact.

RoHS Compliant Parts

Milnec provides a full offering of RoHS compliant finishes in conductive and non-conductive versions to best suit your application requirements.



Please consult the latest European Union general and regional regulations to ensure materials are appropriate for your application and compliance requirements.

EV Series Shell Keying

Alternate key positions should be used to avoid cross-mating of connectors with the same (or similar) insert pattern that are in close proximity to one another, such as on a high-density control panel. A plug with a given key position will only mate with a receptacle with the same number.

For example, receptacle "N" will only mate with plug "N," and a second receptacle with a "6" keying will only mate with the "6" cable plug. In this manner, cross-mating of similar connectors by accident becomes impossible. ■



EV Series Alternate Rotations

Alternate rotations of the insert are also available in the EV Series but should only be used as replacements for old designs. New designs should use shell keying. Alternate rotations were used as another option to avoid cross-mating of connectors with the same (or similar) insert pattern that are installed closely to one another. Just as with key positions, a plug with a given rotation number will only mate with a receptacle with the same number. The diagram below offers an example of alternate rotations. The centerline of the shell in the normal or "N" rotation matches the centerline of the master keyway. In the alternate rotations (1, 2, 3, 4, 5) the insert rotates relative to the centerline of the keyway. E° in the diagram and corresponding table describes the centerline for normal and the number of degrees away from center for each alternate rotation. Socket inserts are rotated clockwise; pin inserts are rotated counter-clockwise. ■

Alternate Keying Positions

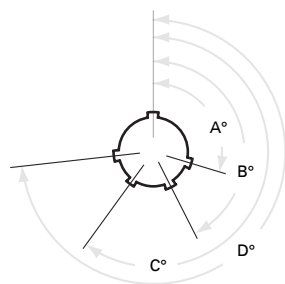
Shell Size	Keyway Arrangement	A°	B°	C°	D°
8 to 24	N	105°	140°	215°	265°
8 & 10	6	102°	132°	248°	320°
	7	80°	118°	230°	312°
	8	35°	140°	205°	275°
	9	64°	155°	234°	304°
10 only	Y*	25°	115°	220°	270°
12, 14, 16, 18, 20, 22, 24, & 28	6	18°	149°	192°	259°
	7	92°	152°	222°	342°
	8	84°	152°	204°	334°
	9	24°	135°	199°	240°

* Position Y supersedes inactive positions 10 and Z designations. Ref. MIL-STD-1554.

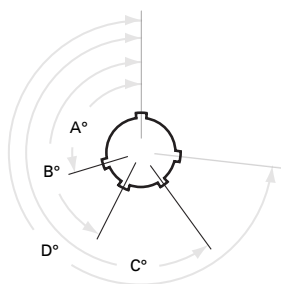
Alternate Rotations of Insert

Shell Size	Rotation	Insert Position E°
8 & 10	N	0°
	1	10°
	2	20°
	3	30°
	4	40°
	5	50°
12, 14, 16, 18, 20, 22, & 24	N	0°
	1	10°
	2	20°
	3	30°
	4	40°
	5	50°

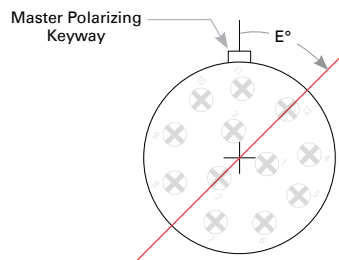
Positions 1-5 are inactive for new designs per MIL-STD-1554.



Plug
(front face shown)



Receptacle
(front face shown)



Socket insert shown
(pin insert is opposite)

Part Builder

EV Series • MIL-DTL-83723 Series III Type Connectors

How to Build Your EV Connector Part Number

A part number is comprised of a string of characters that represent the different elements of a connector. High-performance connectors are built to order from component form using a unique part number as a blueprint to specify particular characteristics. Each modifier of the part number represents a particular configuration.

Below is an example part number for a EV Series bayonet connector that designates, 1) EV Series wall mount receptacle, 2) electroless nickel finish over aluminum, 3) 22-55 insert arrangement, 4) pin contacts, 5) normal rotation, 6) EMI/RFI environmental backshell (dash number indicates backshell size), and 7) integrated accessory kit. ■

EVB0 N 22-55 P N - R2(150) - 03

1

2

3

4

5

6

7

1 Connector Shell Styles

Bayonet Shells

- EVB6** Plug, p. T-16
- EVB5** Plug with RFI grounding fingers, p. T-16
-
- EVB0** Wall mount receptacle, p. T-17
- EVB7** Jam nut receptacle, p. T-18

Threaded Shells

- EVT6** Plug, p. T-20
- EVT5** Plug with RFI grounding fingers, p. T-20
- EVT9** Self-locking plug, p. T-21
-
- EVT0** Wall mount receptacle, p. T-22
- EVT7** Jam nut receptacle, p. T-23

2 Material & Finish

- N** Electroless nickel (aluminum)
48 hr. dynamic salt spray rating
- W** Olive drab cadmium (aluminum)
500 hr. dynamic salt spray rating
- B** Anodized, non-conductive (aluminum)
125 hr. dynamic salt spray rating
- S** Passivated (stainless steel)
1,000 hr. dynamic salt spray rating

For complete material and finish options, see p. T-10.

3 Shell Size & Insert Arrangement

See Insert Arrangement Selection table, p. T-14

4 Contact Style

Standard Crimp Contacts

- P** Pin
- S** Socket
- A** Pin insert, supplied without contacts
- B** Socket insert, supplied without contacts

5 Shell Key Positions or Insert Rotations

Shell Key Positions (rotation of master keyway)

N (normal) 6, 7, 8, 9 or Y

Insert Rotations*

N (normal) 1, 2, 3, 4, 5

*Inactive for new designs. See Alternate Keying & Rotations on p. T-11.

6 Optional Backshell Kit (Omit for None)

Strain Relief Backshell (Self-Locking)

- B2** Straight, p. T-24
- B4** 90°, p. T-25

EMI/RFI Environmental Backshell

- R2 ()** Straight, p. T-35
- R3 ()** 45°, p. T-38
- R4 ()** 90°, p. T-40

Supply specific Dash No. on referenced datasheet page for appropriate connector shell size.

Shrink Boot & Boot Adapter

- K2** Straight boot, p. T-44, & adapter, p. T-46
- K4** 90° boot, p. T-45, & adapter, p. T-46

K2 supplied with recommended boot in 100 material, p. T-44.
K4 supplied with recommended boot in 100 material, p. T-45.

Shrink Boot, EMI/RFI Banding Boot Adapter, & Band

- D2** Straight adapter, p. T-47, w/ boot & band
- D4** 90° adapter, p. T-47, w/ boot & band

Supplied with recommended straight boot in 100 material, p. T-44, and TB250 band, p. T-57.

7 Optional Accessory Kit (Omit for None)

01 For Plugs:

Protective cover, p. T-48, p. T-49

02 For Receptacles:

Protective cover, p. T-48, p. T-49 +
Mounting gasket, p. T-52

03 For Receptacles:

Protective cover, p. T-48, p. T-49 +
Mounting gasket, p. T-52 +
Mounting bracket, p. T-53
with (4x) sealing screws

Kits with EMI/RFI Backshells will be supplied with EVGS RFI shielding gaskets.

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How to Decipher your Military Standard Specification

Military specification numbers are formed just like Milnec part numbers. Each character or group of characters represents the different elements of the connector. However, military specifications must be crossed in order to build a compatible Milnec part number.

Below is an example specification for an M83723 connector that designates, 1) M83723 series, 2) wall mount receptacle with pin contacts, 3) electroless nickel finish, 4) 22-55 insert, and 5) normal rotation. By understanding your specification you can easily build a compatible Milnec connector. ■

M83723 /72 R 22-55 N

1 2 3 4 5

1 Military Specification

Designator
M83723 MIL-DTL-83723 Series III Connectors

2 Connector Shell Style

Bayonet Style

- /71 Wall mount receptacle with socket contacts
- /72 Wall mount receptacle with pin contacts
- /73 Jam nut receptacle with socket contacts
- /74 Jam nut receptacle with pin contacts
- /75 Plug with socket contacts
- /76 Plug with pin contacts
- /77 Plug with RFI grounding, socket contacts
- /78 Plug with RFI grounding, pin contacts

Threaded Style

- /82 Wall mount receptacle with socket contacts
- /83 Wall mount receptacle with pin contacts
- /84 Jam nut receptacle with socket contacts
- /85 Jam nut receptacle with pin contacts
- /86 Plug with socket contacts
- /87 Plug with pin contacts
- /91 Plug with RFI grounding, socket contacts
- /92 Plug with RFI grounding, pin contacts
- /95 Plug (self-locking), socket contacts
- /96 Plug (self-locking), pin contacts

3 Material & Finish

- R** Electroless nickel (aluminum)
48 hr. dynamic salt spray rating
- W** Olive drab cadmium (aluminum)
500 hr. dynamic salt spray rating
- A** Anodized, non-conductive (aluminum)
125 hr. dynamic salt spray rating
- G** Passivated (stainless steel)
1,000 hr. dynamic salt spray rating

4 Shell Size & Insert Arrangement

See Insert Arrangement Selection table, p. T-14

5 Shell Key Positions & Insert Rotations

Shell Key Positions (rotation of master keyway)

N (normal) 6, 7, 8, 9 or Y

Insert Rotations*

N (normal) 1, 2, 3, 4, 5

*Inactive for new designs. See Alternate Keying & Rotations on p. T-11.

Examples of Mil-Specs to Milnec Equivalents

The chart to the right shows some examples of crossing a military specification to a Milnec part number. Any military specification can be crossed by simply referencing the number from the various callouts above to provide the Milnec equivalent part number builder on p. T-12. If you have questions please call us, our technical support staff is happy help.

Military Specification	Milnec Part Number
M83723/76W1006N	EVB6W10-06PN
M83723/72R14047	EVB0N14-04P7
M83723/73G2016N	EVB7S20-16SN
M83723/86W2219Y	EVT6W22-19SY
M83723/83R1212N	EVT0N12-12PN

Insert Arrangements

EV Series • MIL-DTL-83723 Series III Type Connectors

Selecting Your Insert Arrangement

Below is a chart that represents every available shell and insert arrangement within the series. To choose the proper insert arrangement, you must first distinguish your application requirements for contact size and amount.

Each insert arrangement has a unique number to identify its size and contact arrangement. The first number is the shell size. The second number is the contact arrangement. It does not, however, always equal the total number of contacts. ■

Insert Arrangement Selection

Insert Arrangement	Total Contacts	Contact Size			Service Rating
		#20	#16	#12	
08-03	3	3			I
08-98	3	3			I
10-02	2	2			I
10-05	5	5			I
10-06	6	6			I
10-20	2		2		I
12-03	3		3		I
12-12	12	12			I
14-04	4			4	I
14-07	7		7		I
14-12	12	9	3		I
14-15	15	15			I
16-10	10		10		I
16-24	24	24			I
18-08	8			8	I
18-14	14		14		I
18-31	31	31			I
20-16	16		16		I
20-25	25	19		6	I
20-28	28	24		4	I
20-39	39	37	2		I
20-41	41	41			I
22-12	12			12	I
22-19	19		19		I
22-32	32	26		6	I
22-55	55	55			I
24-43	43	23	20		I
24-57	57	55		2	I
24-61	61	61			I

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Insert Arrangement Drawings

EV Series • MIL-DTL-83723 Series III Type Connectors

Arrangement
Service Rating
Number of Contacts



8-03

|

3 x #20



8-98

|

3 x #20



10-02

|

2 x #20



10-05

|

5 x #20



10-06

|

6 x #20



10-20

|

2 x #16



12-03

|

3 x #16

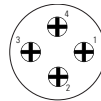
Arrangement
Service Rating
Number of Contacts



12-12

|

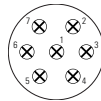
12 x #20



14-04

|

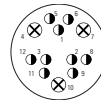
4 x #12



14-07

|

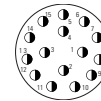
7 x #16



14-12

|

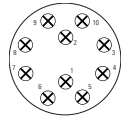
9 x #20
3 x #16



14-15

|

15 x #20

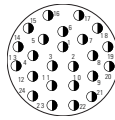


16-10

|

10 x #16

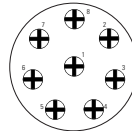
Arrangement
Service Rating
Number of Contacts



16-24

|

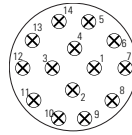
24 x #20



18-08

|

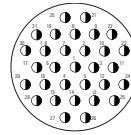
8 x #12



18-14

|

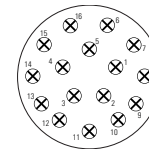
14 x #16



18-31

|

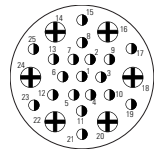
31 x #20



20-16

|

16 x #16

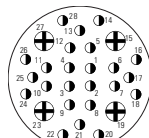


20-25

|

19 x #20
6 x #12

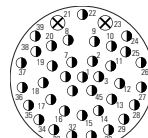
Arrangement
Service Rating
Number of Contacts



20-28

|

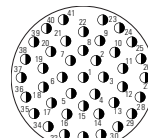
24 x #20
4 x #12



20-39

|

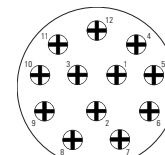
37 x #20
2 x #16



20-41

|

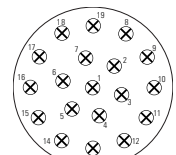
41 x #20



22-12

|

12 x #12

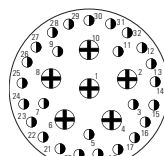


22-19

|

19 x #16

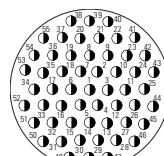
Arrangement
Service Rating
Number of Contacts



22-32

|

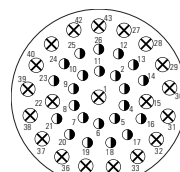
26 x #20
6 x #12



22-55

|

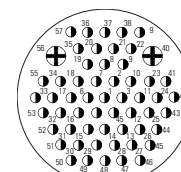
55 x #20



24-43

|

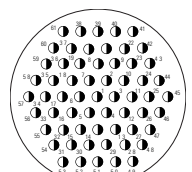
23 x #20
20 x #16



24-57

|

55 x #20
2 x #12



24-61

|

61 x #20

Contact Legend #12 ⊕ #16 ⊗ #20 ○
Rev. 2314

Plug (Bayonet)

EV Series • MIL-DTL-83723 Series III Type Connectors



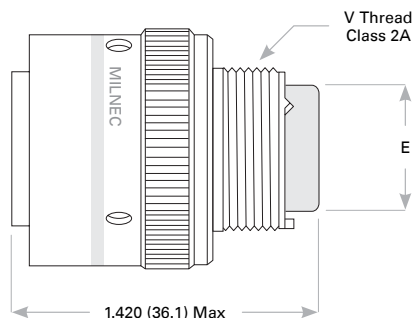
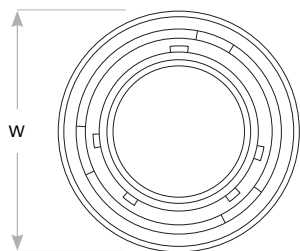
EVB6 Cross Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/75, M83723/76, M83723/77, M83723/78	M83723/71, M83723/72, M83723/73, M83723/74
Aero / Conesys	AE83375, AE83376, AE83377, AE83378	AE83371, AE83372, AE83373, AE83374
Amphenol / Matrix	MB36, MB38	MB30, MB34
Deutsch / TE	DL66	DL60, DL64

Plug Dimensions

Shell Size	W	E	V Thread Class 2A
8	.776 (19.7)	.305 (7.7)	.5000-20 UNF
10	.906 (23.0)	.405 (10.3)	.6250-24 UNEF
12	1.078 (27.4)	.531 (13.5)	.7500-20 UNEF
14	1.141 (29.0)	.665 (16.9)	.8750-20 UNEF
16	1.266 (32.2)	.790 (20.1)	1.0000-20 UNEF
18	1.375 (34.9)	.869 (22.1)	1.0625-18 UNEF
20	1.510 (38.4)	.994 (25.2)	1.1875-18 UNEF
22	1.625 (41.3)	1.119 (28.4)	1.3125-18 UNEF
24	1.760 (44.7)	1.244 (31.6)	1.4375-18 UNEF

Dimensions are in inches (mm).



EVB6 N 12-12 P N - R2(015) - 01

- BASIC PART NUMBER**
EVB6 Plug (bayonet)
EVB5 Plug with RFI grounding fingers (bayonet)
- MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- SHELL SIZE & INSERT ARRANGEMENT**
 See Insert Arrangement Selection table, p. T-14
- CONTACT STYLE**
P Pin
S Socket
- KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
 (Add dash number for appropriate shell size, see p. T-35)
- OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
01 Protective Cover

Note: See part builder (p. T-12) for additional kit options.

M83723/71 & M83723/72 Datasheet

EV Series • MIL-DTL-83723 Series III Type Connectors

EVBO N 12-12 S N - R2(015) - 03

- 1 **BASIC PART NUMBER**
EVBO Wall mount receptacle (bayonet)
- 2 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- 3 **SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See part builder (p. T-12) for additional kit options.



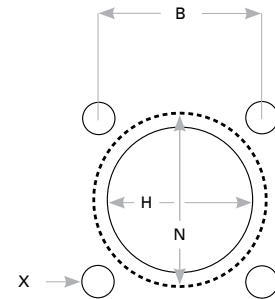
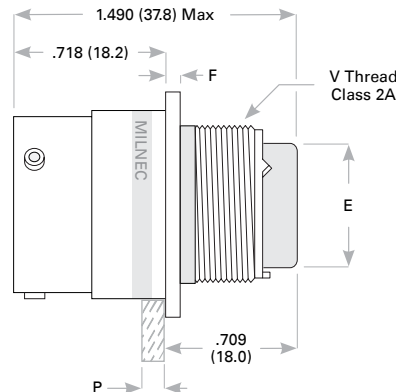
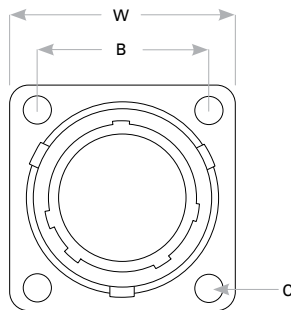
EVBO Cross Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/71, M83723/72	M83723/75, M83723/76, M83723/77, M83723/78
Aero / Conesys	AE83371, AE83372	AE83375, AE83376, AE83377, AE83378
Amphenol / Matrix	MB30	MB36, MB38
Deutsch / TE	DL60	DL66

Receptacle Dimensions

Shell Size	W	C	D	E	F	V Thread Class 2A	P Max Rear Panel†	B	X	H Front Mount	N Rear Mount
8	.812 (20.6)	.120 (3.0)	.536 (13.6)	.305 (7.7)	.097 (2.5)	.5000-20 UNF	.234 (5.9)	.594 (15.1)	.125 (3.2)	.510 (13.0)	.620 (15.7)
10	.937 (23.8)	.120 (3.0)	.659 (16.7)	.405 (10.3)	.097 (2.5)	.6250-24 UNEF	.234 (5.9)	.719 (18.3)	.125 (3.2)	.635 (16.1)	.748 (19.0)
12	1.031 (26.2)	.120 (3.0)	.829 (21.1)	.531 (13.5)	.097 (2.5)	.7500-20 UNEF	.234 (5.9)	.812 (20.6)	.125 (3.2)	.760 (19.3)	.913 (23.2)
14	1.125 (28.6)	.120 (3.0)	.898 (22.8)	.665 (16.9)	.097 (2.5)	.8750-20 UNEF	.234 (5.9)	.906 (23.0)	.125 (3.2)	.885 (22.5)	.980 (24.9)
16	1.250 (31.8)	.120 (3.0)	1.025 (26.0)	.790 (20.1)	.097 (2.5)	1.0000-20 UNEF	.234 (5.9)	.969 (24.6)	.125 (3.2)	1.010 (25.7)	1.107 (28.1)
18	1.343 (34.1)	.120 (3.0)	1.131 (28.7)	.869 (22.1)	.097 (2.5)	1.0625-18 UNEF	.234 (5.9)	1.062 (27.0)	.125 (3.2)	1.072 (27.2)	1.209 (30.7)
20	1.437 (36.5)	.120 (3.0)	1.256 (31.9)	.994 (25.2)	.097 (2.5)	1.1875-18 UNEF	.234 (5.9)	1.156 (29.4)	.125 (3.2)	1.197 (30.4)	1.337 (34.0)
22	1.562 (39.7)	.120 (3.0)	1.381 (35.1)	1.119 (28.4)	.128 (3.3)	1.3125-18 UNEF	.234 (5.9)	1.250 (31.8)	.125 (3.2)	1.322 (33.6)	1.452 (36.9)
24	1.703 (43.3)	.149 (3.8)	1.506 (38.3)	1.244 (31.6)	.128 (3.3)	1.4375-18 UNEF	.234 (5.9)	1.375 (34.9)	.154 (3.9)	1.442 (36.6)	1.577 (40.1)

Dimensions are in inches (mm). † Max panel thickness applies only to rear mount applications to ensure proper coupling clearance.



Panel Cutout

M83723/73 & M83723/74 Connector Type Datasheet

EV Series • MIL-DTL-83723 Series III Type Connectors



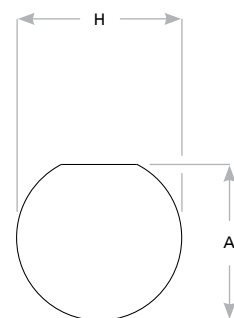
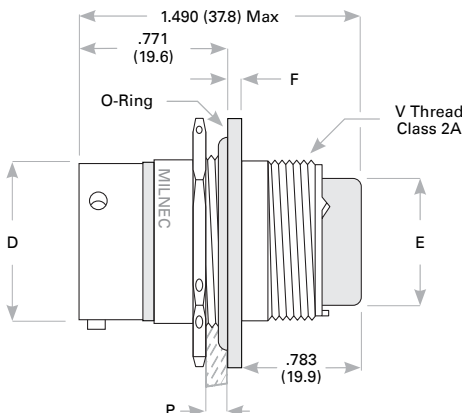
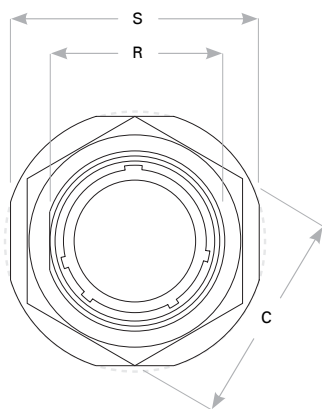
EVB7 Cross Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/73, M83723/74	M83723/75, M83723/76, M83723/77, M83723/78
Aero / Conesys	AE83373, AE83374	AE83375, AE83376, AE83377, AE83378
Amphenol / Matrix	MB34	MB36, MB38
Deutsch TE	DL64	DL66

Receptacle Dimensions

Shell Size	R	S	C	D	E	F	V Thread Class 2A	P Max Rear Panel†	H	A
8	.593 (15.1)	.979 (24.9)	.829 (21.1)	.536 (13.6)	.305 (7.7)	.097 (2.5)	.5000-20 UNF	.125 (3.2)	.635 (16.1)	.605 (15.4)
10	.718 (18.2)	1.104 (28.0)	.954 (24.2)	.659 (16.7)	.405 (10.3)	.097 (2.5)	.6250-24 UNEF	.125 (3.2)	.760 (19.3)	.730 (18.5)
12	.905 (23.0)	1.291 (32.8)	1.142 (29.0)	.829 (21.1)	.531 (13.5)	.097 (2.5)	.7500-20 UNEF	.125 (3.2)	.947 (24.1)	.917 (23.3)
14	.968 (24.6)	1.391 (35.3)	1.205 (30.6)	.898 (22.8)	.665 (16.9)	.097 (2.5)	.8750-20 UNEF	.125 (3.2)	1.010 (25.7)	.980 (24.9)
16	1.093 (27.8)	1.516 (38.5)	1.329 (33.8)	1.025 (26.0)	.790 (20.1)	.097 (2.5)	1.0000-20 UNEF	.125 (3.2)	1.135 (28.8)	1.105 (28.1)
18	1.217 (30.9)	1.641 (41.7)	1.455 (37.0)	1.131 (28.7)	.869 (22.1)	.097 (2.5)	1.0625-18 UNEF	.125 (3.2)	1.260 (32.0)	1.229 (31.2)
20	1.342 (34.1)	1.766 (44.9)	1.579 (40.1)	1.256 (31.9)	.994 (25.2)	.097 (2.5)	1.1875-18 UNEF	.125 (3.2)	1.385 (35.2)	1.354 (34.4)
22	1.467 (37.3)	1.954 (49.6)	1.705 (43.3)	1.381 (35.1)	1.119 (28.4)	.128 (3.3)	1.3125-18 UNEF	.125 (3.2)	1.510 (38.4)	1.479 (37.6)
24	1.592 (40.4)	2.079 (52.8)	1.829 (46.5)	1.506 (38.3)	1.244 (31.6)	.128 (3.3)	1.4375-18 UNEF	.125 (3.2)	1.635 (41.5)	1.604 (40.7)

Dimensions are in inches (mm). † Max panel thickness will ensure proper coupling clearance.



Panel Cutout

EVB7 N 12-12 S N - R2(015) - 02

- BASIC PART NUMBER**
EVB7 Jam nut receptacle (bayonet)
- MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- CONTACT STYLE**
P Pin
S Socket
- KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover

Note: See part builder (p. T-12) for additional kit options.

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Plug (Threaded)

EV Series • MIL-DTL-83723 Series III Type Connectors



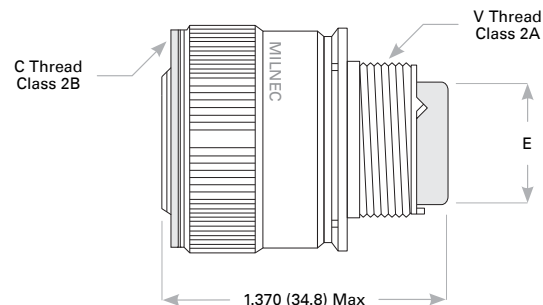
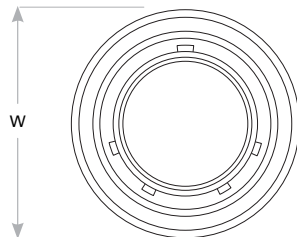
EVT6 Cross-Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/86, M83723/87, M83723/91, M83723/92	M83723/82, M83723/83, M83723/84, M83723/85
Aero / Conesys	AE83386, AE83387, AE83391, AE83392	AE83382, AE83383, AE83384, AE83385
Amphenol / Matrix	MT36, MT38	MT30, MT34
Deutsch / TE	DBA36	DBA30, DBA34

Plug Dimensions

Shell Size	W	E	V Thread Class 2A	C Thread Class 2B
8	.756 (19.2)	.305 (7.7)	.5000-20 UNF	.5625-24 UNEF
10	.906 (23.0)	.405 (10.3)	.6250-24 UNEF	.6875-24 UNEF
12	1.078 (27.4)	.531 (13.5)	.7500-20 UNEF	.8750-20 UNEF
14	1.141 (29.0)	.665 (16.9)	.8750-20 UNEF	.9375-20 UNEF
16	1.266 (32.2)	.790 (20.1)	1.0000-20 UNEF	1.0625-18 UNEF
18	1.375 (34.9)	.869 (22.1)	1.0625-18 UNEF	1.1875-18 UNEF
20	1.510 (38.4)	.994 (25.2)	1.1875-18 UNEF	1.3125-18 UNEF
22	1.625 (41.3)	1.119 (28.4)	1.3125-18 UNEF	1.4375-18 UNEF
24	1.760 (44.7)	1.244 (31.6)	1.4375-18 UNEF	1.5625-18 UNEF

Dimensions are in inches (mm).



EVT6 N 12-12 P N - R2(015) - 01

- BASIC PART NUMBER**
EVT6 Plug (threaded)
EVT5 Plug with RFI grounding fingers (threaded)
- MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- CONTACT STYLE**
P Pin
S Socket
- KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
01 Protective Cover

Note: See part builder (p. T-12) for additional kit options.

M83723/95 & M83723/96 Connector Type Datasheet

EV Series • MIL-DTL-83723 Series III Type Connectors

EVT9 N 12-12 P N - R2(015) - 03

- 1 **BASIC PART NUMBER**
EVT9 Self-locking plug (threaded)
- 2 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- 3 **SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See part builder (p. T-12) for additional kit options.



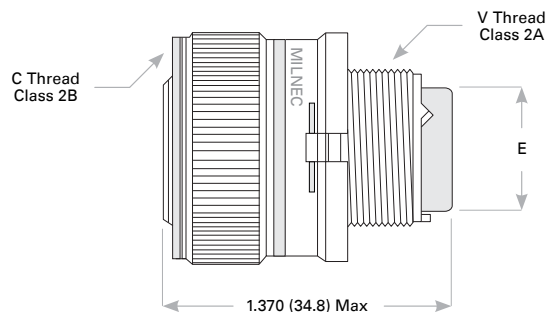
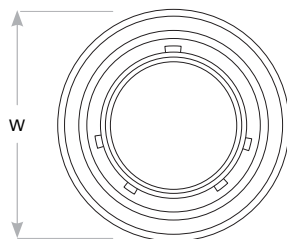
EVT9 Cross-Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/95, M83723/96	M83723/82, M83723/83 M83723/84, M83723/85
Aero / Conesys	AE83395, AE83396, AE83397, AE83398	AE83382, AE83383, AE83384, AE83385
Amphenol / Matrix	MT37	MT30, MT34
Deutsch / TE	NA	DBA30, DBA34

Plug Dimensions

Shell Size	W	E	V Thread Class 2A	C Thread Class 2B
8	.832 (21.1)	.305 (7.7)	.5000-20 UNF	.5625-24 UNEF
10	.959 (24.4)	.405 (10.3)	.6250-24 UNEF	.6875-24 UNEF
12	1.097 (27.9)	.531 (13.5)	.7500-20 UNEF	.8750-20 UNEF
14	1.236 (31.4)	.665 (16.9)	.8750-20 UNEF	.9375-20 UNEF
16	1.360 (34.5)	.790 (20.1)	1.0000-20 UNEF	1.0625-18 UNEF
18	1.428 (36.3)	.869 (22.1)	1.0625-18 UNEF	1.1875-18 UNEF
20	1.586 (40.3)	.994 (25.2)	1.1875-18 UNEF	1.3125-18 UNEF
22	1.703 (43.3)	1.119 (28.4)	1.3125-18 UNEF	1.4375-18 UNEF
24	1.846 (46.9)	1.244 (31.6)	1.4375-18 UNEF	1.5625-18 UNEF

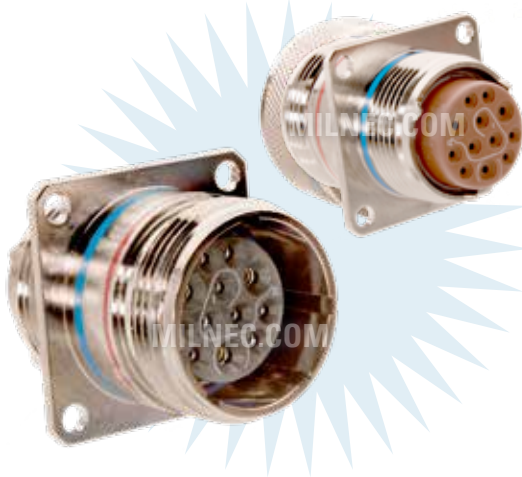
Dimensions are in inches (mm).



Rev. 2314

M83723/82 & M83723/83 Connector Type Datasheet

EV Series • MIL-DTL-83723 Series III Type Connectors



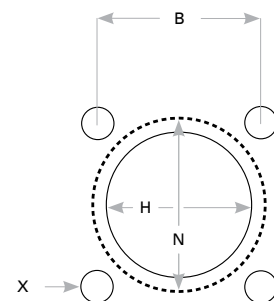
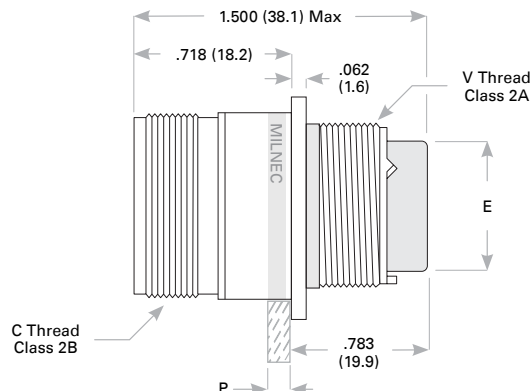
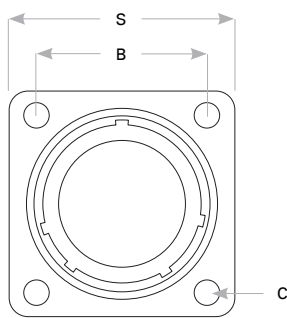
EVT0 Cross-Reference & Compatibility

Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/82, M83723/83	M83723/86, M83723/87, M83723/91, M83723/92, M83723/95, M83723/96
Aero / Conesys	AE83382, 83	AE83386, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MT30	MT36, MT37, MT38
Deutsch / TE	DBA30	DBA36

Receptacle Dimensions

Shell Size	S	C	E	F	V Thread Class 2A	C Thread Class 2A	P Max Rear Panel†	X	B	H Front Mount	N Rear Mount
8	.812 (20.6)	.120 (3.1)	.305 (7.7)	.097 (2.5)	.5000-20 UNF	.5625-24 UNF	.234 (5.9)	.125 (3.2)	.594 (15.1)	.510 (13.0)	.620 (15.7)
10	.937 (23.8)	.120 (3.1)	.405 (10.3)	.097 (2.5)	.6250-24 UNEF	.6875-24 UNEF	.234 (5.9)	.125 (3.2)	.719 (18.3)	.635 (16.1)	.748 (19.0)
12	1.031 (26.2)	.120 (3.1)	.531 (13.5)	.097 (2.5)	.7500-20 UNEF	.8750-20 UNEF	.234 (5.9)	.125 (3.2)	.812 (20.6)	.760 (19.3)	.913 (23.2)
14	1.125 (28.6)	.120 (3.1)	.665 (16.9)	.097 (2.5)	.8750-20 UNEF	.9375-20 UNEF	.234 (5.9)	.125 (3.2)	.906 (23.0)	.885 (22.5)	.980 (24.9)
16	1.250 (31.8)	.120 (3.1)	.790 (20.1)	.097 (2.5)	1.0000-20 UNEF	1.0625-18 UNEF	.234 (5.9)	.125 (3.2)	.969 (24.6)	1.010 (25.7)	1.107 (28.1)
18	1.343 (34.1)	.120 (3.1)	.869 (22.1)	.097 (2.5)	1.0625-18 UNEF	1.1875-18 UNEF	.234 (5.9)	.125 (3.2)	1.062 (27.0)	1.072 (27.2)	1.209 (30.7)
20	1.437 (36.5)	.120 (3.1)	.994 (25.2)	.097 (2.5)	1.1875-18 UNEF	1.3125-18 UNEF	.234 (5.9)	.125 (3.2)	1.156 (29.4)	1.197 (30.4)	1.337 (34.0)
22	1.562 (39.7)	.120 (3.1)	1.119 (28.4)	.128 (3.3)	1.3125-18 UNEF	1.4375-18 UNEF	.234 (5.9)	.125 (3.2)	1.250 (31.8)	1.322 (33.6)	1.452 (36.9)
24	1.703 (43.3)	.149 (3.8)	1.244 (31.6)	.128 (3.3)	1.4375-18 UNEF	1.5625-18 UNEF	.234 (5.9)	.154 (3.9)	1.375 (34.9)	1.442 (36.6)	1.577 (40.1)

Dimensions are in inches (mm). † Max panel thickness applies only to rear mount applications to ensure proper coupling clearance.



Panel Cutout

EVT0 N 12-12 S N - R2(015) - 02

- BASIC PART NUMBER**
EVT0 Wall mount receptacle (threaded)
- MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- CONTACT STYLE**
P Pin
S Socket
- KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See part builder (p. T-12) for additional kit options.

M83723/84 & M83723/85 Connector Type Datasheet

EV Series • MIL-DTL-83723 Series III Type Connectors

EVT7 N 12-12 S N - R2(015) - 03



- 1 **BASIC PART NUMBER**
EVT7 Jam nut receptacle (threaded)
- 2 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- 3 **SHELL SIZE & INSERT ARRANGEMENT**
See Insert Arrangement Selection table, p. T-14
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **KEYING POSITION OR INSERT ROTATION**
N Normal keying or 6, 7, 8, 9, Y
N Normal rotation or 1, 2, 3, 4, 5
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Straight strain relief (self-locking), p. T-24
R2() Straight EMI/RFI environmental, p. T-35
(Add dash number for appropriate shell size, see p. T-35)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover

EVT7 Cross-Reference & Compatibility

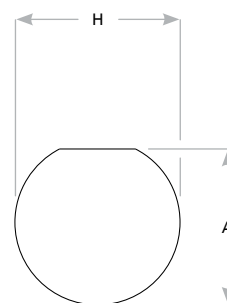
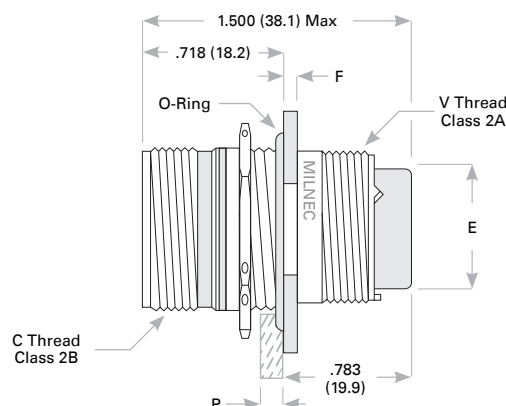
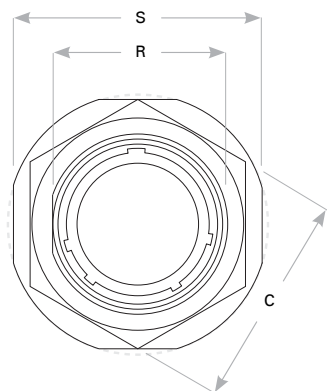
Compatible Brands	Equivalent	Mates
MIL-DTL-83723 Series III	M83723/84, M83723/85	M83723/86, M83723/87, M83723/91, M83723/92, M83723/95, M83723/96
Aero / Conesys	AE83384, 85	AE83386, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MT34	MT36, MT37, MT38
Deutsch / TE	DBA34	DBA36

Note: See part builder (p. T-12) for additional kit options.

Receptacle Dimensions

Shell Size	R	S	C	E	F	V Thread Class 2A	C Thread Class 2A	P Max Rear Panel†	H	A
8	.593 (15.1)	.980 (24.9)	.828 (21.0)	.305 (7.7)	.097 (2.5)	.5000-20 UNF	.5625-24 UNEF	.125 (3.2)	.635 (16.1)	.605 (15.4)
10	.718 (18.2)	1.104 (28.0)	.953 (24.2)	.405 (10.3)	.097 (2.5)	.6250-24 UNEF	.6875-24 UNEF	.125 (3.2)	.760 (19.3)	.730 (18.5)
12	.905 (23.0)	1.291 (32.8)	1.140 (29.0)	.531 (13.5)	.097 (2.5)	.7500-20 UNEF	.8750-20 UNEF	.125 (3.2)	.947 (24.1)	.917 (23.3)
14	.968 (24.6)	1.391 (35.3)	1.250 (31.8)	.665 (16.9)	.097 (2.5)	.8750-20 UNEF	.9375-20 UNEF	.125 (3.2)	1.010 (25.7)	.980 (24.9)
16	1.093 (27.8)	1.516 (38.5)	1.329 (33.8)	.790 (20.1)	.097 (2.5)	1.0000-20 UNEF	1.0625-18 UNEF	.125 (3.2)	1.135 (28.8)	1.105 (28.1)
18	1.217 (30.9)	1.641 (41.7)	1.455 (37.0)	.869 (22.1)	.097 (2.5)	1.0625-18 UNEF	1.1875-18 UNEF	.125 (3.2)	1.260 (32.0)	1.229 (31.2)
20	1.342 (34.1)	1.766 (44.9)	1.642 (41.7)	.994 (25.2)	.097 (2.5)	1.1875-18 UNEF	1.3125-18 UNEF	.125 (3.2)	1.385 (35.2)	1.354 (34.4)
22	1.467 (37.3)	1.954 (49.6)	1.705 (43.3)	1.119 (28.4)	.128 (3.3)	1.3125-18 UNEF	1.4375-18 UNEF	.125 (3.2)	1.510 (38.4)	1.479 (37.6)
24	1.592 (40.4)	2.079 (52.8)	1.892 (48.1)	1.244 (31.6)	.128 (3.3)	1.4375-18 UNEF	1.5625-18 UNEF	.125 (3.2)	1.635 (41.5)	1.604 (40.7)

Dimensions are in inches (mm). † Max panel thickness will ensure proper coupling clearance.



Panel Cutout

Rev. 2314

Straight Strain Relief Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



EVB2 - S - 16 N

- 1 **BASIC PART NUMBER**
EVB2 Straight strain relief backshell
- 2 **COUPLING STYLE**
N Non-self-locking coupling
S Self-locking coupling
- 3 **SHELL SIZE**
See Strain Relief Dimensions table below
- 4 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
B Aluminum, hardcoat anodize

EVB2 Compatibility

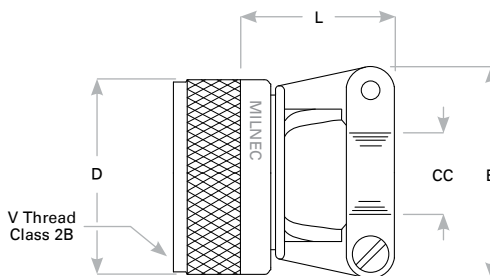
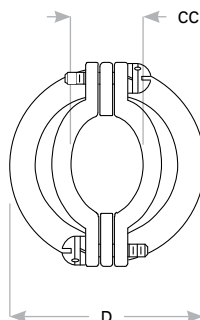
Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

Strain Relief Dimensions

Shell Size	D	V Thread Class 2B	L	B	CC Cable Clearance	
					Min	Max
8	.885 (22.5)	.5000-20 UNF	.730 (18.5)	.732 (18.6)	.125 (3.2)	.204 (5.2)
10	1.010 (25.7)	.6250-24 UNEF	.850 (21.6)	.812 (20.6)	.187 (4.7)	.286 (7.3)
12	1.135 (28.8)	.7500-20 UNEF	.980 (24.9)	.968 (24.6)	.291 (7.4)	.416 (10.6)
14	1.260 (32.0)	.8750-20 UNEF	.980 (24.9)	1.026 (26.1)	.351 (8.9)	.476 (12.1)
16	1.385 (35.2)	1.0000-20 UNEF	1.100 (27.9)	1.299 (33.0)	.501 (12.7)	.626 (15.9)
18	1.510 (38.4)	1.0625-18 UNEF	1.350 (34.3)	1.431 (36.3)	.518 (13.2)	.706 (17.9)
20	1.635 (41.5)	1.1875-18 UNEF	1.480 (37.6)	1.537 (39.0)	.581 (14.8)	.831 (21.1)
22	1.760 (44.7)	1.3125-18 UNEF	1.600 (40.6)	1.633 (41.5)	.644 (16.4)	.956 (24.3)
24	1.885 (47.9)	1.4375-18 UNEF	1.730 (43.9)	1.755 (44.6)	.706 (17.9)	1.081 (27.5)

Dimensions are in inches (mm).



Rev. 2314

90° Strain Relief Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors

EV B4 - S - 16 N

- 1 **BASIC PART NUMBER**
EV B4 90° strain relief backshell
- 2 **COUPLING STYLE**
N Non-self-locking coupling
S Self-locking coupling
- 3 **SHELL SIZE**
See Strain Relief Dimensions table below
- 4 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
B Aluminum, hardcoat anodize



Note: See overview (pp.T-4-T-5) for all connector and accessory options.

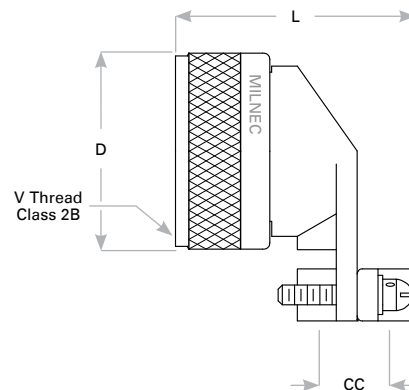
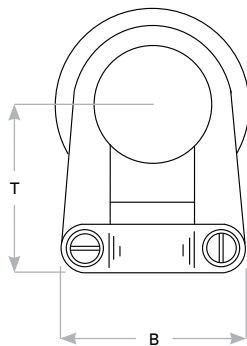
EV B4 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36

Strain Relief Dimensions

Shell Size	T	B	V Thread Class 2B	L	D	CC Cable Clearance	
						Min	Max
8	.746 (18.9)	.732 (18.6)	.5000-20 UNF	1.257 (31.9)	.885 (22.5)	.125 (3.2)	.204 (5.2)
10	.805 (20.4)	.812 (20.6)	.6250-24 UNEF	1.339 (34.0)	1.010 (25.7)	.187 (4.7)	.286 (7.3)
12	.867 (22.0)	.968 (24.6)	.7500-20 UNEF	1.532 (38.9)	1.135 (28.8)	.291 (7.4)	.416 (10.6)
14	.930 (23.6)	1.026 (26.1)	.8750-20 UNEF	1.592 (40.4)	1.260 (32.0)	.351 (8.9)	.476 (12.1)
16	.994 (25.2)	1.299 (33.0)	1.0000-20 UNEF	1.741 (44.2)	1.385 (35.2)	.501 (12.7)	.626 (15.9)
18	1.171 (29.7)	1.431 (36.3)	1.0625-18 UNEF	1.853 (47.1)	1.510 (38.4)	.518 (13.2)	.706 (17.9)
20	1.234 (31.2)	1.537 (39.0)	1.1875-18 UNEF	1.978 (50.2)	1.635 (41.5)	.581 (14.8)	.831 (21.1)
22	1.296 (32.9)	1.633 (41.5)	1.3125-18 UNEF	2.108 (53.5)	1.760 (44.7)	.644 (16.4)	.956 (24.3)
24	1.358 (34.5)	1.755 (44.6)	1.4375-18 UNEF	2.228 (56.6)	1.885 (47.9)	.706 (17.9)	1.081 (27.5)

Dimensions are in inches (mm).



Rev. 2314

Straight Environmental Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



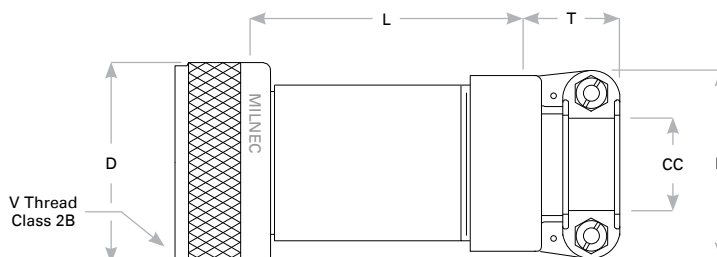
EVE2 - 009 N

- 1 **BASIC PART NUMBER**
EVE2 Straight environmental backshell
- 2 **DASH NO.**
See Backshell Dimensions table below
- 3 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVE2 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
005	8	.5000-20 UNF	1.027 (26.1)	.617 (15.7)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.250 (6.4)
006	8	.5000-20 UNF	1.027 (26.1)	.617 (15.7)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.250 (6.4)
007	8	.5000-20 UNF	1.027 (26.1)	.617 (15.7)	1.145 (29.1)	2.875 (73.0)	.250 (6.4)	.437 (11.1)
008	8	.5000-20 UNF	1.027 (26.1)	.617 (15.7)	1.145 (29.1)	3.875 (98.4)	.250 (6.4)	.437 (11.1)
009	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
010	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
136	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.375 (9.5)
137	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.375 (9.5)
011	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	2.875 (73.0)	.250 (6.4)	.437 (11.1)
012	10	.6250-24 UNEF	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	3.875 (98.4)	.250 (6.4)	.437 (11.1)
114	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
115	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
013	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
014	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
111	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.500 (12.7)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Straight Environmental Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
139	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.500 (12.7)
015	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	2.875 (73.0)	.350 (8.9)	.625 (15.9)
016	12	.7500-20 UNEF	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	3.875 (98.4)	.350 (8.9)	.625 (15.9)
150	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
151	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
116	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
117	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
017	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.575 (14.6)
018	14	.8750-20 UNEF	1.027 (26.1)	.984 (25.0)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.575 (14.6)
019	14	.8750-20 UNEF	1.059 (26.9)	.984 (25.0)	1.551 (39.4)	2.875 (73.0)	.500 (12.7)	.750 (19.1)
020	14	.8750-20 UNEF	1.059 (26.9)	.984 (25.0)	1.551 (39.4)	3.875 (98.4)	.500 (12.7)	.750 (19.1)
152	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
153	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
112	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
113	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
118	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.625 (15.9)
119	16	1.0000-20 UNEF	1.027 (26.1)	1.112 (28.2)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
021	16	1.0000-20 UNEF	1.059 (26.9)	1.112 (28.2)	1.551 (39.4)	2.125 (54.0)	.500 (12.7)	.700 (17.8)
022	16	1.0000-20 UNEF	1.059 (26.9)	1.112 (28.2)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.700 (17.8)
023	16	1.0000-20 UNEF	1.156 (29.4)	1.112 (28.2)	1.770 (45.0)	2.875 (73.0)	.625 (15.9)	.937 (23.8)
024	16	1.0000-20 UNEF	1.156 (29.4)	1.112 (28.2)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
120	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
121	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
122	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
123	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
025	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.625 (15.9)
026	18	1.0625-18 UNEF	1.027 (26.1)	1.218 (30.9)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
027	18	1.0625-18 UNEF	1.059 (26.9)	1.218 (30.9)	1.551 (39.4)	2.125 (54.0)	.500 (12.7)	.750 (19.1)
028	18	1.0625-18 UNEF	1.059 (26.9)	1.218 (30.9)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
029	18	1.0625-18 UNEF	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	2.875 (73.0)	.625 (15.9)	.937 (23.8)
030	18	1.0625-18 UNEF	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
124	20	1.1875-18 UNEF	1.027 (26.1)	1.345 (34.2)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
125	20	1.1875-18 UNEF	1.027 (26.1)	1.345 (34.2)	1.145 (29.1)	4.125 (104.8)	.250 (6.4)	.437 (11.1)
031	20	1.1875-18 UNEF	1.027 (26.1)	1.345 (34.2)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
032	20	1.1875-18 UNEF	1.027 (26.1)	1.345 (34.2)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
033	20	1.1875-18 UNEF	1.059 (26.9)	1.345 (34.2)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
034	20	1.1875-18 UNEF	1.059 (26.9)	1.345 (34.2)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
140	20	1.1875-18 UNEF	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.904 (23.0)
141	20	1.1875-18 UNEF	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.904 (23.0)
035	20	1.1875-18 UNEF	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
036	20	1.1875-18 UNEF	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	4.875 (123.8)	.625 (15.9)	.937 (23.8)
037	20	1.1875-18 UNEF	1.375 (34.9)	1.345 (34.2)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
038	20	1.1875-18 UNEF	1.375 (34.9)	1.345 (34.2)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)
126	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
127	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	.957 (24.3)	4.125 (104.8)	.125 (3.2)	.312 (7.9)
128	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
129	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	1.145 (29.1)	4.125 (104.8)	.250 (6.4)	.437 (11.1)
039	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Straight Environmental Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
040	22	1.3125-18 UNEF	1.027 (26.1)	1.468 (37.3)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
041	22	1.3125-18 UNEF	1.059 (26.9)	1.468 (37.3)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
042	22	1.3125-18 UNEF	1.059 (26.9)	1.468 (37.3)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
043	22	1.3125-18 UNEF	1.156 (29.4)	1.468 (37.3)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.937 (23.8)
044	22	1.3125-18 UNEF	1.156 (29.4)	1.468 (37.3)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.937 (23.8)
142	22	1.3125-18 UNEF	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	3.125 (79.4)	.875 (22.2)	1.029 (26.1)
143	22	1.3125-18 UNEF	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	4.125 (104.8)	.875 (22.2)	1.029 (26.1)
045	22	1.3125-18 UNEF	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
046	22	1.3125-18 UNEF	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)
130	24	1.4375-18 UNEF	1.027 (26.1)	1.593 (40.5)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
131	24	1.4375-18 UNEF	1.027 (26.1)	1.593 (40.5)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
047	24	1.4375-18 UNEF	1.059 (26.9)	1.593 (40.5)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
048	24	1.4375-18 UNEF	1.059 (26.9)	1.593 (40.5)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
049	24	1.4375-18 UNEF	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.812 (20.6)
050	24	1.4375-18 UNEF	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.812 (20.6)
051	24	1.4375-18 UNEF	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.937 (23.8)
052	24	1.4375-18 UNEF	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.937 (23.8)
144	24	1.4375-18 UNEF	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	3.125 (79.4)	.875 (22.2)	1.144 (29.1)
145	24	1.4375-18 UNEF	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	4.125 (104.8)	.875 (22.2)	1.144 (29.1)
053	24	1.4375-18 UNEF	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
054	24	1.4375-18 UNEF	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).



Rev. 2314

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45° Environmental Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



EVE3 - 009 N

- 1

2

3
- 1

2

3
- BASIC PART NUMBER**
EVE3 45° environmental backshell

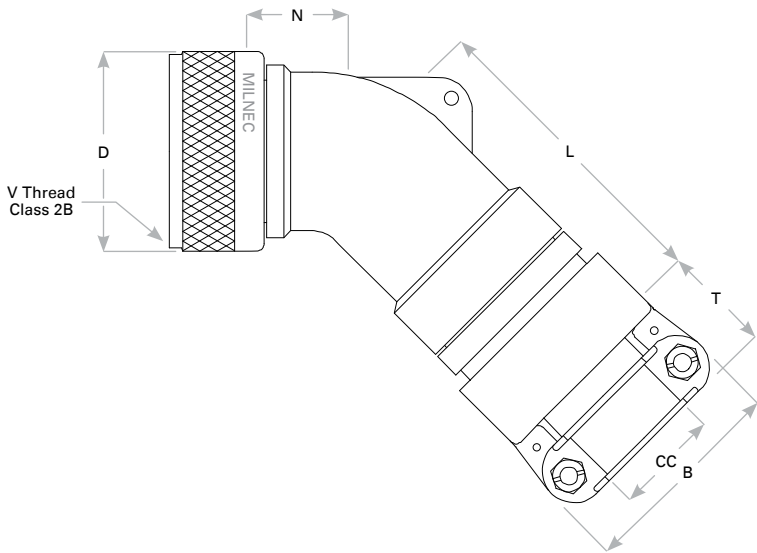
DASH NO.
See Backshell Dimensions table below

MATERIAL & FINISH
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVE3 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
003	8	.5000-20 UNF	.625 (15.9)	1.027 (26.1)	.617 (15.7)	.957 (24.3)	1.244 (31.6)	.125 (3.2)	.250 (6.4)
004	10	.6250-24 UNEF	.688 (17.5)	1.027 (26.1)	.734 (18.6)	.957 (24.3)	1.912 (48.6)	.125 (3.2)	.312 (7.9)
005	10	.6250-24 UNEF	.688 (17.5)	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	1.307 (33.2)	.250 (6.4)	.375 (9.5)
049	10	.6250-24 UNEF	1.500 (38.1)	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	1.972 (50.1)	.250 (6.4)	.437 (11.1)

Dimensions are in inches (mm). (Continued on next page) Rev. 2314

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
006	12	.7500-20 UNEF	.750 (19.1)	1.027 (26.1)	.858 (21.8)	.957 (24.3)	1.972 (50.1)	.125 (3.2)	.312 (7.9)
007	12	.7500-20 UNEF	.750 (19.1)	1.027 (26.1)	.858 (21.8)	1.145 (29.1)	1.972 (50.1)	.250 (6.4)	.437 (11.1)
008	12	.7500-20 UNEF	.750 (19.1)	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	1.972 (50.1)	.350 (8.9)	.500 (12.7)
071	12	.7500-20 UNEF	1.654 (42.0)	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	2.173 (55.2)	.350 (8.9)	.625 (15.9)
074	14	.8750-20 UNEF	.812 (20.6)	1.027 (26.1)	.984 (25.0)	.957 (24.3)	2.062 (52.4)	.125 (3.2)	.312 (7.9)
009	14	.8750-20 UNEF	.812 (20.6)	1.027 (26.1)	.984 (25.0)	1.145 (29.1)	2.062 (52.4)	.250 (6.4)	.437 (11.1)
010	14	.8750-20 UNEF	.812 (20.6)	1.027 (26.1)	.984 (25.0)	1.332 (33.8)	1.717 (43.6)	.350 (8.9)	.575 (14.6)
050	14	.8750-20 UNEF	1.842 (46.8)	1.059 (26.9)	.984 (25.0)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
075	16	1.0000-20 UNEF	.906 (23.0)	1.027 (26.1)	1.112 (28.2)	.957 (24.3)	2.172 (55.2)	.125 (3.2)	.312 (7.9)
011	16	1.0000-20 UNEF	.906 (23.0)	1.027 (26.1)	1.112 (28.2)	1.145 (29.1)	2.172 (55.2)	.250 (6.4)	.437 (11.1)
040	16	1.0000-20 UNEF	.906 (23.0)	1.027 (26.1)	1.112 (28.2)	1.332 (33.8)	2.172 (55.2)	.350 (8.9)	.625 (15.9)
012	16	1.0000-20 UNEF	.906 (23.0)	1.059 (26.9)	1.112 (28.2)	1.551 (39.4)	1.812 (46.0)	.500 (12.7)	.700 (17.8)
051	16	1.0000-20 UNEF	1.938 (49.2)	1.156 (29.4)	1.112 (28.2)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
041	18	1.0625-18 UNEF	1.093 (27.8)	1.027 (26.1)	1.218 (30.9)	.957 (24.3)	2.362 (60.0)	.125 (3.2)	.312 (7.9)
042	18	1.0625-18 UNEF	1.093 (27.8)	1.027 (26.1)	1.218 (30.9)	1.145 (29.1)	2.362 (60.0)	.250 (6.4)	.437 (11.1)
013	18	1.0625-18 UNEF	1.093 (27.8)	1.027 (26.1)	1.218 (30.9)	1.332 (33.8)	2.362 (60.0)	.350 (8.9)	.625 (15.9)
052	18	1.0625-18 UNEF	1.093 (27.8)	1.059 (26.9)	1.218 (30.9)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
014	18	1.0625-18 UNEF	1.093 (27.8)	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	2.000 (50.8)	.625 (15.9)	.779 (19.8)
072	18	1.0625-18 UNEF	1.938 (49.2)	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
043	20	1.1875-18 UNEF	1.093 (27.8)	1.027 (26.1)	1.345 (34.2)	1.145 (29.1)	2.362 (60.0)	.250 (6.4)	.437 (11.1)
015	20	1.1875-18 UNEF	1.093 (27.8)	1.027 (26.1)	1.345 (34.2)	1.332 (33.8)	2.362 (60.0)	.350 (8.9)	.625 (15.9)
054	20	1.1875-18 UNEF	1.093 (27.8)	1.059 (26.9)	1.345 (34.2)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
016	20	1.1875-18 UNEF	1.093 (27.8)	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	2.000 (50.8)	.625 (15.9)	.904 (23.0)
055	20	1.1875-18 UNEF	2.061 (52.3)	1.375 (34.9)	1.345 (34.2)	2.113 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)
044	22	1.3125-18 UNEF	1.188 (30.2)	1.027 (26.1)	1.468 (37.3)	.957 (24.3)	2.512 (63.8)	.125 (3.2)	.312 (7.9)
045	22	1.3125-18 UNEF	1.188 (30.2)	1.027 (26.1)	1.468 (37.3)	1.145 (29.1)	2.512 (63.8)	.250 (6.4)	.437 (11.1)
056	22	1.3125-18 UNEF	1.188 (30.2)	1.027 (26.1)	1.468 (37.3)	1.332 (33.8)	2.512 (63.8)	.350 (8.9)	.625 (15.9)
017	22	1.3125-18 UNEF	1.188 (30.2)	1.059 (26.9)	1.468 (37.3)	1.551 (39.4)	2.512 (63.8)	.500 (12.7)	.750 (19.1)
057	22	1.3125-18 UNEF	1.188 (30.2)	1.156 (29.4)	1.468 (37.3)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
018	22	1.3125-18 UNEF	1.188 (30.2)	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	2.155 (54.7)	.875 (22.2)	1.029 (26.1)
058	22	1.3125-18 UNEF	2.061 (52.3)	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)
046	24	1.4375-18 UNEF	1.188 (30.2)	1.027 (26.1)	1.593 (40.5)	1.332 (33.8)	2.512 (63.8)	.350 (8.9)	.625 (15.9)
019	24	1.4375-18 UNEF	1.188 (30.2)	1.059 (26.9)	1.593 (40.5)	1.551 (39.4)	2.512 (63.8)	.500 (12.7)	.750 (19.1)
059	24	1.4375-18 UNEF	1.188 (30.2)	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
020	24	1.4375-18 UNEF	1.188 (30.2)	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	2.155 (54.7)	.875 (22.2)	1.144 (29.1)
073	24	1.4375-18 UNEF	2.061 (52.3)	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).

90° Environmental Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



EVE4 - 009 N

- 1 **BASIC PART NUMBER**
- 2 **DASH NO.**
- 3 **MATERIAL & FINISH**

EVE4 90° environmental backshell

See Backshell Dimensions table below

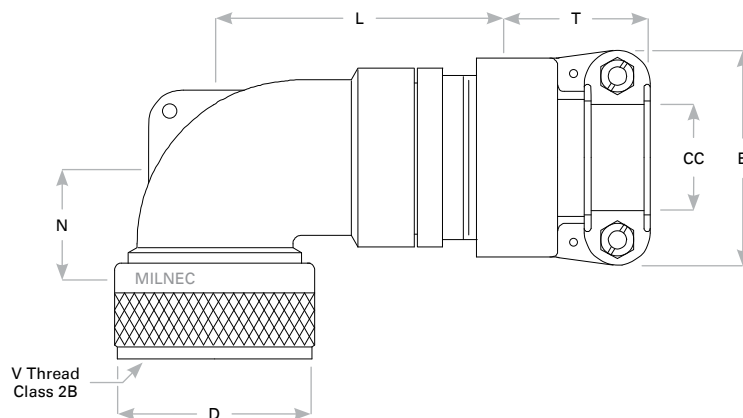
N Aluminum, electroless nickel

W Aluminum, olive drab cadmium

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVE4 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
003	8	.5000-20 UNF	.666 (16.9)	1.027 (26.1)	.617 (15.7)	.957 (24.3)	1.262 (32.1)	.125 (3.2)	.250 (6.4)
004	10	.6250-24 UNEF	.761 (19.3)	1.027 (26.1)	.734 (18.6)	.957 (24.3)	1.982 (50.3)	.125 (3.2)	.312 (7.9)
005	10	.6250-24 UNEF	.761 (19.3)	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	1.382 (35.1)	.250 (6.4)	.375 (9.5)
049	10	.6250-24 UNEF	1.516 (38.5)	1.027 (26.1)	.734 (18.6)	1.145 (29.1)	2.002 (50.9)	.250 (6.4)	.437 (11.1)
006	12	.7500-20 UNEF	.766 (19.5)	1.027 (26.1)	.858 (21.8)	.957 (24.3)	2.002 (50.9)	.125 (3.2)	.312 (7.9)
007	12	.7500-20 UNEF	.766 (19.5)	1.027 (26.1)	.858 (21.8)	1.145 (29.1)	2.002 (50.9)	.250 (6.4)	.437 (11.1)
008	12	.7500-20 UNEF	.766 (19.5)	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	1.397 (35.5)	.350 (8.9)	.500 (12.7)
071	12	.7500-20 UNEF	1.811 (46.0)	1.027 (26.1)	.858 (21.8)	1.332 (33.8)	2.162 (54.9)	.350 (8.9)	.625 (15.9)
074	14	.8750-20 UNEF	.866 (22.0)	1.027 (26.1)	.984 (25.0)	.957 (24.3)	2.072 (52.6)	.125 (3.2)	.312 (7.9)
009	14	.8750-20 UNEF	.866 (22.0)	1.027 (26.1)	.984 (25.0)	1.145 (29.1)	2.072 (52.6)	.250 (6.4)	.437 (11.1)
010	14	.8750-20 UNEF	.866 (22.0)	1.027 (26.1)	.984 (25.0)	1.332 (33.8)	1.717 (43.6)	.350 (8.9)	.575 (14.6)
050	14	.8750-20 UNEF	1.891 (48.0)	1.059 (26.9)	.984 (25.0)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
075	16	1.0000-20 UNEF	1.051 (26.7)	1.027 (26.1)	1.112 (28.2)	.957 (24.3)	2.162 (54.9)	.125 (3.2)	.312 (7.9)
011	16	1.0000-20 UNEF	1.051 (26.7)	1.027 (26.1)	1.112 (28.2)	1.145 (29.1)	2.162 (54.9)	.250 (6.4)	.437 (11.1)
040	16	1.0000-20 UNEF	1.051 (26.7)	1.027 (26.1)	1.112 (28.2)	1.332 (33.8)	2.162 (54.9)	.350 (8.9)	.625 (15.9)
012	16	1.0000-20 UNEF	1.051 (26.7)	1.059 (26.9)	1.112 (28.2)	1.551 (39.4)	1.807 (45.9)	.500 (12.7)	.700 (17.8)
051	16	1.0000-20 UNEF	2.041 (51.8)	1.156 (29.4)	1.112 (28.2)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
041	18	1.0625-18 UNEF	1.141 (29.0)	1.027 (26.1)	1.218 (30.9)	.957 (24.3)	2.332 (59.2)	.125 (3.2)	.312 (7.9)
042	18	1.0625-18 UNEF	1.141 (29.0)	1.027 (26.1)	1.218 (30.9)	1.145 (29.1)	2.332 (59.2)	.250 (6.4)	.437 (11.1)
013	18	1.0625-18 UNEF	1.141 (29.0)	1.027 (26.1)	1.218 (30.9)	1.332 (33.8)	2.332 (59.2)	.350 (8.9)	.625 (15.9)
052	18	1.0625-18 UNEF	1.141 (29.0)	1.059 (26.9)	1.218 (30.9)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)
014	18	1.0625-18 UNEF	1.141 (29.0)	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	1.982 (50.3)	.625 (15.9)	.779 (19.8)
072	18	1.0625-18 UNEF	2.051 (52.1)	1.156 (29.4)	1.218 (30.9)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
043	20	1.1875-18 UNEF	1.141 (29.0)	1.027 (26.1)	1.345 (34.2)	1.145 (29.1)	2.332 (59.2)	.250 (6.4)	.437 (11.1)
015	20	1.1875-18 UNEF	1.141 (29.0)	1.027 (26.1)	1.345 (34.2)	1.332 (33.8)	2.332 (59.2)	.350 (8.9)	.625 (15.9)
054	20	1.1875-18 UNEF	1.141 (29.0)	1.059 (26.9)	1.345 (34.2)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)
016	20	1.1875-18 UNEF	1.141 (29.0)	1.156 (29.4)	1.345 (34.2)	1.770 (45.0)	1.982 (50.3)	.625 (15.9)	.904 (23.0)
055	20	1.1875-18 UNEF	2.141 (54.4)	1.375 (34.9)	1.345 (34.2)	2.113 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)
044	22	1.3125-18 UNEF	1.291 (32.8)	1.027 (26.1)	1.468 (37.3)	.957 (24.3)	2.442 (62.0)	.125 (3.2)	.312 (7.9)
045	22	1.3125-18 UNEF	1.291 (32.8)	1.027 (26.1)	1.468 (37.3)	1.145 (29.1)	2.442 (62.0)	.250 (6.4)	.437 (11.1)
056	22	1.3125-18 UNEF	1.291 (32.8)	1.027 (26.1)	1.468 (37.3)	1.332 (33.8)	2.442 (62.0)	.350 (8.9)	.625 (15.9)
017	22	1.3125-18 UNEF	1.291 (32.8)	1.059 (26.9)	1.468 (37.3)	1.551 (39.4)	2.442 (62.0)	.500 (12.7)	.750 (19.1)
057	22	1.3125-18 UNEF	1.291 (32.8)	1.156 (29.4)	1.468 (37.3)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
018	22	1.3125-18 UNEF	1.291 (32.8)	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	2.087 (53.0)	.875 (22.2)	1.029 (26.1)
058	22	1.3125-18 UNEF	2.141 (54.4)	1.375 (34.9)	1.468 (37.3)	2.113 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)
046	24	1.4375-18 UNEF	1.291 (32.8)	1.027 (26.1)	1.593 (40.5)	1.332 (33.8)	2.442 (62.0)	.350 (8.9)	.625 (15.9)
019	24	1.4375-18 UNEF	1.291 (32.8)	1.059 (26.9)	1.593 (40.5)	1.551 (39.4)	2.442 (62.0)	.500 (12.7)	.750 (19.1)
059	24	1.4375-18 UNEF	1.291 (32.8)	1.156 (29.4)	1.593 (40.5)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
020	24	1.4375-18 UNEF	1.291 (32.8)	1.375 (34.9)	1.593 (40.5)	2.113 (53.7)	2.087 (53.0)	.875 (22.2)	1.114 (29.1)
073	24	1.4375-18 UNEF	2.151 (54.6)	1.375 (34.9)	1.593 (40.5)	2.116 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).



DON'T GET SHOCKED BY UNEXPECTED SYSTEM FAILURE



Get Complete IP67 & EMI/RFI Protection

Our EMI/RFI environmental backshells offer the ultimate protection for shielded applications. In addition to providing complete IP67 environmental protection, they protect your system against electromagnetic and radio frequency interference, which may cause system malfunction or catastrophic failure. Full protection—complete peace of mind.



EVR2 - 009 N

- 1 BASIC PART NUMBER
- 2 DASH NO.
- 3 MATERIAL & FINISH

EVR2 Straight EMI/RFI env. backshell

See Backshell Dimensions table below

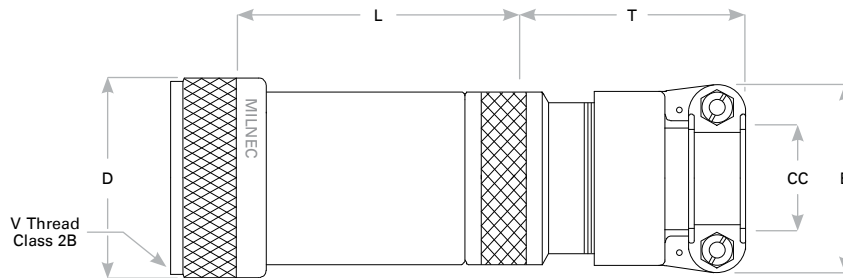
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium



Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVR2 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
005	8	.5000-20 UNF	1.544 (39.2)	.617 (15.7)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.250 (6.4)
006	8	.5000-20 UNF	1.544 (39.2)	.617 (15.7)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.250 (6.4)
007	8	.5000-20 UNF	1.544 (39.2)	.617 (15.7)	1.145 (29.1)	2.875 (73.0)	.250 (6.4)	.437 (11.1)
008	8	.5000-20 UNF	1.544 (39.2)	.617 (15.7)	1.145 (29.1)	3.875 (98.4)	.250 (6.4)	.437 (11.1)
009	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
010	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
136	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.375 (9.5)
137	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.375 (9.5)
011	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	2.875 (73.0)	.250 (6.4)	.437 (11.1)
012	10	.6250-24 UNEF	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	3.875 (98.4)	.250 (6.4)	.437 (11.1)
114	12	.7500-20 UNEF	1.544 (39.2)	.860 (21.8)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Straight EMI/RFI Env. Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
115	12	.7500-20 UNEF	1.544 (39.2)	.860 (21.8)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
013	12	.7500-20 UNEF	1.544 (39.2)	.860 (21.8)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
014	12	.7500-20 UNEF	1.544 (39.2)	.860 (21.8)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
138	12	.7500-20 UNEF	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.500 (12.7)
139	12	.7500-20 UNEF	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.500 (12.7)
111	12	.7500-20 UNEF	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.500 (12.7)
015	12	.7500-20 UNEF	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	2.875 (73.0)	.350 (8.9)	.625 (15.9)
016	12	.7500-20 UNEF	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	3.875 (98.4)	.350 (8.9)	.625 (15.9)
150	14	.8750-20 UNEF	1.544 (39.2)	.980 (24.9)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
151	14	.8750-20 UNEF	1.544 (39.2)	.980 (24.9)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
116	14	.8750-20 UNEF	1.544 (39.2)	.980 (24.9)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
117	14	.8750-20 UNEF	1.544 (39.2)	.980 (24.9)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
017	14	.8750-20 UNEF	1.844 (46.8)	.980 (24.9)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.575 (14.6)
018	14	.8750-20 UNEF	1.844 (46.8)	.980 (24.9)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.575 (14.6)
019	14	.8750-20 UNEF	1.916 (48.7)	.980 (24.9)	1.551 (39.4)	2.875 (73.0)	.500 (12.7)	.750 (19.1)
020	14	.8750-20 UNEF	1.916 (48.7)	.980 (24.9)	1.551 (39.4)	3.875 (98.4)	.500 (12.7)	.750 (19.1)
152	16	1.0000-20 UNEF	1.544 (39.2)	1.110 (28.2)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
153	16	1.0000-20 UNEF	1.544 (39.2)	1.110 (28.2)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
112	16	1.0000-20 UNEF	1.544 (39.2)	1.110 (28.2)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
113	16	1.0000-20 UNEF	1.544 (39.2)	1.110 (28.2)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
118	16	1.0000-20 UNEF	1.844 (46.8)	1.110 (28.2)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.625 (15.9)
119	16	1.0000-20 UNEF	1.844 (46.8)	1.110 (28.2)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
021	16	1.0000-20 UNEF	1.916 (48.7)	1.110 (28.2)	1.551 (39.4)	2.125 (54.0)	.500 (12.7)	.700 (17.8)
022	16	1.0000-20 UNEF	1.916 (48.7)	1.110 (28.2)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.700 (17.8)
023	16	1.0000-20 UNEF	2.000 (50.8)	1.110 (28.2)	1.770 (45.0)	2.875 (73.0)	.625 (15.9)	.937 (23.8)
024	16	1.0000-20 UNEF	2.000 (50.8)	1.110 (28.2)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
120	18	1.0625-18 UNEF	1.544 (39.2)	1.220 (31.0)	.957 (24.3)	2.125 (54.0)	.125 (3.2)	.312 (7.9)
121	18	1.0625-18 UNEF	1.544 (39.2)	1.220 (31.0)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
122	18	1.0625-18 UNEF	1.544 (39.2)	1.220 (31.0)	1.145 (29.1)	2.125 (54.0)	.250 (6.4)	.437 (11.1)
123	18	1.0625-18 UNEF	1.544 (39.2)	1.220 (31.0)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
025	18	1.0625-18 UNEF	1.844 (46.8)	1.220 (31.0)	1.332 (33.8)	2.125 (54.0)	.350 (8.9)	.625 (15.9)
026	18	1.0625-18 UNEF	1.844 (46.8)	1.220 (31.0)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
027	18	1.0625-18 UNEF	1.916 (48.7)	1.220 (31.0)	1.551 (39.4)	2.125 (54.0)	.500 (12.7)	.750 (19.1)
028	18	1.0625-18 UNEF	1.916 (48.7)	1.220 (31.0)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
029	18	1.0625-18 UNEF	2.000 (50.8)	1.220 (31.0)	1.770 (45.0)	2.875 (73.0)	.625 (15.9)	.937 (23.8)
030	18	1.0625-18 UNEF	2.000 (50.8)	1.220 (31.0)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
124	20	1.1875-18 UNEF	1.544 (39.2)	1.340 (34.0)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
125	20	1.1875-18 UNEF	1.544 (39.2)	1.340 (34.0)	1.145 (29.1)	4.125 (104.8)	.250 (6.4)	.437 (11.1)
031	20	1.1875-18 UNEF	1.844 (46.8)	1.340 (34.0)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
032	20	1.1875-18 UNEF	1.844 (46.8)	1.340 (34.0)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
033	20	1.1875-18 UNEF	1.916 (48.7)	1.340 (34.0)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
034	20	1.1875-18 UNEF	1.916 (48.7)	1.340 (34.0)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
140	20	1.1875-18 UNEF	2.000 (50.8)	1.340 (34.0)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.904 (23.0)
141	20	1.1875-18 UNEF	2.000 (50.8)	1.340 (34.0)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.904 (23.0)
035	20	1.1875-18 UNEF	2.000 (50.8)	1.340 (34.0)	1.770 (45.0)	3.875 (98.4)	.625 (15.9)	.937 (23.8)
036	20	1.1875-18 UNEF	2.000 (50.8)	1.340 (34.0)	1.770 (45.0)	4.875 (123.8)	.625 (15.9)	.937 (23.8)
037	20	1.1875-18 UNEF	2.230 (56.6)	1.340 (34.0)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
038	20	1.1875-18 UNEF	2.230 (56.6)	1.340 (34.0)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Backshell Dimensions (Continued from previous page)

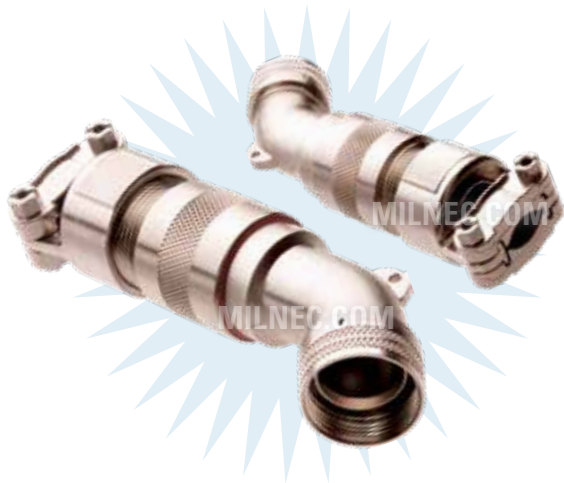
Dash No.	Shell Size	V Thread Class 2B	T	D	B	L	CC Cable Clearance	
							Min	Max
126	22	1.3125-18 UNEF	1.544 (39.2)	1.470 (37.3)	.957 (24.3)	3.125 (79.4)	.125 (3.2)	.312 (7.9)
127	22	1.3125-18 UNEF	1.544 (39.2)	1.470 (37.3)	.957 (24.3)	4.125 (104.8)	.125 (3.2)	.312 (7.9)
128	22	1.3125-18 UNEF	1.544 (39.2)	1.470 (37.3)	1.145 (29.1)	3.125 (79.4)	.250 (6.4)	.437 (11.1)
129	22	1.3125-18 UNEF	1.544 (39.2)	1.470 (37.3)	1.145 (29.1)	4.125 (104.8)	.250 (6.4)	.437 (11.1)
039	22	1.3125-18 UNEF	1.844 (46.8)	1.470 (37.3)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
040	22	1.3125-18 UNEF	1.844 (46.8)	1.470 (37.3)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
041	22	1.3125-18 UNEF	1.916 (48.7)	1.470 (37.3)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
042	22	1.3125-18 UNEF	1.916 (48.7)	1.470 (37.3)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
043	22	1.3125-18 UNEF	2.000 (50.8)	1.470 (37.3)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.937 (23.8)
044	22	1.3125-18 UNEF	2.000 (50.8)	1.470 (37.3)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.937 (23.8)
142	22	1.3125-18 UNEF	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	3.125 (79.4)	.875 (22.2)	1.029 (26.1)
143	22	1.3125-18 UNEF	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	4.125 (104.8)	.875 (22.2)	1.029 (26.1)
045	22	1.3125-18 UNEF	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
046	22	1.3125-18 UNEF	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)
130	24	1.4375-18 UNEF	1.844 (46.8)	1.590 (40.4)	1.332 (33.8)	3.125 (79.4)	.350 (8.9)	.625 (15.9)
131	24	1.4375-18 UNEF	1.844 (46.8)	1.590 (40.4)	1.332 (33.8)	4.125 (104.8)	.350 (8.9)	.625 (15.9)
047	24	1.4375-18 UNEF	1.916 (48.7)	1.590 (40.4)	1.551 (39.4)	3.125 (79.4)	.500 (12.7)	.750 (19.1)
048	24	1.4375-18 UNEF	1.916 (48.7)	1.590 (40.4)	1.551 (39.4)	4.125 (104.8)	.500 (12.7)	.750 (19.1)
049	24	1.4375-18 UNEF	2.000 (50.8)	1.590 (40.4)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.812 (20.6)
050	24	1.4375-18 UNEF	2.000 (50.8)	1.590 (40.4)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.812 (20.6)
051	24	1.4375-18 UNEF	2.000 (50.8)	1.590 (40.4)	1.770 (45.0)	3.125 (79.4)	.625 (15.9)	.937 (23.8)
052	24	1.4375-18 UNEF	2.000 (50.8)	1.590 (40.4)	1.770 (45.0)	4.125 (104.8)	.625 (15.9)	.937 (23.8)
144	24	1.4375-18 UNEF	2.230 (56.6)	1.590 (40.4)	2.113 (53.7)	3.125 (79.4)	.875 (22.2)	1.144 (29.1)
145	24	1.4375-18 UNEF	2.230 (56.6)	1.590 (40.4)	2.113 (53.7)	4.125 (104.8)	.875 (22.2)	1.144 (29.1)
053	24	1.4375-18 UNEF	2.230 (56.6)	1.590 (40.4)	2.113 (53.7)	3.875 (98.4)	.875 (22.2)	1.250 (31.8)
054	24	1.4375-18 UNEF	2.230 (56.6)	1.590 (40.4)	2.113 (53.7)	4.875 (123.8)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).



45° EMI/RFI Env. Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



EVR3 - 009 N

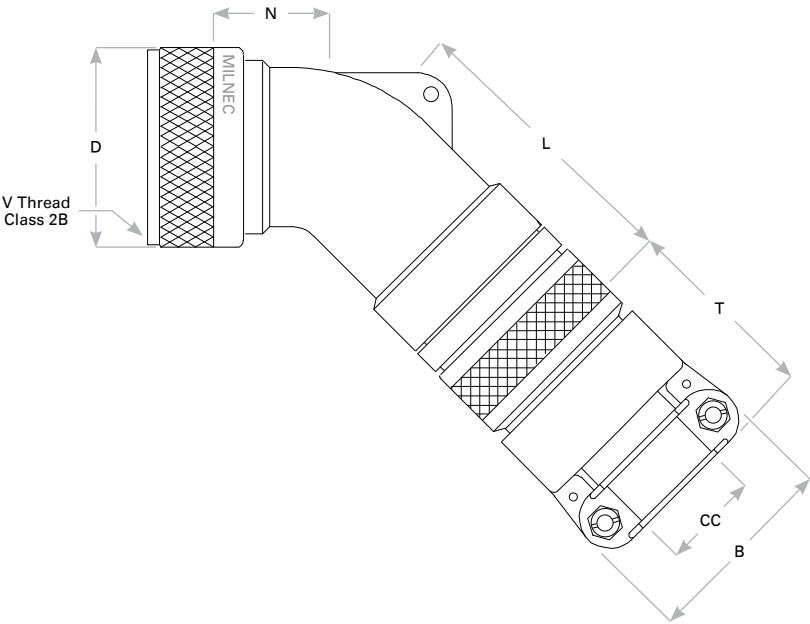
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- 2
- 3
- 1
- 2
- 3
- BASIC PART NUMBER**
EVR3 45° EMI/RFI env. backshell
- DASH NO.**
See Backshell Dimensions table below
- MATERIAL & FINISH**

- N
- W
- Aluminum, electroless nickel
- Aluminum, olive drab cadmium

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVR3 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
003	8	.5000-20 UNF	.625 (15.9)	1.544 (39.2)	.617 (15.7)	.957 (24.3)	1.244 (31.6)	.125 (3.2)	.250 (6.4)
004	10	.6250-24 UNEF	.686 (17.4)	1.544 (39.2)	.734 (18.6)	.957 (24.3)	1.912 (48.6)	.125 (3.2)	.312 (7.9)
005	10	.6250-24 UNEF	.686 (17.4)	1.544 (39.2)	.734 (18.6)	1.145 (29.1)	1.307 (33.2)	.250 (6.4)	.375 (9.5)
049	10	.6250-24 UNEF	1.500 (38.1)	1.544 (39.2)	.734 (18.6)	1.145 (29.1)	1.972 (50.1)	.250 (6.4)	.437 (11.1)
006	12	.7500-20 UNEF	.750 (19.1)	1.544 (39.2)	.858 (21.8)	.957 (24.3)	1.972 (50.1)	.125 (3.2)	.312 (7.9)

Dimensions are in inches (mm). (Continued on next page) Rev. 2314

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
007	12	.7500-20 UNEF	.750 (19.1)	1.544 (39.2)	.858 (21.8)	1.145 (29.1)	1.972 (50.1)	.250 (6.4)	.437 (11.1)
008	12	.7500-20 UNEF	.750 (19.1)	1.844 (46.8)	.858 (21.8)	1.332 (33.8)	1.972 (50.1)	.350 (8.9)	.500 (12.7)
071	12	.7500-20 UNEF	1.654 (42.0)	1.844 (46.8)	.858 (21.8)	1.332 (33.8)	2.172 (55.2)	.350 (8.9)	.625 (15.9)
074	14	.8750-20 UNEF	.813 (20.7)	1.544 (39.2)	.984 (25.0)	.957 (24.3)	2.062 (52.4)	.125 (3.2)	.312 (7.9)
009	14	.8750-20 UNEF	.813 (20.7)	1.544 (39.2)	.984 (25.0)	1.145 (29.1)	2.062 (52.4)	.250 (6.4)	.437 (11.1)
010	14	.8750-20 UNEF	.813 (20.7)	1.844 (46.8)	.984 (25.0)	1.332 (33.8)	1.717 (43.6)	.350 (8.9)	.575 (14.6)
050	14	.8750-20 UNEF	1.842 (46.8)	1.916 (48.7)	.984 (25.0)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
075	16	1.0000-20 UNEF	.906 (23.0)	1.544 (39.2)	1.112 (28.2)	.957 (24.3)	2.172 (55.2)	.125 (3.2)	.312 (7.9)
011	16	1.0000-20 UNEF	.906 (23.0)	1.544 (39.2)	1.112 (28.2)	1.145 (29.1)	2.172 (55.2)	.250 (6.4)	.437 (11.1)
040	16	1.0000-20 UNEF	.906 (23.0)	1.844 (46.8)	1.112 (28.2)	1.332 (33.8)	2.172 (55.2)	.350 (8.9)	.625 (15.9)
012	16	1.0000-20 UNEF	.906 (23.0)	1.916 (48.7)	1.112 (28.2)	1.551 (39.4)	1.812 (46.0)	.500 (12.7)	.700 (17.8)
051	16	1.0000-20 UNEF	1.937 (49.2)	2.000 (50.8)	1.112 (28.2)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
041	18	1.0625-18 UNEF	1.093 (27.8)	1.544 (39.2)	1.218 (30.9)	.957 (24.3)	2.362 (60.0)	.125 (3.2)	.312 (7.9)
042	18	1.0625-18 UNEF	1.093 (27.8)	1.544 (39.2)	1.218 (30.9)	1.145 (29.1)	2.362 (60.0)	.250 (6.4)	.437 (11.1)
013	18	1.0625-18 UNEF	1.093 (27.8)	1.844 (46.8)	1.218 (30.9)	1.332 (33.8)	2.362 (60.0)	.350 (8.9)	.625 (15.9)
052	18	1.0625-18 UNEF	1.093 (27.8)	1.916 (48.7)	1.218 (30.9)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
014	18	1.0625-18 UNEF	1.093 (27.8)	2.000 (50.8)	1.218 (30.9)	1.770 (45.0)	2.000 (50.8)	.625 (15.9)	.779 (19.8)
072	18	1.0625-18 UNEF	1.937 (49.2)	2.000 (50.8)	1.218 (30.9)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
043	20	1.1875-18 UNEF	1.093 (27.8)	1.544 (39.2)	1.345 (34.2)	1.145 (29.1)	2.362 (60.0)	.250 (6.4)	.437 (11.1)
015	20	1.1875-18 UNEF	1.093 (27.8)	1.844 (46.8)	1.345 (34.2)	1.332 (33.8)	2.362 (60.0)	.350 (8.9)	.625 (15.9)
054	20	1.1875-18 UNEF	1.093 (27.8)	1.916 (48.7)	1.345 (34.2)	1.551 (39.4)	2.362 (60.0)	.500 (12.7)	.750 (19.1)
016	20	1.1875-18 UNEF	1.093 (27.8)	2.000 (50.8)	1.345 (34.2)	1.770 (45.0)	2.000 (50.8)	.625 (15.9)	.904 (23.0)
055	20	1.1875-18 UNEF	2.061 (52.3)	2.230 (56.6)	1.345 (34.2)	2.113 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)
044	22	1.3125-18 UNEF	1.188 (30.2)	1.544 (39.2)	1.468 (37.3)	.957 (24.3)	2.512 (63.8)	.125 (3.2)	.312 (7.9)
045	22	1.3125-18 UNEF	1.188 (30.2)	1.544 (39.2)	1.468 (37.3)	1.145 (29.1)	2.512 (63.8)	.250 (6.4)	.437 (11.1)
056	22	1.3125-18 UNEF	1.188 (30.2)	1.844 (46.8)	1.468 (37.3)	1.332 (33.8)	2.512 (63.8)	.350 (8.9)	.625 (15.9)
017	22	1.3125-18 UNEF	1.188 (30.2)	1.916 (48.7)	1.468 (37.3)	1.551 (39.4)	2.512 (63.8)	.500 (12.7)	.750 (19.1)
057	22	1.3125-18 UNEF	1.188 (30.2)	2.000 (50.8)	1.468 (37.3)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
018	22	1.3125-18 UNEF	1.188 (30.2)	2.230 (56.6)	1.468 (37.3)	2.113 (53.7)	2.155 (54.7)	.875 (22.2)	1.029 (26.1)
058	22	1.3125-18 UNEF	2.061 (52.3)	2.230 (56.6)	1.468 (37.3)	2.113 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)
046	24	1.4375-18 UNEF	1.188 (30.2)	1.844 (46.8)	1.593 (40.5)	1.332 (33.8)	2.512 (63.8)	.350 (8.9)	.625 (15.9)
019	24	1.4375-18 UNEF	1.188 (30.2)	1.916 (48.7)	1.593 (40.5)	1.551 (39.4)	2.512 (63.8)	.500 (12.7)	.750 (19.1)
059	24	1.4375-18 UNEF	1.188 (30.2)	2.000 (50.8)	1.593 (40.5)	1.770 (45.0)	2.512 (63.8)	.625 (15.9)	.937 (23.8)
020	24	1.4375-18 UNEF	1.188 (30.2)	2.230 (56.6)	1.593 (40.5)	2.113 (53.7)	2.155 (54.7)	.875 (22.2)	1.144 (29.1)
073	24	1.4375-18 UNEF	2.061 (52.3)	2.230 (56.6)	1.593 (40.5)	2.116 (53.7)	2.562 (65.1)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).

90° EMI/RFI Env. Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



EVR4 - 009 N

- 1

2

3
- 1

2

3
- BASIC PART NUMBER**

EVR4 90° EMI/RFI env. backshell

DASH NO.

See Backshell Dimensions table below

MATERIAL & FINISH

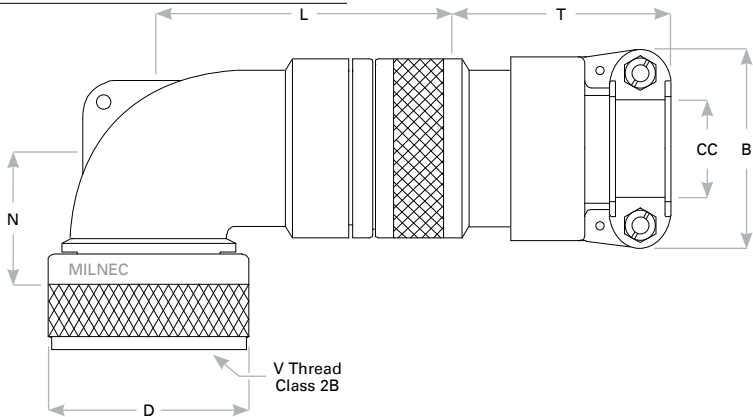
N Aluminum, electroless nickel

W Aluminum, olive drab cadmium

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVR4 Compatibility

Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36



Backshell Dimensions

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
003	8	.5000-20 UNF	.666 (16.9)	1.544 (39.2)	.617 (15.7)	.957 (24.3)	1.262 (32.1)	.125 (3.2)	.250 (6.4)
004	10	.6250-24 UNEF	.761 (19.3)	1.544 (39.2)	.730 (18.5)	.957 (24.3)	1.982 (50.3)	.125 (3.2)	.312 (7.9)
005	10	.6250-24 UNEF	.761 (19.3)	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	1.382 (35.1)	.250 (6.4)	.375 (9.5)
049	10	.6250-24 UNEF	1.516 (38.5)	1.544 (39.2)	.730 (18.5)	1.145 (29.1)	2.002 (50.9)	.250 (6.4)	.437 (11.1)
006	12	.7500-20 UNEF	.766 (19.5)	1.544 (39.2)	.860 (21.8)	.957 (24.3)	2.002 (50.9)	.125 (3.2)	.312 (7.9)
007	12	.7500-20 UNEF	.766 (19.5)	1.544 (39.2)	.860 (21.8)	1.145 (29.1)	2.002 (50.9)	.250 (6.4)	.437 (11.1)
008	12	.7500-20 UNEF	.766 (19.5)	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	1.397 (35.5)	.350 (8.9)	.500 (12.7)
071	12	.7500-20 UNEF	1.811 (46.0)	1.844 (46.8)	.860 (21.8)	1.332 (33.8)	2.162 (54.9)	.350 (8.9)	.625 (15.9)
074	14	.8750-20 UNEF	.866 (22.0)	1.544 (39.2)	.980 (24.9)	.957 (24.3)	2.072 (52.6)	.125 (3.2)	.312 (7.9)
009	14	.8750-20 UNEF	.866 (22.0)	1.544 (39.2)	.980 (24.9)	1.145 (29.1)	2.072 (52.6)	.250 (6.4)	.437 (11.1)
010	14	.8750-20 UNEF	.866 (22.0)	1.844 (46.8)	.980 (24.9)	1.332 (33.8)	1.717 (43.6)	.350 (8.9)	.575 (14.6)
050	14	.8750-20 UNEF	1.891 (48.0)	1.916 (48.7)	.980 (24.9)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2314

Backshell Dimensions (Continued from previous page)

Dash No.	Shell Size	V Thread Class 2B	N	T	D	B	L	CC Cable Clearance	
								Min	Max
075	16	1.0000-20 UNEF	1.051 (26.7)	1.544 (39.2)	1.110 (28.2)	.957 (24.3)	2.162 (54.9)	.125 (3.2)	.312 (7.9)
011	16	1.0000-20 UNEF	1.051 (26.7)	1.544 (39.2)	1.110 (28.2)	1.145 (29.1)	2.162 (54.9)	.250 (6.4)	.437 (11.1)
012	16	1.0000-20 UNEF	1.051 (26.7)	1.916 (48.7)	1.110 (28.2)	1.551 (39.4)	1.807 (45.9)	.500 (12.7)	.700 (17.8)
051	16	1.0000-20 UNEF	2.041 (51.8)	2.000 (50.8)	1.110 (28.2)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
041	18	1.0625-18 UNEF	1.141 (29.0)	1.544 (39.2)	1.220 (31.0)	.957 (24.3)	2.332 (59.2)	.125 (3.2)	.312 (7.9)
042	18	1.0625-18 UNEF	1.141 (29.0)	1.544 (39.2)	1.220 (31.0)	1.145 (29.1)	2.332 (59.2)	.250 (6.4)	.437 (11.1)
013	18	1.0625-18 UNEF	1.141 (29.0)	1.844 (46.8)	1.220 (31.0)	1.332 (33.8)	2.332 (59.2)	.350 (8.9)	.625 (15.9)
052	18	1.0625-18 UNEF	1.141 (29.0)	1.916 (48.7)	1.220 (31.0)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)
014	18	1.0625-18 UNEF	1.141 (29.0)	2.000 (50.8)	1.220 (31.0)	1.770 (45.0)	1.982 (50.3)	.625 (15.9)	.779 (19.8)
072	18	1.0625-18 UNEF	2.051 (52.1)	2.000 (50.8)	1.220 (31.0)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
043	20	1.1875-18 UNEF	1.141 (29.0)	1.544 (39.2)	1.340 (34.0)	1.145 (29.1)	2.332 (59.2)	.250 (6.4)	.437 (11.1)
015	20	1.1875-18 UNEF	1.141 (29.0)	1.844 (46.8)	1.340 (34.0)	1.332 (33.8)	2.332 (59.2)	.350 (8.9)	.625 (15.9)
054	20	1.1875-18 UNEF	1.141 (29.0)	1.916 (48.7)	1.340 (34.0)	1.551 (39.4)	2.332 (59.2)	.500 (12.7)	.750 (19.1)
016	20	1.1875-18 UNEF	1.141 (29.0)	2.000 (50.8)	1.340 (34.0)	1.770 (45.0)	1.982 (50.3)	.625 (15.9)	.904 (23.0)
055	20	1.1875-18 UNEF	2.141 (54.4)	2.230 (56.6)	1.340 (34.0)	2.113 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)
044	22	1.3125-18 UNEF	1.291 (32.8)	1.544 (39.2)	1.470 (37.3)	.957 (24.3)	2.442 (62.0)	.125 (3.2)	.312 (7.9)
045	22	1.3125-18 UNEF	1.291 (32.8)	1.544 (39.2)	1.470 (37.3)	1.145 (29.1)	2.442 (62.0)	.250 (6.4)	.437 (11.1)
056	22	1.3125-18 UNEF	1.291 (32.8)	1.844 (46.8)	1.470 (37.3)	1.332 (33.8)	2.442 (62.0)	.350 (8.9)	.625 (15.9)
017	22	1.3125-18 UNEF	1.291 (32.8)	1.916 (48.7)	1.470 (37.3)	1.551 (39.4)	2.442 (62.0)	.500 (12.7)	.750 (19.1)
057	22	1.3125-18 UNEF	1.291 (32.8)	2.000 (50.8)	1.470 (37.3)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
018	22	1.3125-18 UNEF	1.291 (32.8)	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	2.087 (53.0)	.875 (22.2)	1.029 (26.1)
058	22	1.3125-18 UNEF	2.141 (54.4)	2.230 (56.6)	1.470 (37.3)	2.113 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)
046	24	1.4375-18 UNEF	1.291 (32.8)	1.844 (46.8)	1.590 (40.4)	1.332 (33.8)	2.442 (62.0)	.350 (8.9)	.625 (15.9)
019	24	1.4375-18 UNEF	1.291 (32.8)	1.916 (48.7)	1.590 (40.4)	1.551 (39.4)	2.442 (62.0)	.500 (12.7)	.750 (19.1)
059	24	1.4375-18 UNEF	1.291 (32.8)	2.000 (50.8)	1.590 (40.4)	1.770 (45.0)	2.442 (62.0)	.625 (15.9)	.937 (23.8)
020	24	1.4375-18 UNEF	1.291 (32.8)	2.230 (56.6)	1.590 (40.4)	2.113 (53.7)	2.087 (53.0)	.875 (22.2)	1.144 (29.1)
073	24	1.4375-18 UNEF	2.151 (54.6)	2.230 (56.6)	1.590 (40.4)	2.116 (53.7)	2.612 (66.3)	.875 (22.2)	1.250 (31.8)

Dimensions are in inches (mm).



Shorting Cap Backshell

EV Series • MIL-DTL-83723 Series III Type Connectors



Optional Body Strap with Bolt Attachment

EVSC - 14 - 3 N 1

- 12345
- 1

BASIC PART NUMBER
EVSC Shorting cap backshell
- 2

SHELL SIZE
See Backshell Dimensions table below
- 3

BACKSHELL LENGTH
Length in whole inches (1 inch = 25.4 mm)
- 4

MATERIAL & FINISH
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
G Aluminum, electroless nickel (space-grade)
- 5

ATTACHMENT STYLE
1 No strap attachment
2 Body strap with bolt attachment

EVSC Compatibility

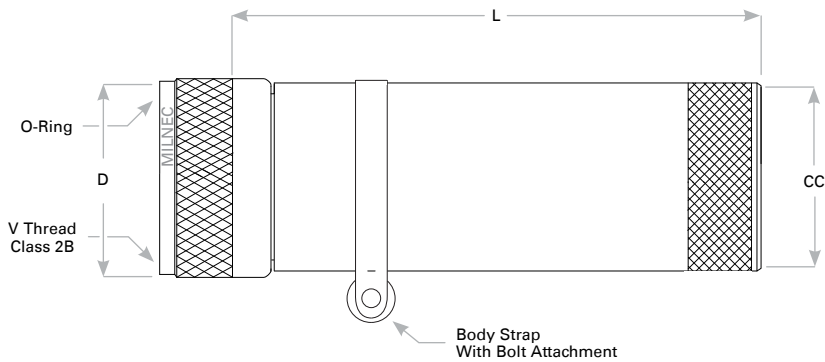
Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36

Backshell Dimensions

Shell Size	D	V Thread Class 2B	CC Internal Dia	L
8	.617 (15.7)	.5000-20 UNF	.250 (6.4)	
10	.770 (19.6)	.6250-24 UNEF	.355 (9.0)	
12	.860 (21.8)	.7500-20 UNEF	.491 (12.5)	
14	1.020 (25.9)	.8750-20 UNEF	.565 (14.4)	
16	1.210 (30.7)	1.0000-20 UNEF	.690 (17.5)	
18	1.230 (31.2)	1.0625-18 UNEF	.769 (19.5)	
20	1.360 (34.5)	1.1875-18 UNEF	.894 (22.7)	
22	1.480 (37.6)	1.3125-18 UNEF	1.019 (25.9)	
24	1.730 (43.9)	1.4375-18 UNEF	1.134 (28.8)	

Dimensions are in inches (mm).

Ordered in whole inch increments
Min = 1 inch (25.4 mm)
Max = 12 inches (304.8 mm)



Rev. 2314

CUSTOM TAILORED CONNECTORS



- Complete Mil-Spec Compatibility
- Wide Variety of Materials & Finishes
- More Backshells
- Specialized Contacts
- Additional Inserts
- More Shell Options

Military Strength—COTS Flexibility

Milnec builds connectors that meet and exceed established military specifications, while also providing additional options and features unavailable under the mil-spec. These commercial off the shelf (COTS) upgrades provide the strength and reliability of military specifications with the flexibility demanded by modern designs.



Straight Shrink Boot

EV Series • MIL-DTL-83723 Series III Type Connectors

EVK2 - 4 - 100

- 1 BASIC PART NUMBER
EVK2 Straight shrink boot
- 2 BOOT SIZE
See Boot Dimensions table below
- 3 MATERIAL

100 Halogen-free, semi-flexible elastomer pre-coated with hot-melt adhesive. Material has excellent fire-safety characteristics and is especially suited where people are confined in enclosed spaces (mass transit, aviation, vehicles, offshore, etc).

- Temp: -22° to +302°F (-30° to +150°C)
- Low-smoke index as defined by NES 711
- Low-toxicity index as defined by NES 713
- High-temp index as defined by NES 715

Environmental protection, low-profile design

A shrink boot provides complete IP67 environmental protection and strain relief. Must be used with a boot adapter.

* Please consult an authorized distributor for other high-temperature material and adhesive options.

Boot Size Recommendations

Boot Size	Cable Range		Shell Size									
	Min	Max	8	10	12	14	16	18	20	22	24	
2	.220 (5.6)	.550 (14.0)	✓	*	✓	*						
3	.230 (5.9)	.590 (15.0)					✓	*				
4	.280 (7.1)	.710 (18.0)							*	*		
5	.330 (8.4)	.830 (21.0)						✓		✓	*	
6	.390 (9.9)	.980 (25.0)								✓	✓	
7	.620 (15.7)	1.540 (39.0)										
8	.660 (16.8)	1.650 (42.0)										

Dimensions are in inches (mm). ✓ Recommended boot size for (EVAB) Shrink Boot Adapter, p. T-46.

* Recommended boot size for (EVD2, EVD3, EVD4) EMI/RFI Shrink Boot Adapter, p. T-47.

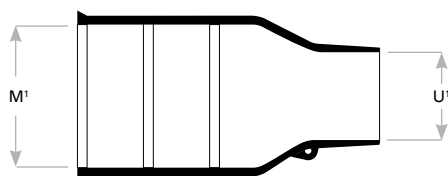
Boot Dimensions

Boot Size	M ¹	U ¹	M ²	U ²	L ¹	R ¹	T [*]	W [†]	FF [*]
2	.940 (24.0)	.550 (14.0)	.410 (10.4)	.220 (5.6)	1.500 (38.0)	.830 (21.0)	.330 (8.5)	.470 (12.0)	.060 (1.6)
3	1.180 (30.0)	.590 (15.0)	.560 (14.2)	.230 (5.9)	2.170 (55.0)	1.260 (32.0)	.450 (11.5)	.470 (12.0)	.070 (1.8)
4	1.220 (31.0)	.710 (18.0)	.710 (18.0)	.280 (7.1)	2.640 (67.0)	1.380 (35.0)	.670 (17.0)	.790 (20.0)	.070 (1.8)
5	1.420 (36.0)	.830 (21.0)	.880 (22.4)	.330 (8.4)	3.150 (80.0)	1.650 (42.0)	.760 (19.5)	.790 (20.0)	.080 (2.0)
6	1.690 (43.0)	.980 (25.0)	1.110 (28.2)	.390 (9.9)	3.900 (99.0)	2.400 (61.0)	.820 (21.0)	.790 (20.0)	.090 (2.2)
7	2.050 (52.0)	1.540 (39.0)	1.380 (35.1)	.620 (15.7)	5.120 (130.0)	2.830 (72.0)	1.530 (39.0)	.790 (20.0)	.130 (3.2)
8	2.600 (66.0)	1.650 (42.0)	1.750 (44.5)	.660 (16.8)	6.690 (170.0)	3.540 (90.0)	2.020 (51.5)	.790 (20.0)	.150 (3.8)

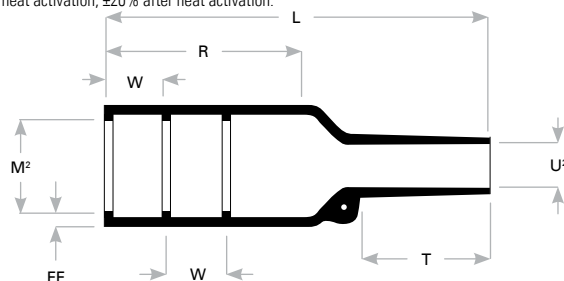
Dimensions are in inches (mm).

† Dimensions ±10% before and after heat activation.

* Dimensions ±10% before heat activation, ±20% after heat activation.



Before Heat Activation



After Heat Activation

Rev. 2314

EVK4 - 4 - 100

1 2 3

1 BASIC PART NUMBER

EVK4 90° shrink boot

2 BOOT SIZE

See Boot Dimensions table below

3 MATERIAL

100

Halogen-free, semi-flexible elastomer pre-coated with hot-melt adhesive. Material has excellent fire-safety characteristics and is especially suited where people are confined in enclosed spaces (mass transit, aviation, vehicles, offshore, etc).

- Temp: -22° to +302°F (-30° to +150°C)
- Low-smoke index as defined by NES 711
- Low-toxicity index as defined by NES 713
- High-temp index as defined NES 715

* Please consult an authorized distributor for other high-temperature material and adhesive options.

**Angled boot for simple cable management**

A 90° shrink boot offers simple cable management, strain relief, and environmental protection. For proper installation, it must be used with a boot adapter.

Boot Size Recommendations

Boot Size	Cable Range		Shell Size									
	Min	Max	8	10	12	14	16	18	20	22	24	
2	.220 (5.6)	.550 (14.0)	✓	*	✓	*						
3	.230 (5.9)	.590 (15.0)					✓	*				
4	.280 (7.1)	.710 (18.0)							*	*		
5	.330 (8.4)	.830 (21.0)						✓		✓	*	
6	.390 (9.9)	.980 (25.0)								✓	✓	
7	.620 (15.7)	1.540 (39.0)										
8	.660 (16.8)	1.650 (42.0)										

Dimensions are in inches (mm).

✓ Recommended boot size for (EVAB) Shrink Boot Adapter, p. T-46.

* Recommended boot size for (EVD2, EVD3, EVD4) EMI/RFI Shrink Boot Adapter, p. T-47.

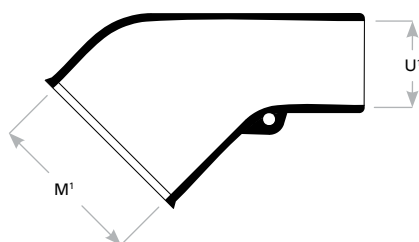
Boot Dimensions

Boot Size	M ¹	U ¹	M ²	U ²	L ²	R ²	T ²	W ²	FF ²
2	.940 (24.0)	.550 (14.0)	.410 (10.4)	.220 (5.6)	.980 (25.0)	.980 (25.0)	.630 (16.0)	.750 (19.0)	.050 (1.3)
3	1.180 (30.0)	.590 (15.0)	.560 (14.2)	.230 (5.9)	1.260 (32.0)	1.060 (27.0)	.790 (20.0)	.790 (20.0)	.060 (1.5)
4	1.220 (31.0)	.710 (18.0)	.710 (18.0)	.280 (7.1)	1.540 (39.0)	1.220 (31.0)	.790 (20.0)	.830 (21.0)	.070 (1.8)
5	1.420 (36.0)	.830 (21.0)	.880 (22.4)	.330 (8.4)	1.810 (46.0)	1.500 (38.0)	.980 (25.0)	1.020 (26.0)	.070 (1.8)
6	1.690 (43.0)	.980 (25.0)	1.110 (28.2)	.390 (9.9)	2.171 (55.0)	1.770 (45.0)	1.180 (30.0)	1.180 (30.0)	.080 (2.0)
7	2.050 (52.0)	1.540 (39.0)	1.380 (35.1)	.620 (15.7)	3.150 (80.0)	2.130 (54.0)	1.770 (45.0)	1.380 (35.0)	.130 (3.3)
8	2.600 (66.0)	1.650 (42.0)	1.750 (44.5)	.660 (16.8)	4.250 (108.0)	2.680 (68.0)	2.760 (70.0)	1.650 (42.0)	.150 (3.8)

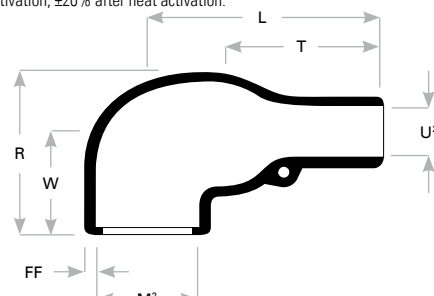
Dimensions are in inches (mm).

† Dimensions ±10% before and after heat activation.

* Dimensions ±10% before heat activation, ±20% after heat activation.



Before Heat Activation



After Heat Activation

Rev. 2314

Boot Adapter

EV Series • MIL-DTL-83723 Series III Type Connectors



EVAB - 16 N - K2

- 1 **BASIC PART NUMBER**
EVAB Boot adapter
- 2 **SHELL SIZE**
See Adapter Dimensions table below
- 3 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
B Aluminum, hardcoat anodize
- 4 **OPTIONAL BOOT KIT (OMIT FOR NONE)**
K2 Includes recommended straight shrink boot in standard material 100, p. T-44
K4 Includes recommended 90° shrink boot in standard material 100, p. T-45

EVAB Compatibility

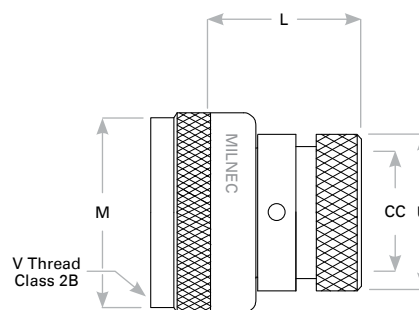
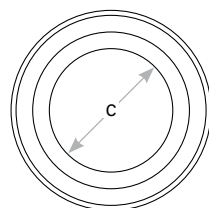
Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

Adapter Dimensions

Shell Size	CC Cable Clearance	L	M	U	V Thread Class 2B
8	.250 (6.4)	.832 (21.1)	.617 (15.7)	.533 (13.5)	.5000-20 UNF
10	.355 (9.0)	.832 (21.1)	.770 (19.6)	.605 (15.4)	.6250-24 UNEF
12	.491 (12.5)	.832 (21.1)	.860 (21.8)	.774 (19.7)	.7500-20 UNEF
14	.565 (14.4)	.832 (21.1)	1.020 (25.9)	.838 (21.3)	.8750-20 UNEF
16	.690 (17.5)	.832 (21.1)	1.210 (30.7)	.963 (24.5)	1.0000-20 UNEF
18	.769 (19.5)	.832 (21.1)	1.230 (31.2)	1.042 (26.5)	1.0625-18 UNEF
20	.894 (22.7)	.832 (21.1)	1.360 (34.5)	1.217 (30.9)	1.1875-18 UNEF
22	1.019 (25.9)	.832 (21.1)	1.480 (37.6)	1.355 (34.4)	1.3125-18 UNEF
24	1.134 (28.8)	.832 (21.1)	1.730 (43.9)	1.443 (36.7)	1.4375-18 UNEF

Dimensions are in inches (mm).



Rev. 2314

EMI/RFI Banding Boot Adapter

EV Series • MIL-DTL-83723 Series III Type Connectors

EVD2 - 16 N - K2



1 2 3 4

1 BASIC PART NUMBER

- EVD2** Straight EMI/RFI boot adapter
 - EVD3** 45° EMI/RFI boot adapter
 - EVD4** 90° EMI/RFI boot adapter
- (Includes shield termination band TB250, p. T-57)

2 SHELL SIZE

See Backshell Dimensions table below

3 MATERIAL & FINISH

- N** Aluminum, electroless nickel
- W** Aluminum, olive drab cadmium

4 OPTIONAL BOOT KIT (OMIT FOR NONE)

- K2** Includes recommended straight shrink boot in standard material 100, p. T-44

EVD2 Compatibility

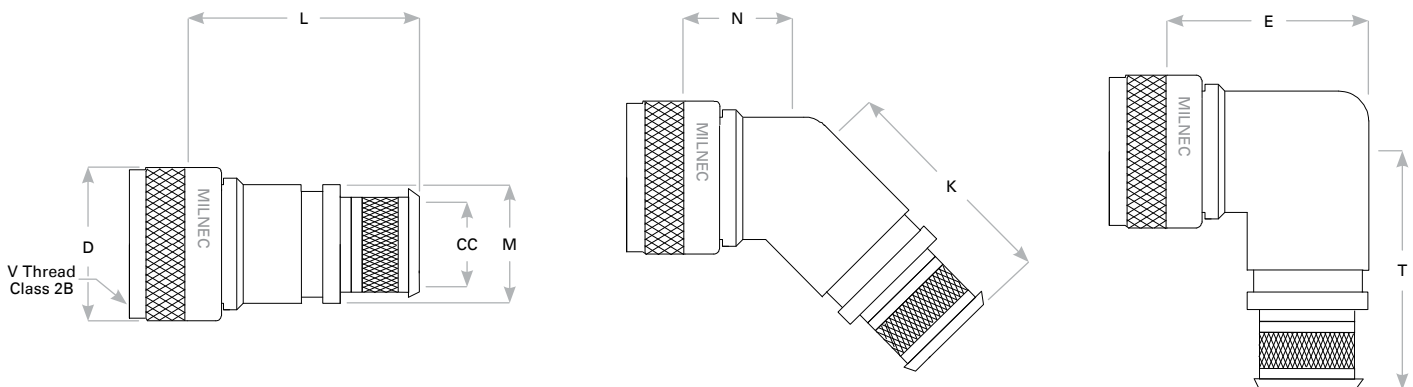
Compatible Brands	Connectors
MIL-DTL-83723 Series III	M83723/71, /72, /73, /74, /75, /76, /77, /78, /82, /83, /84, /85, /86, /87, /91, /92, /95, /96
Aero / Conesys	AE83371, 72, 73, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 87, 91, 92, 95, 96, 97, 98
Amphenol / Matrix	MB30, MB34, MB36, MB38, MT30, MT34, MT36, MT37, MT38
Deutsch / TE	DL60, DL64, DL66, DBA30, DBA34, DBA36

Note: Designed for use with straight shrink boot (EVK2, p. T-44).
See overview (pp. T-4-T-5) for all connector and accessory options.

Backshell Dimensions

Shell Size	CC Cable Clearance	M	D	L	N	K	E	T	V Thread Class 2B
8	.250 (6.4)	.420 (10.7)	.617 (15.7)	1.350 (34.3)	.870 (22.1)	1.160 (29.5)	1.188 (30.2)	1.417 (36.0)	.5000-20 UNF
10	.312 (7.9)	.500 (12.7)	1.010 (25.7)	1.350 (34.3)	.890 (22.6)	1.180 (30.0)	1.281 (32.5)	1.480 (37.6)	.6250-24 UNEF
12	.438 (11.1)	.624 (15.8)	1.130 (28.7)	1.350 (34.3)	.920 (23.4)	1.200 (30.5)	1.406 (35.7)	1.542 (39.2)	.7500-20 UNEF
14	.562 (14.3)	.750 (19.1)	1.260 (32.0)	1.350 (34.3)	.940 (23.9)	1.220 (31.0)	1.531 (38.9)	1.605 (40.8)	.8750-20 UNEF
16	.625 (15.9)	.812 (20.6)	1.380 (35.1)	1.350 (34.3)	.960 (24.4)	1.250 (31.8)	1.656 (42.1)	1.667 (42.3)	1.0000-20 UNEF
18	.750 (19.1)	.937 (23.8)	1.510 (38.4)	1.350 (34.3)	.980 (24.9)	1.260 (32.0)	1.718 (43.6)	1.730 (43.9)	1.0625-18 UNEF
20	.812 (20.6)	1.000 (25.4)	1.630 (41.4)	1.350 (34.3)	1.000 (25.4)	1.290 (32.8)	1.844 (46.8)	1.792 (45.5)	1.1875-18 UNEF
22	.938 (23.8)	1.124 (28.5)	1.760 (44.7)	1.350 (34.3)	1.030 (26.2)	1.310 (33.3)	1.938 (49.2)	1.850 (47.0)	1.3125-18 UNEF
24	1.000 (25.4)	1.187 (30.1)	1.880 (47.8)	1.350 (34.3)	1.050 (26.7)	1.340 (34.0)	2.093 (53.2)	1.917 (48.7)	1.4375-18 UNEF

Dimensions are in inches (mm).



Rev. 2314

Protective Covers (Bayonet)

EV Series • MIL-DTL-83723 Series III Type Connectors

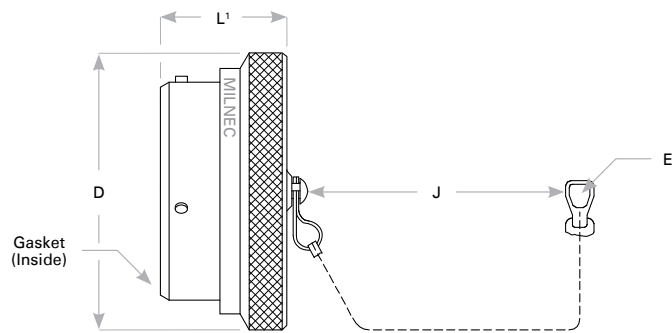


EVBP & EVBR Compatibility

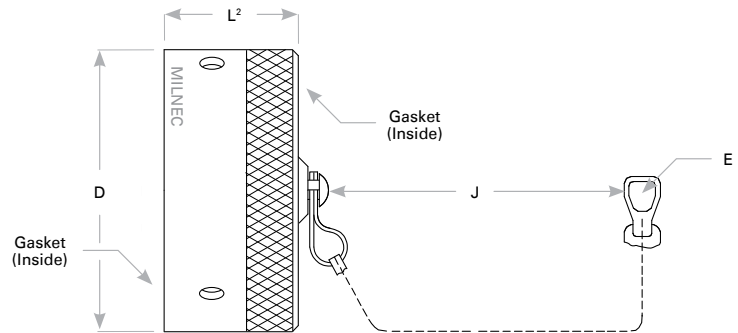
Compatible Brands	Plugs	Receptacles
MIL-DTL-83723 Series III	M83723/75, M83723/76, M83723/77, M83723/78	M83723/71, M83723/72, M83723/73, M83723/74
Aero / Conesys	AE83375, AE83376, AE83377, AE83378,	AE83371, AE83372, AE83373, AE83374
Amphenol / Matrix	MB36, MB38	MB30, MB34
Deutsch / TE	DL66	DL60, DL64

Protective Cover Dimensions

Shell Size	L ¹ Max	L ² Max	D Max	J	E
8	.757 (19.2)	.618 (15.7)	.776 (19.7)	5.000 (127.0)	.125 (3.2)
10	.757 (19.2)	.618 (15.7)	.906 (23.0)	5.000 (127.0)	.125 (3.2)
12	.757 (19.2)	.618 (15.7)	1.078 (27.4)	5.000 (127.0)	.125 (3.2)
14	.757 (19.2)	.618 (15.7)	1.141 (29.0)	5.000 (127.0)	.125 (3.2)
16	.757 (19.2)	.618 (15.7)	1.266 (32.2)	5.000 (127.0)	.125 (3.2)
18	.757 (19.2)	.618 (15.7)	1.375 (34.9)	5.000 (127.0)	.125 (3.2)
20	.757 (19.2)	.618 (15.7)	1.510 (38.4)	5.000 (127.0)	.125 (3.2)
22	.757 (19.2)	.618 (15.7)	1.625 (41.3)	5.000 (127.0)	.125 (3.2)
24	.757 (19.2)	.618 (15.7)	1.760 (44.7)	5.000 (127.0)	.125 (3.2)



Plug Cover



Receptacle Cover

EVBP - 14 B E

- BASIC PART NUMBER**
EVBP Plug cover w/ sash chain
EVBR Receptacle cover w/ sash chain
- SHELL SIZE**
See Protective Cover Dimensions table below
- MATERIAL & FINISH**
B Aluminum, anodize hardcoat
- ATTACHMENT TYPE**
E Eyelet attachment on sash chain
J Jam nut ring attachment on sash chain
(for use with EVB7 jam nut receptacles)

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

Protective Covers (Threaded)

EV Series • MIL-DTL-83723 Series III Type Connectors

EVTP - 14 B E

- 1 **BASIC PART NUMBER**
EVTP Plug cover w/ sash chain
EVTR Receptacle cover w/ sash chain
- 2 **SHELL SIZE**
 See Protective Cover Dimensions table below
- 3 **MATERIAL & FINISH**
B Aluminum, anodize hardcoat
- 4 **ATTACHMENT TYPE**
E Eyelet attachment on sash chain
J Jam nut ring attachment on sash chain
 (for use with EVT7 jam nut receptacles)



Note: See overview (pp.T-4-T-5) for all connector and accessory options.

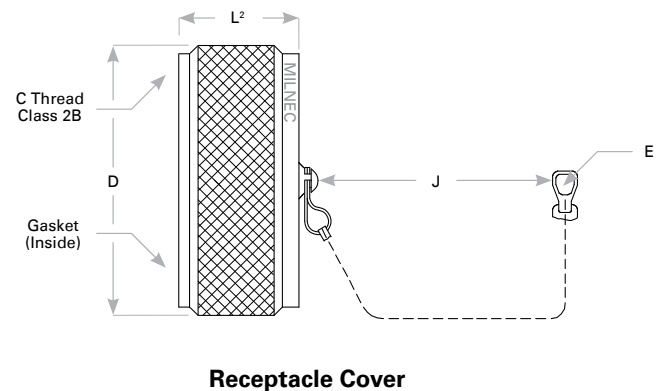
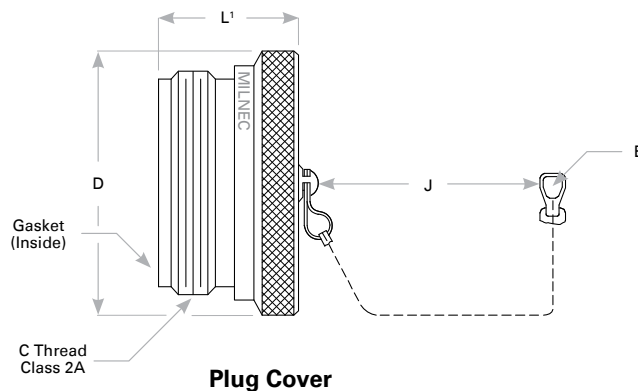
EVTP & EVTR Compatibility

Compatible Brands	Plugs	Receptacles
MIL-DTL-83723 Series III	M83723/86, M83723/87, M83723/91, M83723/92, M83723/95, M83723/96	M83723/82, M83723/83, M83723/84, M83723/85,
Aero / Conesys	AE83386, AE83387, AE83391, AE83392, AE83395, AE83396, AE83397, AE83398	AE83382, AE83383, AE83384, AE83385
Amphenol / Matrix	MT36, MT38	MT30, MT34
Deutsch / TE	DBA36	DBA30, DBA34

Protective Cover Dimensions

Shell Size	C Thread Class 2A/2B	L ¹	L ²	D	J	E
8	.5625-24 UNEF	.757 (19.2)	.618 (15.7)	.776 (19.7)	5.000 (127.0)	.125 (3.2)
10	.6875-24 UNEF	.757 (19.2)	.618 (15.7)	.906 (23.0)	5.000 (127.0)	.125 (3.2)
12	.8750-20 UNEF	.757 (19.2)	.618 (15.7)	1.078 (27.4)	5.000 (127.0)	.125 (3.2)
14	.9375-20 UNEF	.757 (19.2)	.618 (15.7)	1.141 (29.0)	5.000 (127.0)	.125 (3.2)
16	1.0625-18 UNEF	.757 (19.2)	.618 (15.7)	1.266 (32.2)	5.000 (127.0)	.125 (3.2)
18	1.1875-18 UNEF	.757 (19.2)	.618 (15.7)	1.375 (34.9)	5.000 (127.0)	.125 (3.2)
20	1.3125-18 UNEF	.757 (19.2)	.618 (15.7)	1.510 (38.4)	5.000 (127.0)	.125 (3.2)
22	1.4375-18 UNEF	.757 (19.2)	.618 (15.7)	1.625 (41.3)	5.000 (127.0)	.125 (3.2)
24	1.5625-18 UNEF	.757 (19.2)	.618 (15.7)	1.760 (44.7)	5.000 (127.0)	.125 (3.2)

Dimensions are in inches (mm).



Rev. 2314

GET THE WHOLE KIT & CABOODLE WITHOUT THE PAIN IN THE BOODLE

Advanced Connectors

Ruggedized and environmentally protected connectors that feature a wide variety of contacts, materials, and finishes for the ultimate in design flexibility.

EMI/RFI Backshells

For mission-critical applications, EMI/RFI environmental backshells offer total protection from environmental hazards and radiated interference.

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Quickly match the correct cover with your custom connector to protect contacts and ensure a reliable environmental seal when it is not in use.



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Gold plated contacts ensure superior signal and power fidelity and are included with every connector.

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Securely mount and seal your connector with a mounting bracket, sealing gasket, and stainless steel sealing screws.

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The search for matching connector accessories is over! Our simple part builders make it easy to build a complete connector kit with everything you need for mission-critical applications. Kits include protective covers, gaskets, mounting hardware, and a variety of backshells. Get complete protection with Milnec connector kits.

MILNEC
INTERCONNECT SYSTEMS

EVTD - 14 W - 03

- 1 **BASIC PART NUMBER**
EVTD Stowage receptacle (threaded coupling)
EVBD Stowage receptacle (bayonet coupling)
- 2 **SHELL SIZE**
 See Stowage Receptacle Dimensions table below
- 3 **MATERIAL & FINISH**
N Aluminum, electroless nickel
W Aluminum, olive drab cadmium
- 4 **OPTIONAL ACCESSORY KIT** (OMIT FOR NONE)
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See overview (pp.T-4-T-5) for all connector and accessory options.



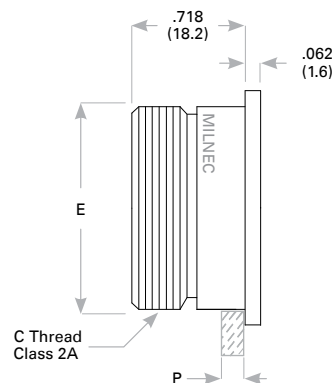
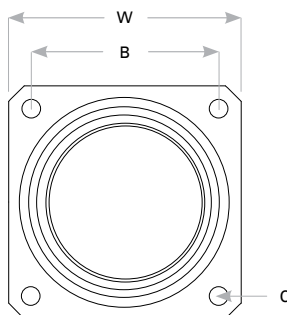
EVTD & EVBD Compatibility

Compatible Brands	Plugs
MIL-DTL-83723 Series III	M83723/75, M83723/76, M83723/77, M83723/78, M83723/86, M83723/87, M83723/91, M83723/92, M83723/95, M83723/96
Aero / Conesys	AE83375, AE83376, AE83377, AE83378, AE83386, AE83387, AE83391, AE83392, AE83395, AE83396, AE83398
Amphenol / Matrix	MB36, MB38, MT36, MT38
Deutsch / TE	DBA36, DL66

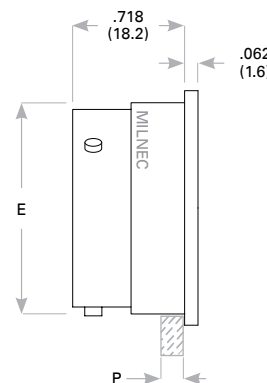
Stowage Receptacle Dimensions

Shell Size	E	W	C Thread Class 2A	C	B	H Bayonet Rear Mount	X	P Max Rear Panel†
8	.561 (14.2)	.812 (20.6)	.5625-24 UNEF	.125 (3.2)	.594 (15.1)	.620 (15.7)	.125 (3.2)	.234 (5.94)
10	.696 (17.7)	.937 (23.8)	.6875-24 UNEF	.125 (3.2)	.719 (18.3)	.748 (19.0)	.125 (3.2)	.234 (5.94)
12	.875 (22.2)	1.031 (26.2)	.8750-20 UNEF	.125 (3.2)	.812 (20.6)	.913 (23.2)	.125 (3.2)	.234 (5.94)
14	.935 (23.7)	1.125 (28.6)	.9375-20 UNEF	.125 (3.2)	.906 (23.0)	.980 (24.9)	.125 (3.2)	.234 (5.94)
16	1.062 (27.0)	1.250 (31.8)	1.0625-18 UNEF	.125 (3.2)	.969 (24.6)	1.107 (28.1)	.125 (3.2)	.234 (5.94)
18	1.187 (30.1)	1.343 (34.1)	1.1875-18 UNEF	.125 (3.2)	1.062 (27.0)	1.209 (30.7)	.125 (3.2)	.234 (5.94)
20	1.312 (33.3)	1.437 (36.5)	1.3125-18 UNEF	.125 (3.2)	1.156 (29.4)	1.337 (34.0)	.125 (3.2)	.234 (5.94)
22	1.437 (36.5)	1.562 (39.7)	1.4375-18 UNEF	.125 (3.2)	1.250 (31.8)	1.452 (36.9)	.125 (3.2)	.234 (5.94)
24	1.562 (39.7)	1.703 (43.3)	1.5625-18 UNEF	.149 (3.8)	1.375 (34.9)	1.577 (40.1)	.154 (3.9)	.234 (5.94)

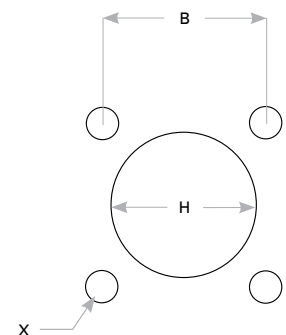
Dimensions are in inches (mm). † Max panel thickness applies only to rear mount applications to ensure proper coupling clearance.



Threaded Coupling



Bayonet Coupling

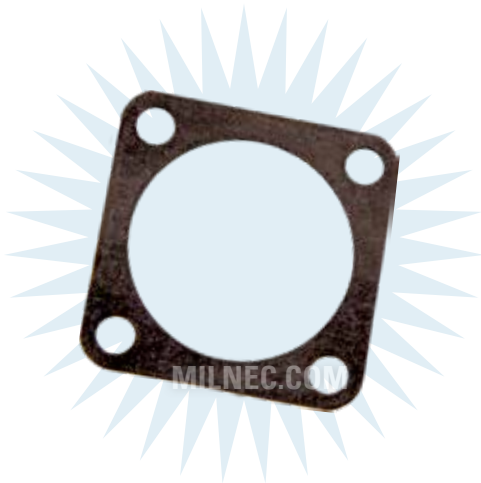


Panel Cutout

Rev. 2314

Mounting Gasket

EV Series • MIL-DTL-83723 Series III Type Connectors



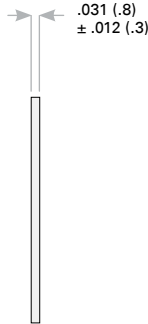
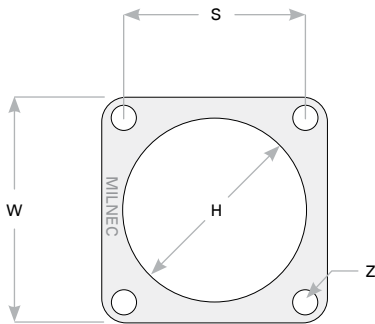
EVGE Compatibility

Compatible Brands	Receptacles
MIL-DTL-83723 Series III	M83723/71, M83723/72, M83723/82, M83723/83
Aero / Conesys	AE83371, AE83372, AE83382, AE83383
Amphenol / Matrix	MB30, MT30
Deutsch / TE	DBA30, DL60

Gasket Dimensions

Shell Size	W	S	Z	H
8	.812 (20.6)	.594 (15.1)	.130 (3.3)	.500 (12.7)
10	.938 (23.8)	.719 (18.3)	.130 (3.3)	.625 (15.9)
12	1.031 (26.2)	.813 (20.7)	.130 (3.3)	.750 (19.1)
14	1.125 (28.6)	.906 (23.0)	.130 (3.3)	.875 (22.2)
16	1.219 (31.0)	.969 (24.6)	.130 (3.3)	1.000 (25.4)
18	1.312 (33.3)	1.063 (27.0)	.130 (3.3)	1.125 (28.6)
20	1.438 (36.5)	1.156 (29.4)	.130 (3.3)	1.250 (31.8)
22	1.563 (39.7)	1.250 (31.8)	.130 (3.3)	1.375 (34.9)
24	1.688 (42.9)	1.375 (34.9)	.130 (3.3)	1.500 (38.1)

Dimensions are in inches (mm).



EVGE - 14

1 2

1 BASIC PART NUMBER

- EVGE** Neoprene environmental (weather resistant)
Temp. range -40°F to +230°F (-40°C to +110°C)
- EVGL** Fluorosilicone (jet fuel & oil resistant)
Temp. range -70°F to +392°F (-56°C to +200°C)
Per MIL-DTL-25988, Class 1, Grade 6
- EVGD** Conductive EMI-RFI fluorosilicone, Al-Ag filled
Temp. range -70°F to +392°F (-56°C to +200°C)
Shielding effectiveness at 90 dB @ 10 GHz
Per MIL-DTL-83528, Type D

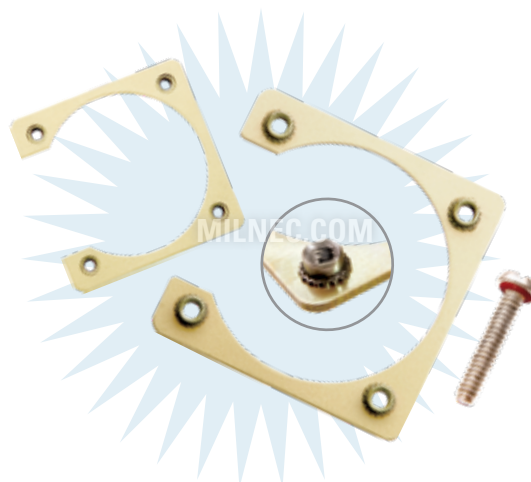
2 SHELL SIZE

See Gasket Dimensions table below

Note: See overview (pp.T-4-T-5) for all connector and accessory options.

EVMB - 14 - A

- 1 **BASIC PART NUMBER**
EVMB Mounting bracket, aluminum alloy
with SST locking nuts
- 2 **SHELL SIZE**
See Bracket Dimensions table below
- 3 **OPTIONAL FASTENER KIT** (OMIT FOR NONE)
 - A** Self-sealing SST fillister head screws (4x)
 - B** A kit + environmental gasket
 - D** A kit + fluorosilicone EMI/RFI gasket



Note: See overview (pp.T-4-T-5) for all connector and accessory options.

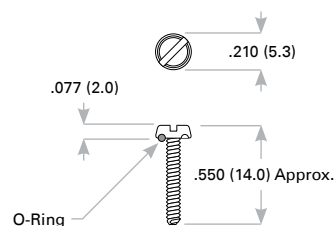
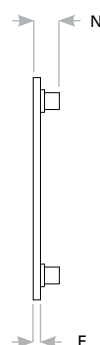
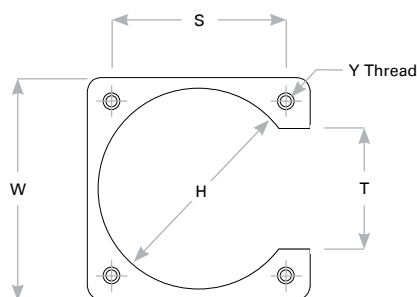
EVMB Compatibility

Compatible Brands	Receptacles
MIL-DTL-83723 Series III	M83723/71, M83723/72, M83723/82, M83723/83
Aero / Conesys	AE83371, AE83372, AE83382, AE83383
Amphenol / Matrix	MB30, MT30
Deutsch / TE	DBA30, DL60

Bracket Dimensions

Shell Size	W	S	T	H	N	F	Screw Size	Y Thread
8	.880 (22.4)	.594 (15.1)	.308 (7.8)	.570 (14.5)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
10	1.019 (25.9)	.719 (18.3)	.433 (11.0)	.720 (18.3)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
12	1.104 (28.0)	.812 (20.6)	.530 (13.5)	.855 (21.7)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
14	1.198 (30.4)	.906 (23.0)	.624 (15.8)	.984 (25.0)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
16	1.280 (32.5)	.969 (24.6)	.687 (17.4)	1.094 (27.8)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
18	1.406 (35.7)	1.062 (27.0)	.780 (19.8)	1.220 (31.0)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
20	1.535 (39.0)	1.156 (29.4)	.874 (22.2)	1.345 (34.2)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
22	1.665 (42.3)	1.250 (31.8)	.968 (24.6)	1.478 (37.5)	.136 (3.5)	.040 (1.0)	4	4-40 UNJC-3B
24	1.738 (44.1)	1.375 (34.9)	.907 (23.0)	1.483 (37.7)	.153 (3.9)	.040 (1.0)	6	6-32 UNJC-3B

Dimensions are in inches (mm).



Hand Crimpers & Positioners

EV Series • MIL-DTL-83723 Series III Type Connectors



Precision Hand Crimpers

A crimp tool provides reliable crimp termination of contacts for mission-critical applications. A hand crimper is suitable for contacts from size #12 to #22D. For production environments, pneumatic crimpers are also available.

Our tools feature an 8-impession crimp, which ensures maximum tensile strength between wire and contact. Their cycle controlled ratchets are consistent and accurate and do not permit half crimps, ensuring complete and precise crimping every time.

The tool frames have a built-in 8-step selector knob for easy adjustment of crimp depth to accommodate the size of wire being used. Data plates on positioners provide setting information specific to the size of wires and contacts being used.

There are a variety of crimp tools and positioners available to fit the various sized contacts within each connector series. We have paired our most popular models with their required positioner(s) to ensure complete compatibility.

Hand Crimper & Positioner Kits

Part Number	Kit Includes the Following Items	Contacts Sizes	Milnec Series Compatibility	Mil-Spec Series Compatibility
TK101-KIT	TK101A crimp tool with TP104 turret positioner	#20, #16, #12	DL Series, DS, Series, TX Series	MIL-DTL-38999 Series I, II, III
TK101B-KIT	TK101A crimp tool with TP102 turret positioner	#20, #16, #12	BM Series, EV Series, TM Series, HR Series	MIL-DTL-26482 Series I, II MIL-DTL-83723 Series III MIL-DTL-5015 Crimp*
TK201-KIT	TK201 crimp tool with the following positioners: TP209 (for pins), TP207 (for sockets)	#22, #22M, #22D	DL Series, TX Series	MIL-DTL-38999 Series I MIL-DTL-38999 Series III
TK201B-KIT	TK201 crimp tool with the following positioners: TP209 (for pins), TP206 (for sockets)	#22, #22M, #22D	DS Series	MIL-DTL-38999 Series II

* Contacts size #8 and larger require pneumatic crimper. When this is not an option, wires may be soldered directly into contact wire well. For mission critical applications, crimping is preferred termination method.



H900 Soldering Station Kit

Our soldering station kit provides a complete solution for professionally terminating solder contacts to stranded or solid core wire.

Features & Benefits

- Temperature range 392° to 896°F (200° to 480°C)
- Adjustable temperature control dial with lock/set screw
- Idle temperature stability of $\pm 1.8^{\circ}\text{F}$ (1.0°C)
- Ceramic heating element and sensor ensure rapid heat-up temperature (30 seconds) and fast thermal recovery
- Celsius or Fahrenheit temperature setting
- Slender iron handles are insulated and ergonomically designed for ease and comfort
- ESD-safe design suitable for controlled environments
- 5 interchangeable tips suitable for connector solder contacts ranging from #0 to #22D

Note: The above lists standard options readily available in stock. Please consult an authorized distributor for full range of solder stations, re-work stations, specialty tips, and accessories.

Soldering Station Kit

Part Number	Kit Includes The Following Items
H900	120V / 60W soldering station, iron holder, cleaning sponge, 5 interchangeable tips, rosin-core lead solder, instructions

Replacement Tips

Part Number	For Contact Size	Description	Image
H900-6D	#16, #20, #22D	Chisel (1.6mm Tip)	
H900-B	#16, #20	Conical (0.5mm Tip)	
H900-2C	#16	45° Beveled (2mm Tip)	
H900-4C	#8, #12	45° Beveled (4mm Tip)	
H900-S3	#0, #4	Chisel (5.2mm Tip)	

Heat Gun

EV Series • MIL-DTL-83723 Series III Type Connectors



TH1910E Professional Heat Gun

Our professional heat gun kit provides a complete solution for installing shrink boots. Interchangeable nozzles help to concentrate heat flow or to direct hot air evenly around a target while protecting sensitive equipment nearby.

Features & Benefits

- Temperature range 120° to 1,100°F (49° to 593°C)
- 3 interchangeable nozzle attachments
- Adjustable temperature control dial
- 3 stage switch to control airflow from 3.6 to 17.6 ft³/min
- Ergonomic design for ease and comfort

Note: The above lists standard options readily available in stock. Please consult an authorized distributor for full range of heat guns and specialized nozzle accessories.

Heat Gun Kit

Part Number	Kit Includes The Following Items
TH1910E	120V / 1,500W variable temperature heat gun, ring holder, and 3 interchangeable nozzles

Consult with authorized distributor for 220V, 230V, & 240V models suitable for your region.

Nozzle Attachments

Part Number	Description
TH101	10mm reduction nozzle
TH102	39mm reflector nozzle
TH103	13mm reflector nozzle



Rev. 2314

TB058 Banding Tool

The TB058 banding tool is the only tool needed to professionally install shielding termination bands to all Milnec EMI/RFI banding adapters. This simple hand tool positions, tightens, and trims the shield termination band with just a few easy steps for a foolproof, high-precision installation.

Features & Benefits

- One tool for all adapter sizes
- Ergonomic & lightweight: 1.18 lbs (0.5 kg)
- Tension range: 100 to 180 lbs (45.3 to 81.6 kg)

Banding Tool

Part Number	Kit Includes The Following Items
TB058	Banding tool for TB250 shield termination bands

Note: Please consult an authorized distributor for full range of pneumatic banding tools for high-volume production environments.



TB250 Shield Termination Band

The TB250 band will professionally attach shielding to Milnec EMI/RFI banding boot adapters of all sizes. The TB250 band can be quickly and reliably installed with the specially designed TB058 banding tool. Bands come pre-coiled for faster installation.

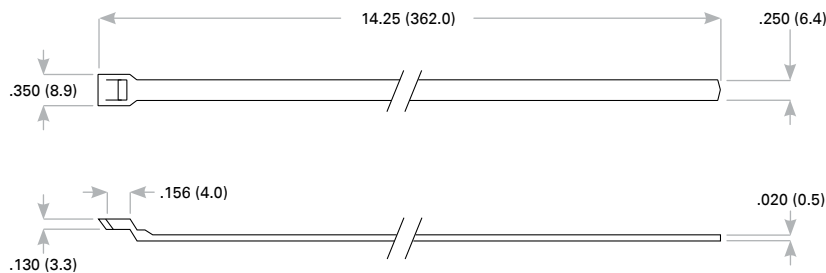
Features & Benefits

- Double-wrapped bands will accommodate diameters up to approximately 0.88 inches (22.4 mm)
- 300 series stainless steel single-piece construction



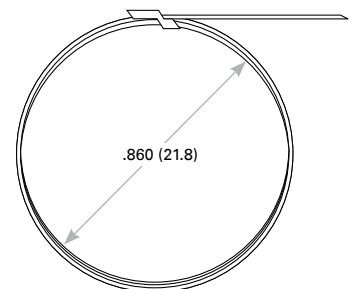
Shield Termination Band

Part Number	Kit Includes The Following Items
TB250	Single stainless steel shield termination band



Dimensions are in inches (mm).

Rev. 2314



Pre-coiled Band

www.milnec.com

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