



MILITARY & DEFENSE EDITION

QS Series
MIL-DTL-22992 QWLD
MILITARY STYLE CONNECTORS

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

Milnec Interconnect Systems

High-Performance Cylindrical Connectors

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

Milnec Interconnect Systems

3947 West Lincoln Highway #192
Downingtown, PA 19335

1-855-4MILNEC Toll Free
(1-855-464-5632)

technical-support@milnec.com

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



Rev. 2150

MIL-DTL-22992 QWLD Compliant Connectors

The QS Series of connectors is built to MIL-DTL-22992 QWLD standards and will meet or exceed all of the specifications for performance and durability. QS Series connectors are made for power and control applications in extreme environments where standard connectors cannot survive. They are moisture and explosion proof with resilient inserts for protection against shock and vibration. Double stub threads offer quick coupling and easy cleaning. A large selection of mil-spec style and industrial crimp and solder contact arrangements makes QS Series connectors the ultimate interconnect solution for the harshest environments.



Unmatched Connector Durability
QS connectors are built tough for performance in extreme environments that cause failure in normal connectors.

Complete IP67 Rated Backshell & Accessory Kits

Milnec offers a range of backshells and accessories for QS Series connectors that can be easily configured as complete kits that include everything you need for a reliable, IP67 rated environmental interconnect solution. Simply select the desired kit option on the part builder and your connector will come with all the matching sealing accessories you need for complete protection, right out of the box!

- IP67 rated environmental backshell kits
- Matched sealing accessory kits
- Mounting gaskets & brackets



Table of Contents

About Us	W-1
Features & Benefits	W-2
Component Overview	W-3
Series Specifications	W-5
Contact Specifications	W-7
Part Builder	W-9
Insert Arrangements	W-10
Alternate Insert Rotations	W-12
Insert Arrangement Drawings	W-13
(QS06) Plug	W-19
(QS01) Cable Mount Receptacle	W-20
(QS00) Wall Mount Receptacle	W-21
(QS02) Box Mount Receptacle	W-22
(QS07) Jam Nut Wall Mount Receptacle	W-23
(QS08) Jam Nut Box Mount Receptacle	W-24
(QSB2) Strain Relief Backshell	W-25
(QSAE) Adapter	W-26
(QSE2) Environmental Backshell	W-27
(QSCP) Protective Cover	W-31
(QSCD) Stowage Receptacle	W-32
(QSGE) Mounting Gasket	W-33
(QSMB) Mounting Bracket & Screws	W-34
Hand Crimpers & Positioners	W-35
Soldering Station	W-36

Backshell Protection for Wires

Even a simple cable clamp is a critical component in an interconnect solution by offering strain relief to connector wires.



Power Connectors for Heavy-Duty Applications

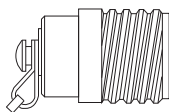
The QS Series of connectors is designed to deliver high power for applications in harsh environments. Crimp and solder contacts are both available and range from size #0-#16, while carrying up to 150 amps. Contact arrangements are available with up to 52 contacts in one connector. A range of connector styles and backshells make the QS Series the only choice for high-power connectors in the most demanding environments.

- Crimp & solder contacts available
- Contacts sizes from #0-#16
- Capable of carrying up to 150 amps

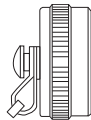
Component Overview

QS Series • MIL-DTL-22992 QWLD Type Connectors

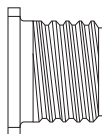
Covers



Plug Cover
p. W-31

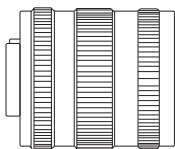


Receptacle Cover
p. W-31



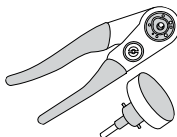
Stowage Receptacle
p. W-32

Plug

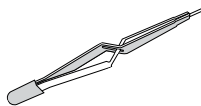


Standard Plug
p. W-19

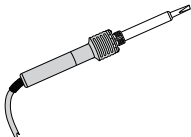
Tools



Crimper & Positioner
p. W-35

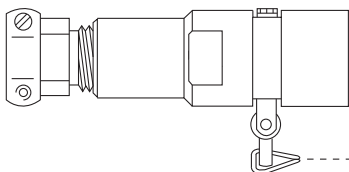


Insertion/Extraction
p. W-7

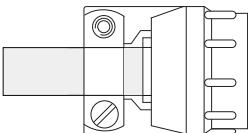


Solder Iron
p. W-36

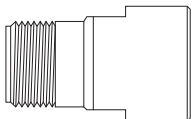
Backshells



Environmental
p. W-27

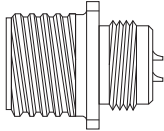


Strain Relief
p. W-25

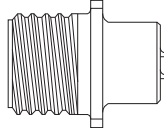


Adapter
p. W-26

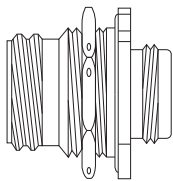
Receptacles



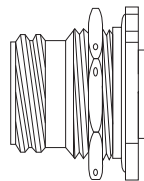
Wall Mount
p. W-21



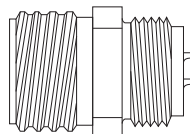
Box Mount
p. W-22



Jam Nut Wall Mount
p. W-23

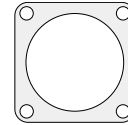


Jam Nut Box Mount
p. W-24

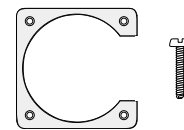


Cable Mount
p. W-20

Mounting

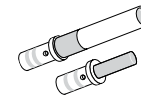


Gasket
p. W-33



Bracket & Screws
p. W-34

Contacts



Crimp Contacts (QC Only)
p. W-7

**MILNEC SHIPS CONNECTOR
SOLUTIONS WORLDWIDE**



World Class Service, Worldwide

We know your project can't wait, so we provide tailor-made flexibility with off-the-shelf lead times. We employ the latest assembly and quality-control processes to build and test every connector we ship.

Series Specifications

QS Series • MIL-DTL-22992 QWLD Type Connectors

Performance Specifications

Built to meet or exceed MIL-DTL-22992 specifications
Guaranteed fully compatible and interchangeable with respect to physical and performance characteristics with all existing MIL-DTL-22992 QWLD military and commercial derivatives.

Environmental Characteristics

Temperature Range

-67° to +257°F (-55° to +125°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): 35,000 hours

257°F (125°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 4 hrs

Air Leakage Rate

Environmental connector air leakage rate shall not exceed 1 inch³/hr (4.55 x10⁻³ cm³/sec) at 30 psi (2.11 kg/cm²) pressure differential

Salt Spray Rating

500 hr salt spray rating

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

Threaded, double-start stub threads, 2¼ turns to couple with knurled coupling ring

Coupling Torque

Engagement & Disengagement Force (max / min)

Shell Size 12: 2.07 ft-lb_f (2.8 N-m) / .17 ft-lb_f (.23 N-m)

Shell Size 14: 4.35 ft-lb_f (5.9 N-m) / .26 ft-lb_f (.35 N-m)

Shell Size 16: 5.16 ft-lb_f (7.0 N-m) / .34 ft-lb_f (.46 N-m)

Shell Size 18: 5.90 ft-lb_f (8.0 N-m) / .43 ft-lb_f (.58 N-m)

Shell Size 20: 6.64 ft-lb_f (9.0 N-m) / .52 ft-lb_f (.70 N-m)

Shell Size 22: 7.82 ft-lb_f (10.6 N-m) / .59 ft-lb_f (.80 N-m)

Shell Size 24: 9.51 ft-lb_f (12.9 N-m) / .59 ft-lb_f (.80 N-m)

Shell Size 28: 12.32 ft-lb_f (16.7 N-m) / .68 ft-lb_f (.92 N-m)

Shell Size 32: 13.35 ft-lb_f (18.1 N-m) / .75 ft-lb_f (1.02 N-m)

Shell Size 36: 17.63 ft-lb_f (23.9 N-m) / .77 ft-lb_f (1.05 N-m)

Polarization

Single master key, and 4 minor keys

Insert Arrangements

112 inserts available

Insert Rotations

Normal polarization (N), plus four alternate insert rotational polarizations (W, X, Y, Z). Refer to the Alternate Insert Rotations chart on p. W-12 for availability.

Endurance Characteristics

Coupling Cycles

250 coupling cycles (minimum)

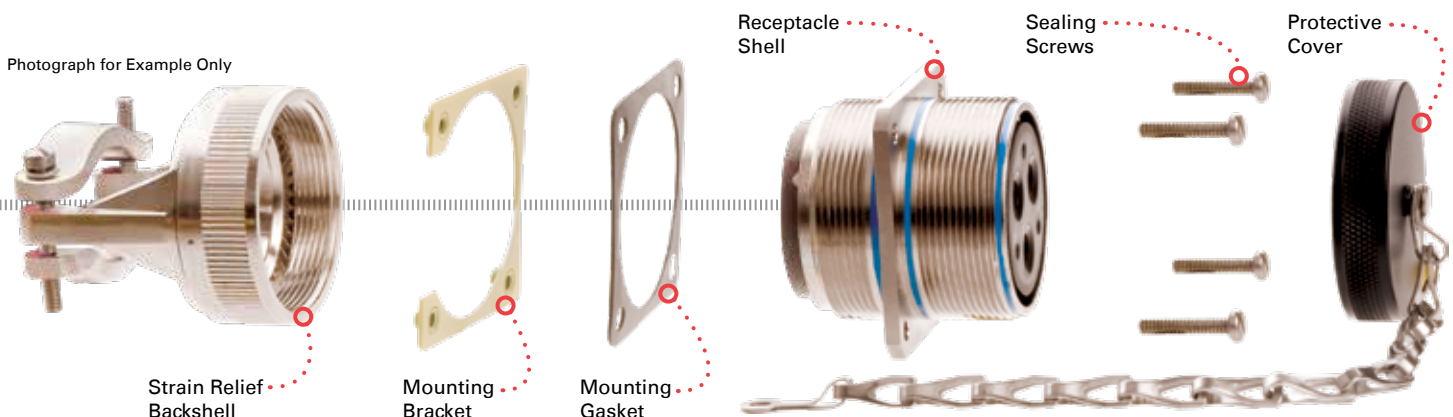
Shock

50g's, 11ms duration, three major axes,
10 microseconds maximum discontinuity

Vibration

Random vibration at 10 to 2,000Hz (15g's),
10 microseconds maximum discontinuity

Photograph for Example Only



Rev. 2150

Material Characteristics

Shell

High-grade aluminum alloy

Shell Plating

C Finish

Electrically conductive cadmium plate finish with an olive drab (light to dark in color) chromate after-treat for corrosion resistance (500 hr salt spray rating). Thickness of the coating shall be approximately 0.0001 in (.00254 mm).

N Finish

Non-conductive anodized coating finish (gray to black in color) for corrosion resistance (500 hr salt spray rating). Thickness of the coating shall be approximately 0.001 in (.0254 mm).

Shell-to-Shell Conductivity for C Finish

Maximum shell-to-shell conductivity potential drop shall not exceed 200 millivolts before conditioning, and 400 millivolts after conditioning, across the assembly

Insert Assembly

Resilient neoprene dielectric, non-removable

Covers, Coupling Rings, Cable Sealing Adapters

High-grade aluminum alloy

Protective Cover Chain

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

Cable Gland (QSE2 Backshell)

Neoprene or silicone

O-Ring Seal

Neoprene or silicone

Mounting Gasket

Neoprene or silicone

Contact Characteristics

Contact Design

Solder Contacts

Permanently bonded to insert

Pre-tinned solder cups and solder wells standard

Crimp Contacts

Removable, rear-release crimp contacts

Contact Sizes

#16, #12, #8, #4, #0

Contacts

Copper alloy

Contact Plating

Silver alloy plate, .0002 in (.0051 mm) minimum

Max Number of Contacts

52

Max Contact Resistance

6 milliohm maximum resistance

Max Voltage Drop

<50 millivolt maximum drop for grounding contacts

Contact Retention

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

Electrical Characteristics

Current Rating

150 amps (rated current) at 68°F (20°C)

Max Operating Voltage

3,000 VAC (RMS) at sea level

Insulation Resistance

>5,000 megohms at 77°F (25°C)

Wire Size

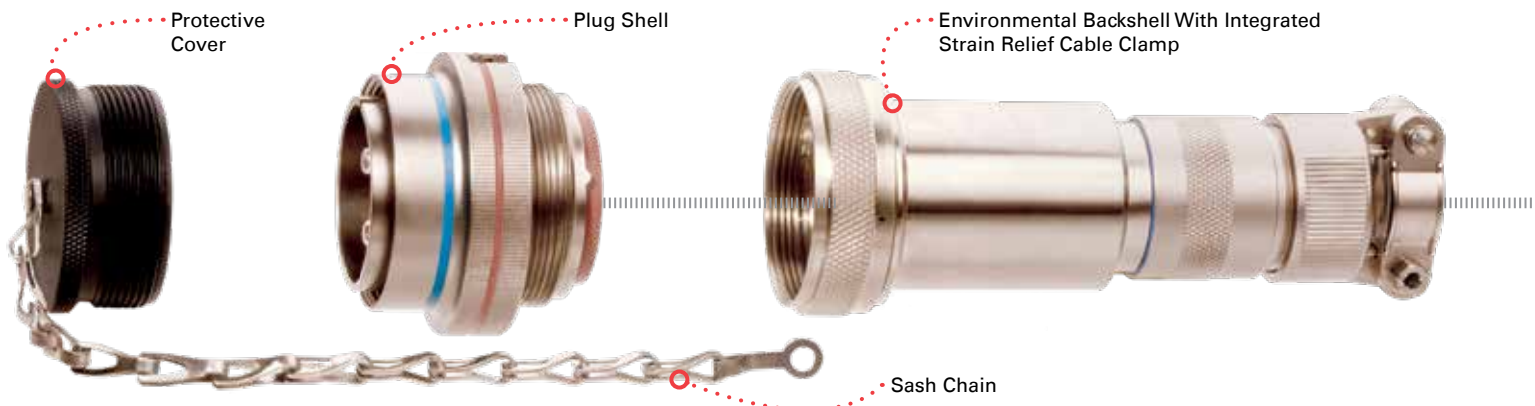
16 to 0 AWG

Wire Sealing Range

Designed for individual wire sealing

Sealing is only guaranteed if wires meet

MIL-W-5086 or within permitted ranges



Photograph for Example Only

Contact Specifications

QS Series • MIL-DTL-22992 QWLD Type Connectors

Crimp Contacts & Tooling*

Pin/Socket	Part Number	Mating End Size	Wire Barrel Size	Allowable Wire Size	Test Current Amps	Required Wire Adapter Sleeve	Crimping Tool	Positioner	Die	Insertion Tool	Extraction Tool
Pin	QSPP16	16 Long	16	16	13	-	TK101A	TP291	-	TN345	TX250 Kit
Socket	QSSS16			18	10	-					
				20	7.5	-					
				22 [†]	5	QSBS-966					
Pin	QSPP12	12	12	12	23	-	TU2301			TN082	
Socket	QSSS12			14	17	-					
Pin	QSPP08	8	8	8	46	-		TL2309	TD2302	TN220	
Socket	QSSS08			10 [†]	33	QSBS-961					
Pin	QSPP04	4	4	4	80	-		TP2312	TD2304	TN654 [†]	
Socket	QSSS04			6 [†]	60	QSBS-962					
Pin	QSPP00	0	0	0	150	-		TL2313	TD2305	TN655 [†]	
Socket	QSSS00			2 [†]	100	QSBS-967					

*Tooling not applicable for solder contacts. [†]Tool used with Arbor press 11-7364. [‡]When using required wire adapter sleeve.

Contact Arrangement Service Rating & Altitude Voltage Derating

MS Service Rating	Operating Voltage at Sea Level		Nominal Distance in Inches (mm)		Mechanical Spacing Nom.	Standard Sea Level Conditions		Pressure Altitude 50,000 Ft		Pressure Altitude 70,000 Ft	
	DC	AC (RMS)	Airspace	Creepage		Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)	Min Flashover Voltage AC (RMS)	Test Voltage AC (RMS)
Inst.	250	200	.0313 (.79)	.0625 (1.59)	-	1,400	1,000	550	400	325	260
A	700	500	.0625 (1.59)	.1250 (3.18)	.0625 (1.59)	2,800	2,000	800	600	450	360
D	1,250	900	.1250 (3.18)	.1875 (4.76)	.1250 (3.18)	3,600	2,800	900	675	500	400
E	1,750	1,250	.1875 (4.76)	.2500 (6.35)	.1875 (4.76)	4,500	3,500	1,000	750	550	440
B	2,450	1,750	.2500 (6.35)	.3125 (7.94)	.2500 (6.35)	5,700	4,500	1,100	825	600	480
C	4,200	3,000	.3125 (7.94)	1.0000 (25.4)	.3125 (7.94)	8,500	7,000	1,300	975	700	560

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. Dimensions are in inches (mm) unless otherwise noted.

Current Rating By Contact Size & Wire Size

Wire Size	Contact Size				
	16	12	8	4	0
22	5	-	-	-	-
20	7.5	-	-	-	-
18	10	-	-	-	-
16	13	-	-	-	-
12	-	17	-	-	-
10	-	23	33	-	-
8	-	-	46	-	-
6	-	-	-	60	-
4	-	-	-	80	-
2	-	-	-	-	100
1	-	-	-	-	125
0	-	-	-	-	150

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 Values For Main Joint Sealing

Thread Size	Torque Inch Pounds (Newton Meters)		Torque Foot Pounds (Newton Meters)	
	Min	Max	Min	Max
0.875	140 (15.8)	150 (17.0)	11 (1.2)	12 (1.4)
1.000	160 (18.1)	170 (19.2)	13 (1.5)	14 (1.6)
1.125	210 (23.7)	230 (26.0)	18 (2.0)	19 (2.2)
1.250	260 (29.4)	280 (31.6)	21 (2.4)	23 (2.6)
1.375	300 (33.9)	325 (36.7)	24 (2.7)	25 (2.8)
1.500	325 (36.7)	350 (39.5)	28 (3.2)	30 (3.4)
1.750	375 (42.4)	400 (45.2)	30 (3.4)	32 (3.6)
2.000	425 (48.0)	450 (50.8)	36 (4.1)	38 (4.3)
2.250	500 (56.5)	525 (59.3)	42 (4.8)	44 (5.0)
2.500	575 (65.0)	600 (68.0)	48 (5.4)	50 (5.7)
2.750	650 (73.4)	700 (79.1)	55 (6.2)	60 (6.9)
3.000	750 (84.7)	800 (90.4)	60 (6.9)	65 (7.3)

Rev. 2150

BRING OUT THE BIG GUNS



Power & Signal Connectors for Big Jobs

When you need signal and power in the same connector, Milnec QS Series crimp connectors are the perfect choice. QS connectors can handle up to 150A and are built from heavy duty materials to ensure reliability in the harshest environments. When you are faced with a tough interconnect application, be sure to choose Milnec.



How to Build Your QS 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 QS Series connector that designates, 1) QS Series wall mount receptacle, 2) conductive olive drab cadmium finish over aluminum, 3) 22-23 insert arrangement, 4) socket contacts, 5) normal rotation, 6) environmental backshell (dash number indicates backshell size), and 7) integrated accessory kit. ■

QS00 C 22-23 S N - E2(034) - 03

1 2 3 4 5 6 7

1 Series Shell Style

Solder Connectors

- QS06** Plug, p. W-19
- QS00** Wall mount receptacle, p. W-21
- QS01** Cable mount receptacle, p. W-20
- QS02** Box mount receptacle, p. W-22
- QS07** Jam nut wall mount receptacle, p. W-23
- QS08** Jam nut box mount receptacle, p. W-24

Crimp Connectors

- QC06** Plug, p. W-19
- QC00** Wall mount receptacle, p. W-21
- QC01** Cable mount receptacle, p. W-20
- QC02** Box mount receptacle, p. W-22
- QC07** Jam nut wall mount receptacle, p. W-23
- QC08** Jam nut box mount receptacle, p. W-24

2 Material & Finish

Aluminum

- C** Conductive for AC
Olive drab cadmium
500 hr. dynamic salt spray rating
- N** Non-conductive for DC
Anodized finish
500 hr. dynamic salt spray rating

3 Shell Size & Insert Arrangement

See Insert Arrangement Selection table, p. W-10

4 Contact Style

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

5 Insert Rotation

Normal Rotation

N Normal

Alternate Rotations

W, X, Y, Z Alternate rotations

See Alternate Insert Rotations table on p. W-12
(Not all rotations are available for every arrangement)

6 Optional Backshell Kit (Omit for None)

Strain Relief Backshell

B2 Strain relief & adapter, p. W-25

Environmental Backshell

E2 () Straight environmental backshell, p. W-27

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

7 Optional Accessory Kit (Omit for None)

01 For Plugs:

Protective cover, p. W-31

02 For Receptacles:

Protective cover, p. W-31 +
Mounting gasket, p. W-33

03 For Receptacles:

Protective cover, p. W-31 +
Mounting gasket, p. W-33 +
Mounting bracket, p. W-34
with (4x) sealing screws

8 Modification (Omit for Standard Environmental)

-350 For Pressurized Applications Only

Use where circuit integrity is
protected by a pressure differential
(Standard environmental connectors
do not require a modification code)

Selecting Your Insert Arrangement

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

For each specific insert arrangement, the first number represents the connector shell size. The second number represents the contact configuration. However, the second number does not always equal the total number of contacts. ■

Insert Arrangement Selection

Insert Arrangement	Total Contacts	Contact Size					Service Rating
		#16	#12	#8	#4	#0	
12-5	1		1				A
14-53	6	6					Inst.
16-7	3	2		1			A
16-9	4	2	2				A
16-10	3		3				A
16-11	2		2				A
16-12	1				1		A
18-1	10	10					A/Inst.
18-3	2		2				D
18-4	4	4					D
18-5	3	1	2				D
18-8	8	7	1				A
18-9	7	5	2				Inst.
18-10	4		4				A
18-11	5		5				A
18-12	6	6					A
18-13	4		3	1			A
18-16	1		1				C
18-19	10	10					A
18-22	3	3					D
20-2	1					1	D
20-3	3		3				D
20-4	4		4				D
20-7	8	8					D/A
20-8	6	4		2			Inst.
20-11	13	13					Inst.
20-14	5		3	2			A
20-15	7		7				A
20-16	9	7	2				A
20-17	6	1	5				A
20-18	9	6	3				A
20-19	3			3			A
20-22	6	3		3			A

Insert Arrangement	Total Contacts	Contact Size					Service Rating
		#16	#12	#8	#4	#0	
20-23	2		2				A
20-24	4	2	2				A
20-27	14	14					A
20-29	17	17					A
20-33	11	11					A
22-1	2			2			D
22-2	3			3			D
22-5	6	4	2				D
22-6	3	1		2			D
22-7	1					1	E
22-8	2		2				E
22-9	3		3				E
22-11	2	2					B
22-12	5	3		2			D
22-13	5	1	4				D/A
22-14	19	19					A
22-15	6	1	5				E/A
22-18	8	8					D/A
22-19	14	14					A
22-20	9	9					A
22-21	3	2				1	A
22-22	4			4			A
22-23	8		8				D/A
22-28	7		7				A
22-33	7	7					D/A
24-2	7		7				D
24-5	16	16					A
24-6	8		8				D/A
24-7	16	14	2				A
24-9	2				2		A
24-10	7			7			A
24-11	9		6	3			A
24-12	5		3		2		A

(Continued on next page)

Note: Above table lists some of the most popular contact configurations—more contact arrangement options are available. Consult your distributor for details.

Insert Arrangements

QS Series • MIL-DTL-22992 QWLD Type Connectors

Insert Arrangement Selection (Continued from previous page)

Insert Arrangement	Total Contacts	Contact Size					Service Rating
		#16	#12	#8	#4	#0	
24-20	11	9	2				D
24-21	10	9		1			D
24-22	4			4			D
24-27	7	7					E
24-28	24	24					Inst.
28-1	9		6	3			D/A
28-2	14	12	2				D
28-3	3			3			E
28-5	5	2	1		2		D
28-6	3				3		D
28-7	2				2		D
28-8	12	10	2				E/D/A
28-9	12	6	6				D
28-10	7		3	2	2		D/A
28-11	22	18	4				A
28-12	26	26					A
28-15	35	35					A
28-16	20	20					A
28-17	15	15					B/D/A
28-18	12	12					C/D/A/Inst
28-19	10	6	4				B/D/A
28-20	14	4	10				A
28-21	37	37					A

Insert Arrangement	Total Contacts	Contact Size					Service Rating
		#16	#12	#8	#4	#0	
28-22	6	3			3		D
32-1	5		3			2	E/D
32-2	5	2			3		E
32-3	9	4	2		2	1	D
32-5	2					2	D
32-6	23	16	2	3	2		A
32-7	35	28	7				Inst./A
32-8	30	24	6				A
32-9	14	12			2		D
32-13	23	18	5				D
32-15	8		6			2	D
32-17	4				4		D
36-3	6		3			3	D
36-4	3					3	D/A
36-5	4					4	A
36-6	6				4	2	A
36-7	47	40	7				A
36-8	47	46	1				A
36-9	31	14	14	2	1		A
36-10	48	48					A
36-14	16	6	5	5			D
36-15	35	35					D/A
36-52	52	52					A

HIGH-FREQUENCY CONTACTS FOR HIGH-SPEED TRANSMISSION

Wall mount with eight concentric twinax contacts for high-speed data transmission in a rugged connector.



Contacts for Advanced Applications

Milnec's high-frequency contacts are the ideal choice for advanced applications that require superior electrical performance along with shielding to protect from outside electrical interference.

- High-speed RF contacts
- Fiber optic contacts
- PC tail contacts

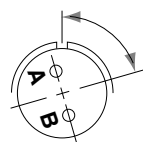


Rev. 2150

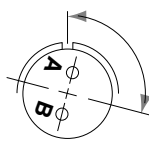
Protect Equipment With an Alternate Insert Rotation

Alternate insert rotations are available in order to prevent cross-mating of connectors, which could lead to system damage or user harm. This is particularly helpful when working with high-density connector panels that consist of multiple similar or identical connectors.

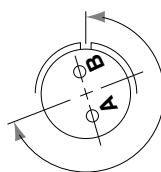
Rotations are designated at the time of ordering using rotation labels N (normal), W, X, Y, and Z. Some insert patterns have limited or no alternate rotation options. Refer to the table below for possible rotations in specific patterns. ■



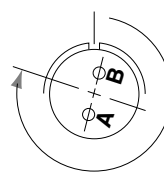
Position W



Position X



Position Y



Position Z

Looking into front face of pin insert or rear of socket insert.

Alternate Insert Rotations

Insert Arrangement	Degrees			
	W	X	Y	Z
12-5				
14-53				
16-7	80	110	250	280
16-9	35	110	250	325
16-10	90	180	270	
16-11	35	110	250	325
16-12				
18-1	70	145	215	290
18-3	35	110	250	325
18-4	35	110	250	325
18-5	80	110	250	280
18-8	70			290
18-9	80	110	250	280
18-10		120	240	
18-11		170	265	
18-12	80			280
18-13	80	110	250	280
18-16				
18-19		120	240	
18-22	70	145	215	290
20-2				
20-3	70	145	215	290
20-4	45	110	250	
20-7	80	110	250	280
20-8	80	110	250	280
20-11				
20-14	80	110	250	280
20-15	80			280

Insert Arrangement	Degrees			
	W	X	Y	Z
20-16	80	110	250	280
20-17	90	180	270	
20-18	35	110	250	325
20-19	90	180	270	
20-22	80	110	250	280
20-23	35	110	250	325
20-24	35	110	250	325
20-27	35	110	250	325
20-29	80			280
20-33				
22-1	35	110	250	325
22-2	70	145	215	290
22-5	35	110	250	325
22-6	80	110	250	280
22-7				
22-8	35	110	215	325
22-9	70	145	250	290
22-11	35	110	250	325
22-12	80	110	250	280
22-13	35	110	250	325
22-14	80	110	250	280
22-15	80	110	250	280
22-18	80	110	250	280
22-19	80	110	250	280
22-20	35	110	250	325
22-21	80	110	250	280
22-22		110	250	
22-23	35		250	

Insert Arrangement	Degrees			
	W	X	Y	Z
22-28	80			280
22-33	80	110	250	280
24-2	80			280
24-5	80	110	250	280
24-6	80	110	250	280
24-7	80	110	250	280
24-9	35	110	250	325
24-10	80			280
24-11	35	110	250	325
24-12	80	110	250	280
24-20	80	110	250	280
24-21	80	110	250	280
24-22	45	110	250	
24-27	80			280
24-28	80	110	250	280
28-1	80	110	250	280
28-2	35	110	250	325
28-3	70	145	215	290
28-5	35	110	250	325
28-6	70	145	215	290
28-7	35	110	250	325
28-8	80	110	250	280
28-9	80	110	250	280
28-10	80	110	250	280
28-11	80	110	250	280
28-12	90	180	270	
28-15	80	110	250	280
28-16	80	110	250	280

Insert Arrangement	Degrees			
	W	X	Y	Z
28-17	80	110	250	280
28-18	70	145	215	290
28-19	80	110	250	280
28-20	80	110	250	280
28-21	80	110	250	280
28-22	70	145	215	290
32-1	80	110	250	280
32-2	70	145	215	290
32-3	80	110	250	280
32-5	35	110	250	325
32-6	80	110	250	280
32-7	80	125	235	280
32-8	80	125	235	280
32-9	80	110	250	280
32-13	80	110	250	280
32-15	35	110	250	280
32-17	45	110	250	
36-3	70	145	215	290
36-4	70	145	215	290
36-5		120	240	
36-6	35	110	250	325
36-7	80	110	250	280
36-8	80	110	250	280
36-9	80	125	235	280
36-10	80	125	235	280
36-14	90	180	270	
36-15	60	125	245	305
36-52	72	144	216	288

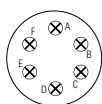
Insert Arrangement Drawings

QS Series • MIL-DTL-22992 QWLD Type Connectors

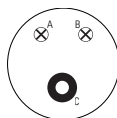
Arrangement
Service Rating
Number of Contacts



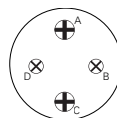
12-5
A
1 x #12



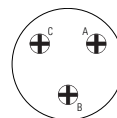
14-53
Inst.
6 x #16



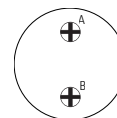
16-7
A
1 x #8
2 x #16



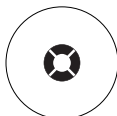
16-9
A
2 x #12
2 x #16



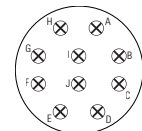
16-10
A
3 x #12



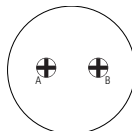
16-11
A
2 x #12



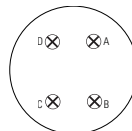
16-12
A
1 x #4



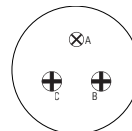
18-1
B, C, F, G=A; Bal.=Inst.
10 x #16



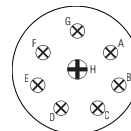
18-3
D
2 x #12



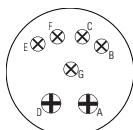
18-4
D
4 x #16



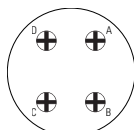
18-5
D
2 x #12
1 x #16



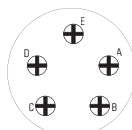
18-8
A
1 x #12
7 x #16



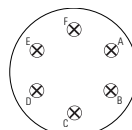
18-9
Inst.
2 x #12
5 x #16



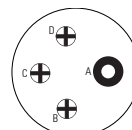
18-10
A
4 x #12



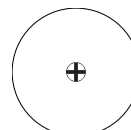
18-11
A
5 x #12



18-12
A
6 x #16

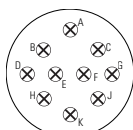


18-13
A
1 x #8
3 x #12

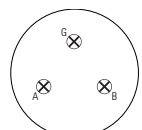


18-16
C
1 x #12

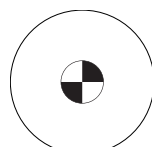
Arrangement
Service Rating
Number of Contacts



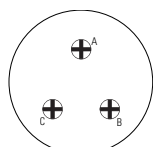
18-19
A
10 x #16



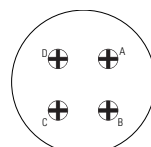
18-22
D
3 x #16



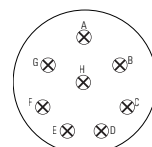
20-2
D
1 x #0



20-3
D
3 x #12

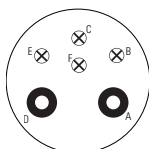


20-4
D
4 x #12

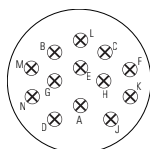


20-7
A, B, H, G=D; C, D, E, F=A
8 x #16

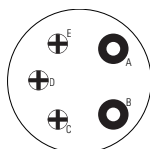
Arrangement
Service Rating
Number of Contacts



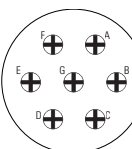
20-8
Inst.
2 x #8; 4 x #16



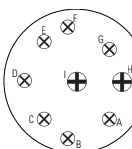
20-11
Inst.
13 x #16



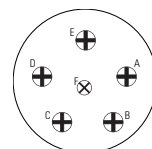
20-14
A
2 x #8
3 x #12



20-15
A
7 x #12



20-16
A
2 x #12
7 x #16



20-17
A
5 x #12
1 x #16

Arrangement
Service Rating
Number of Contacts

Contact Legend



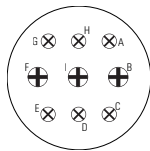
(Continued on next page)

Rev. 2150

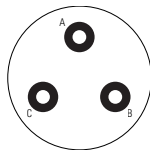
Insert Arrangement Drawings

QS Series • MIL-DTL-22992 QWLD Type Connectors

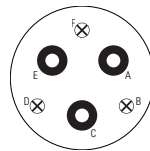
(Continued from previous page)



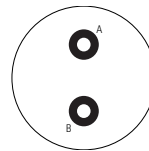
20-18
A
3 x #12
6 x #16



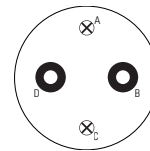
20-19
A
3 x #8



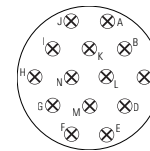
20-22
A
3 x #8
3 x #16



20-23
A
2 x #8

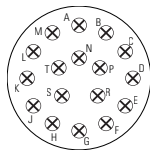


20-24
A
2 x #8
2 x #16

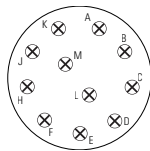


20-27
A
14 x #16

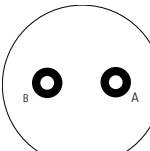
Arrangement
Service Rating
Number of Contacts



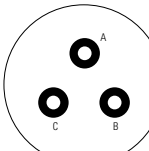
20-29
A
17 x #16



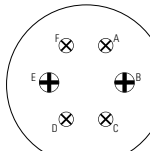
20-33
A
11 x #16



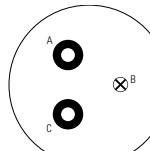
22-1
D
2 x #8



22-2
D
3 x #8

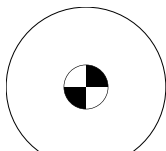


22-5
D
2 x #12
4 x #16

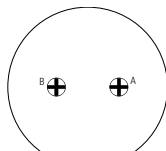


22-6
D
2 x #8
1 x #16

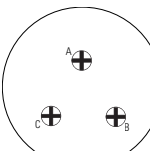
Arrangement
Service Rating
Number of Contacts



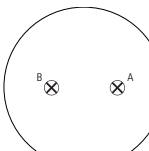
22-7
E
1 x #0



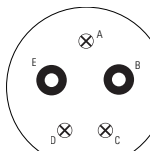
22-8
E
2 x #12



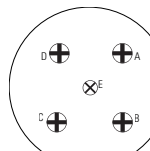
22-9
E
3 x #12



22-11
B
2 x #16

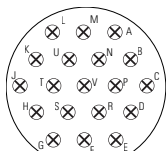


22-12
D
2 x #8
3 x #16

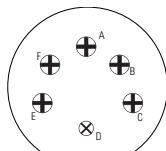


22-13
E=D; A,B,C,D=A
4 x #12
1 x #16

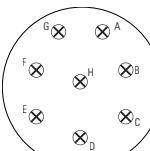
Arrangement
Service Rating
Number of Contacts



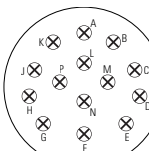
22-14
A
19 x #16



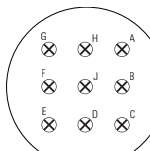
22-15
D=E; A,B,C,E,F=A
5 x #12
1 x #16



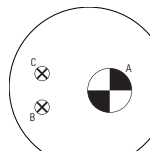
22-18
A,B,F,G,H=D; C,D,E=A
8 x #16



22-19
A
14 x #16



22-20
A
9 x #16



22-21
A
1 x #0
2 x #16

Arrangement
Service Rating
Number of Contacts

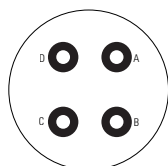
(Continued on next page)

Insert Arrangement Drawings

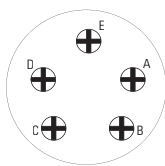
QS Series • MIL-DTL-22992 QWLD Type Connectors

(Continued from previous page)

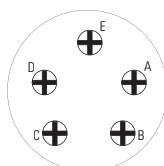
Arrangement
Service Rating
Number of Contacts



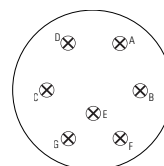
22-22
A
4 x #8



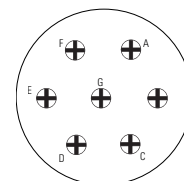
22-23
H=D; Bal.=A
8 x #12



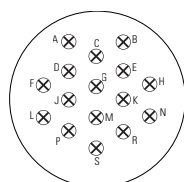
22-28
A
7 x #12



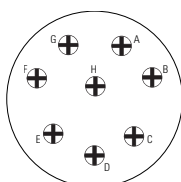
22-33
A,B,C,D=D; E,F,G=A
7 x #16



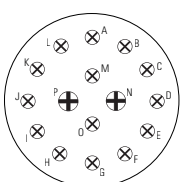
24-2
D
7 x #12



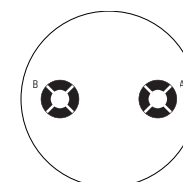
24-5
A
16 x #16



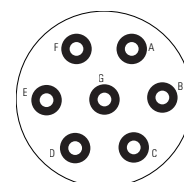
24-6
A,G,H=D; Bal.=A
8 x #12



24-7
A
2 x #12
14 x #16

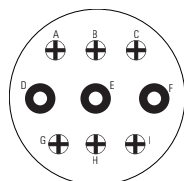


24-9
A
2 x #4

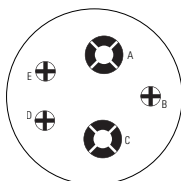


24-10
A
7 x #8

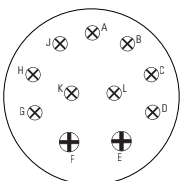
Arrangement
Service Rating
Number of Contacts



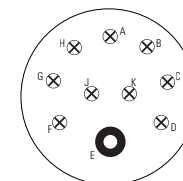
24-11
A
3 x #8
6 x #12



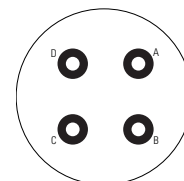
24-12
A
2 x #4
3 x #12



24-20
D
2 x #12
9 x #16

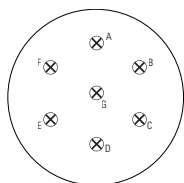


24-21
D
1 x #8
9 x #16

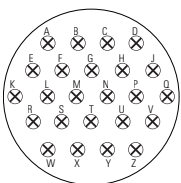


24-22
D
4 x #8

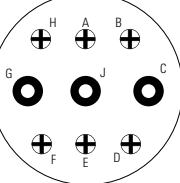
Arrangement
Service Rating
Number of Contacts



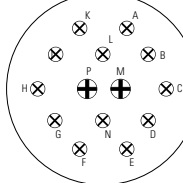
24-27
E
7 x #16



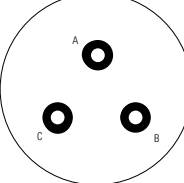
24-28
Inst.
24 x #16



28-1
A,J,E=D; Bal.=A
3 x #8
6 x #12



28-2
D
2 x #12
12 x #16



28-3
E
3 x #8

Arrangement
Service Rating
Number of Contacts

Contact Legend



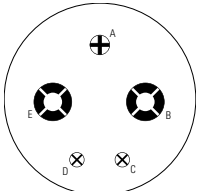
(Continued on next page)

Rev. 2150

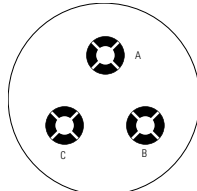
Insert Arrangement Drawings

QS Series • MIL-DTL-22992 QWLD Type Connectors

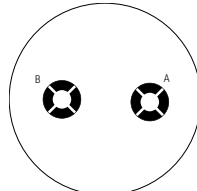
(Continued from previous page)



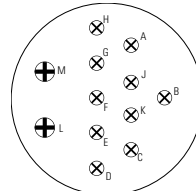
28-5
D
2 x #4
1 x #12
2 x #16



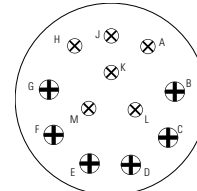
28-6
D
3 x #4



28-7
D
2 x #4

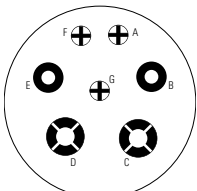


28-8
L,M=E; B=D; Bal.=A
2 x #12
10 x #16

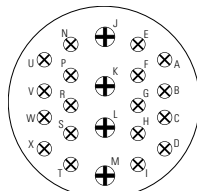


28-9
D
6 x #12
6 x #16

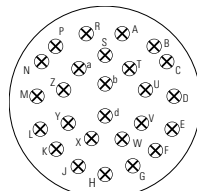
Arrangement
Service Rating
Number of Contacts



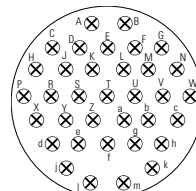
28-10
G=D; Bal.= A
2 x #4
2 x #8
3 x #12



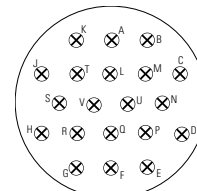
28-11
A
4 x #12
18 x #16



28-12
A
26 x #16

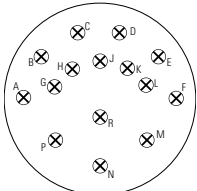


28-15
A
35 x #16

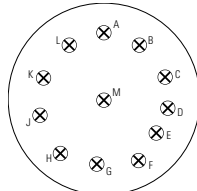


28-16
A
20 x #16

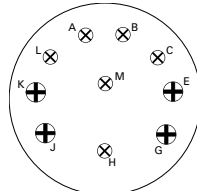
Arrangement
Service Rating
Number of Contacts



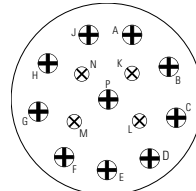
28-17
R=B; M,N,P=D; A to L=A
15 x #16



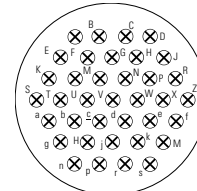
28-18
M=C; G,H,J,K,L= D;
A,B=A; Bal.=Inst.
12 x #16



28-19
H,M=B; A,B=D; Bal.=A.
4 x #12
6 x #16

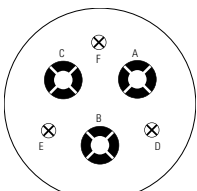


28-20
A
10 x #12
4 x #16

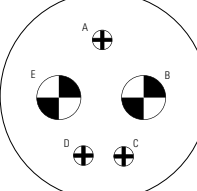


28-21
A
37 x #16

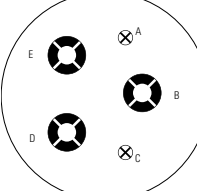
Arrangement
Service Rating
Number of Contacts



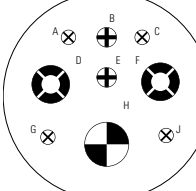
28-22
D
3 x #4
3 x #16



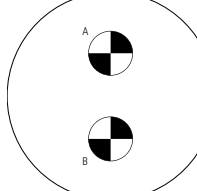
32-1
A=E; B,C,D,E=D
2 x #0
3 x #12



32-2
E
3 x #4
2 x #16



32-3
D
1 x #0; 2 x #4
2 x #12; 4 x #16



32-5
D
2 x #0

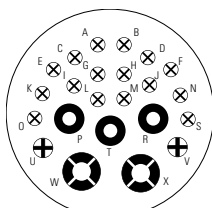
Arrangement
Service Rating
Number of Contacts

(Continued on next page)

Insert Arrangement Drawings

QS Series • MIL-DTL-22992 QWLD Type Connectors

(Continued from previous page)



32-6

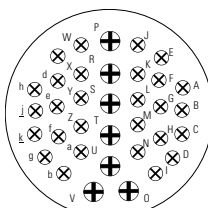
A

Arrangement

Service Rating

Number of Contacts

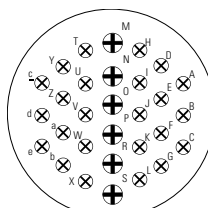
2 x #4; 3 x #8
2 x #12; 16 x #16



32-7

A,B,H,J=Inst.; Bal.=A

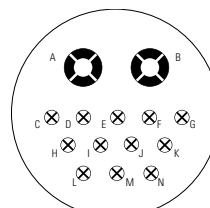
7 x #12
28 x #16



32-8

A

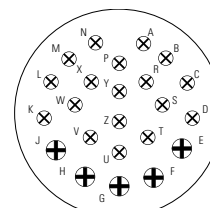
6 x #12
24 x #16



32-9

D

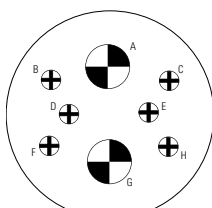
2 x #4
12 x #16



32-13

D

5 x #12
18 x #16



32-15

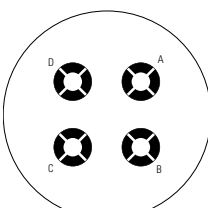
D

Arrangement

Service Rating

Number of Contacts

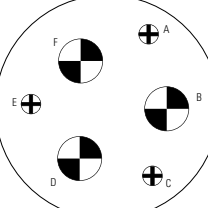
2 x #0
6 x #12



32-17

D

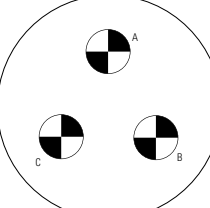
4 x #4



36-3

D

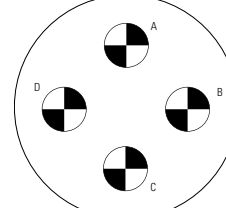
3 x #0
3 x #12



36-4

A=D; B,C=A

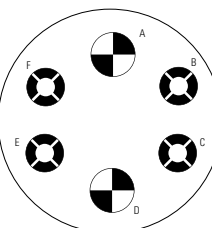
3 x #0



36-5

A

4 x #0



36-6

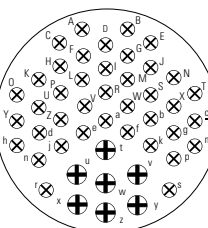
A

Arrangement

Service Rating

Number of Contacts

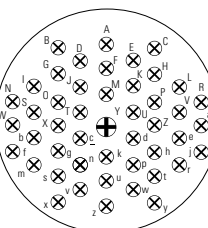
2 x #0
4 x #4



36-7

A

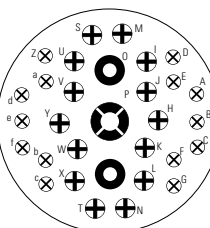
7 x #12
40 x #16



36-8

A

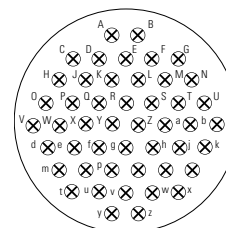
1 x #12
46 x #16



36-9

A

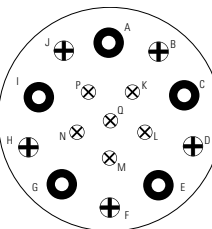
1 x #4; 2 x #8
14 x #12; 14 x #16



36-10

A

48 x #16



36-14

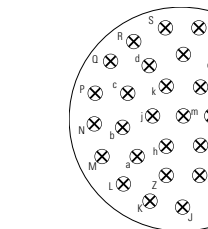
D

Arrangement

Service Rating

Number of Contacts

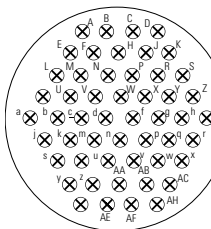
5 x #8; 5 x #12;
6 x #16



36-15

M=D; Bal.=A

35 x #16



36-52

A

52 x #16

Contact Legend



Rev. 2150

CONNECTOR SOLUTIONS FOR THE MODERN BATTLEFIELD



Mil-Spec Reliability with COTS Flexibility

QS Series connectors are built to the MIL-DTL-22992 QWLD standard and are compatible with all mil-spec components. They feature durable shells designed for abuse and offer both crimp and solder contacts for design flexibility, in addition to a wide array of protective accessories and mounting hardware for added reliability.



MS17344 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors



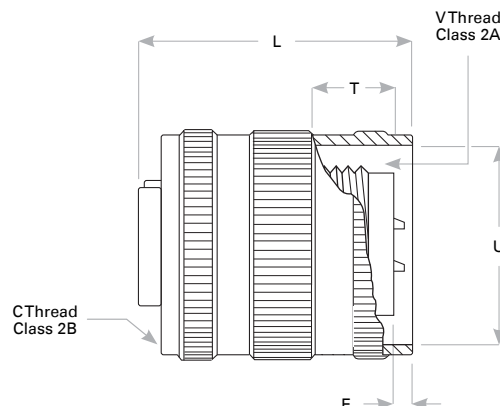
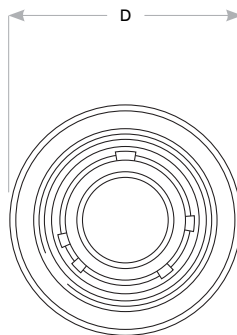
QS06 Cross-Reference & Compatibility

Compatible Brands	Equivalents	Mates
MIL-DTL-22992 QWLD	MS17344	MS17343, MS17345, MS17346, MS17347, MS17348
Amphenol	10-1946, 88-1946	10-1940, 10-1941, 10-1942, 10-1943, 10-1949, 88-1940, 88-1941, 88-1942, 88-1943, 88-1949
ITT Cannon	CWLD06	CWLD00, CWLD01, CWLD02, CWLD07, CWLD08

Plug Dimensions

Shell Size	D Max	C Thread Class 2B	L	T	E	U	V Thread Class 2A-LH
12	1.156 (29.4)	.8750-0.1P-0.2L-DS	1.534 (39.0)	.519 (13.2)	.030 (0.8)	.985 (25.0)	.7500-20UNEF
14	1.281 (32.5)	1.0000-0.1P-0.2L-DS	1.517 (38.5)	.519 (13.2)	.013 (0.3)	1.109 (28.2)	.8750-20UNEF
16	1.469 (37.3)	1.1250-0.1P-0.2L-DS	1.595 (40.5)	.519 (13.2)	.091 (2.3)	1.235 (31.4)	1.0000-20UNEF
18	1.563 (39.7)	1.2500-0.1P-0.2L-DS	1.720 (43.7)	.519 (13.2)	.216 (5.5)	1.359 (34.5)	1.1250-18UNEF
20	1.688 (42.9)	1.3750-0.1P-0.2L-DS	1.720 (43.7)	.519 (13.2)	.216 (5.5)	1.485 (37.7)	1.2500-18UNEF
22	1.844 (46.8)	1.5000-0.1P-0.2L-DS	1.720 (43.7)	.519 (13.2)	.216 (5.5)	1.609 (40.9)	1.3750-18UNEF
24	2.094 (53.2)	1.7500-0.1P-0.2L-DS	1.750 (44.5)	.519 (13.2)	.184 (4.7)	1.859 (47.2)	1.6250-18UNEF
28	2.344 (59.5)	2.0000-0.1P-0.2L-DS	1.750 (44.5)	.519 (13.2)	.184 (4.7)	2.109 (53.6)	1.8750-16UN
32	2.594 (65.9)	2.2500-0.1P-0.2L-DS	1.831 (46.5)	.525 (13.3)	.190 (4.8)	2.359 (59.9)	2.0625-16UNS
36	2.844 (72.2)	2.5000-0.1P-0.2L-DS	1.875 (47.6)	.525 (13.3)	.234 (5.9)	2.609 (66.3)	2.3125-16UNS

Dimensions are in inches (mm).



QS06 C 24-27 S N - E2(042) - 01

- BASIC PART NUMBER**
QS06 Solder plug
QC06 Crimp plug
- MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- SHELL SIZE & INSERT PATTERN**
 See Insert Arrangement Selection table, p. W-10
- CONTACT STYLE**
P Pin
S Socket
- ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Strain relief & adapter, p. W-25
E2 Environmental backshell, p. W-27
 (Add dash number for appropriate shell size, see p. W-27)
- OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
01 Protective cover

Note: See part builder (p. W-9) for additional kit options.

MS17345 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors

QS01 C 18-11 S N - E2(015) - 02

- 1 **BASIC PART NUMBER**
QS01 Solder cable mount receptacle
QC01 Crimp cable mount receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- 3 **SHELL SIZE & INSERT PATTERN**
 See Insert Arrangement Selection table, p. W-10
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Strain relief & adapter, p. W-25
E2 Environmental backshell, p. W-27
 (Add dash number for appropriate shell size, see p. W-27)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover



QS01 Cross-Reference & Compatibility

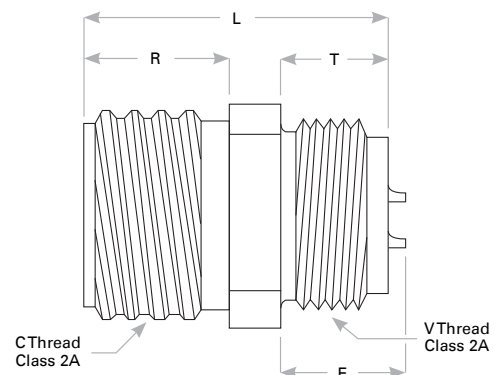
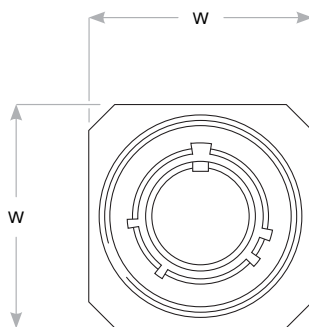
Compatible Brands	Equivalents	Mates
MIL-DTL-22992 QWLD	MS17345	MS17344
Amphenol	10-1941, 88-1941	10-1946, 88-1946
ITT Cannon	CWLD01	QWLD06

Note: See part builder (p. W-9) for additional kit options.

Receptacle Dimensions

Shell Size	W	C Thread Class 2A	L	R	T	E	V Thread Class 2A-LH
12	1.000 (25.4)	.8750-0.1P-0.2L-DS	1.579 (40.1)	.688 (17.5)	.641 (16.3)	.696 (17.7)	.7500-20UNEF
14	1.094 (27.8)	1.0000-0.1P-0.2L-DS	1.579 (40.1)	.688 (17.5)	.641 (16.3)	.696 (17.7)	.8750-20UNEF
16	1.281 (32.5)	1.1250-0.1P-0.2L-DS	1.579 (40.1)	.688 (17.5)	.641 (16.3)	.696 (17.7)	1.0000-20UNEF
18	1.375 (34.9)	1.2500-0.1P-0.2L-DS	1.582 (40.2)	.703 (17.9)	.625 (15.9)	.680 (17.3)	1.1250-18UNEF
20	1.500 (38.1)	1.3750-0.1P-0.2L-DS	1.582 (40.2)	.703 (17.9)	.625 (15.9)	.680 (17.3)	1.2500-18UNEF
22	1.625 (41.3)	1.5000-0.1P-0.2L-DS	1.582 (40.2)	.703 (17.9)	.625 (15.9)	.680 (17.3)	1.3750-18UNEF
24	1.875 (47.6)	1.7500-0.1P-0.2L-DS	1.641 (41.7)	.766 (19.5)	.625 (15.9)	.617 (15.7)	1.6250-18UNEF
28	2.125 (54.0)	2.0000-0.1P-0.2L-DS	1.641 (41.7)	.766 (19.5)	.625 (15.9)	.617 (15.7)	1.8750-16UN
32	2.375 (60.3)	2.2500-0.1P-0.2L-DS	1.641 (41.7)	.703 (17.9)	.563 (14.3)	.555 (14.1)	2.0625-16UN
36	2.625 (66.7)	2.5000-0.1P-0.2L-DS	1.641 (41.7)	.703 (17.9)	.563 (14.3)	.555 (14.1)	2.3125-16UN

Dimensions are in inches (mm).



Rev. 2150

MS17343 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors



QS00 Cross-Reference & Compatibility

Compatible Brands	Equivalents	Mates
MIL-DTL-22992 QWLD	MS17343	MS17344
Amphenol	10-1940, 88-1940	10-1946, 88-1946
ITT Cannon	CWLD00	CWLD06

QS00 C 20-4 P N - E2(033) - 02

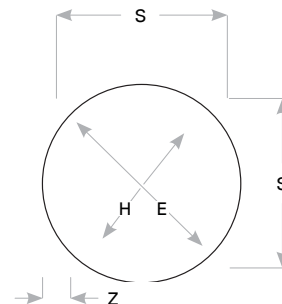
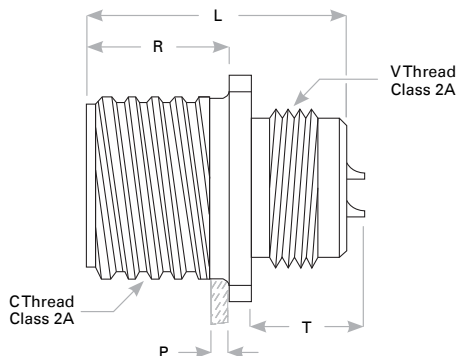
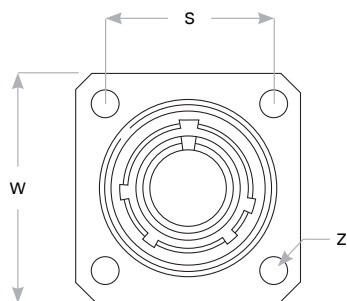
- 1 **BASIC PART NUMBER**
QS00 Solder wall mount receptacle
QC00 Crimp wall mount receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- 3 **SHELL SIZE & INSERT PATTERN**
 See Insert Arrangement Selection table, p. W-10
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Strain relief & adapter, p. W-25
E2 Environmental backshell, p. W-27
 (Add dash number for appropriate shell size, see p. W-27)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See part builder (p. W-9) for additional kit options.

Receptacle Dimensions

Shell Size	W	C Thread Class 2A	L	R	T Max	V Thread Class 2A-LH	P Max Rear Panel	S	Z	H Front Mount	E Rear Mount
12	1.188 (30.2)	.8750-0.1P-0.2L-DS	1.577 (40.1)	.797 (20.2)	.700 (17.8)	.7500-20UNEF	.156 (4.0)	.906 (23.0)	.150 (3.8)	.800 (20.3)	.954 (24.2)
14	1.281 (32.5)	1.0000-0.1P-0.2L-DS	1.577 (40.1)	.797 (20.2)	.700 (17.8)	.8750-20UNEF	.156 (4.0)	.969 (24.6)	.150 (3.8)	.925 (23.5)	1.079 (27.4)
16	1.375 (34.9)	1.1250-0.1P-0.2L-DS	1.577 (40.1)	.797 (20.2)	.700 (17.8)	1.0000-20UNEF	.125 (3.2)	1.062 (27.0)	.150 (3.8)	1.050 (26.7)	1.204 (30.6)
18	1.500 (38.1)	1.2500-0.1P-0.2L-DS	1.578 (40.1)	.797 (20.2)	.686 (17.4)	1.1250-18UNEF	.125 (3.2)	1.156 (29.4)	.177 (4.5)	1.175 (29.8)	1.329 (33.8)
20	1.625 (41.3)	1.3750-0.1P-0.2L-DS	1.578 (40.1)	.797 (20.2)	.686 (17.4)	1.2500-18UNEF	.125 (3.2)	1.250 (31.8)	.177 (4.5)	1.300 (33.0)	1.454 (36.9)
22	1.750 (44.5)	1.5000-0.1P-0.2L-DS	1.578 (40.1)	.797 (20.2)	.686 (17.4)	1.3750-18UNEF	.125 (3.2)	1.375 (34.9)	.177 (4.5)	1.425 (36.2)	1.579 (40.1)
24	2.000 (50.8)	1.7500-0.1P-0.2L-DS	1.641 (41.7)	.859 (21.8)	.585 (14.9)	1.6250-18UNEF	.187 (4.7)	1.562 (39.7)	.177 (4.5)	1.675 (42.5)	1.829 (46.5)
28	2.250 (57.2)	2.0000-0.1P-0.2L-DS	1.641 (41.7)	.859 (21.8)	.591 (15.0)	1.8750-16UN	.187 (4.7)	1.750 (44.5)	.177 (4.5)	1.925 (48.9)	2.079 (52.8)
32	2.500 (63.5)	2.2500-0.1P-0.2L-DS	1.639 (41.7)	.922 (23.4)	.528 (13.4)	2.0625-16UNS	.250 (6.4)	1.938 (49.2)	.209 (5.3)	2.1125 (53.7)	2.329 (59.2)
36	2.750 (69.9)	2.5000-0.1P-0.2L-DS	1.639 (41.7)	.922 (23.4)	.528 (13.4)	2.3125-16UNS	.218 (5.5)	2.188 (55.6)	.209 (5.3)	2.3625 (60.0)	2.579 (65.5)

Dimensions are in inches (mm).



Panel Cutout

Rev. 2150

MS17346 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors

QS02 C 24-22 P N - 03

1 2 3 4 5 6

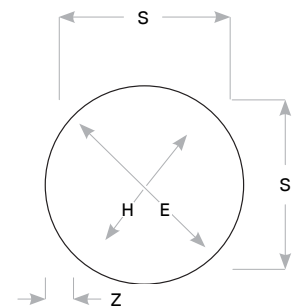
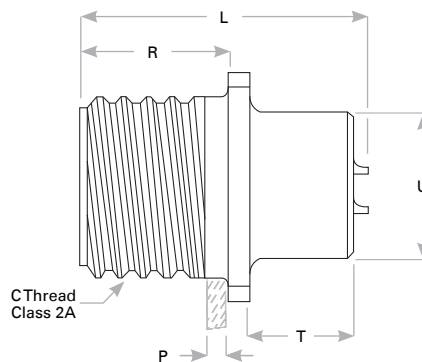
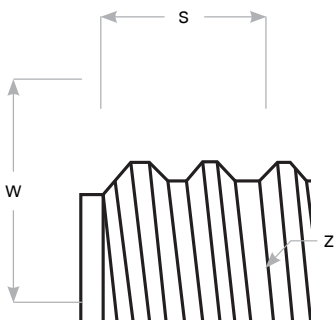
- 1 **BASIC PART NUMBER**
QS02 Solder box mount receptacle
QC02 Crimp box mount receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- 3 **SHELL SIZE & INSERT PATTERN**
 See Insert Arrangement Selection table, p. W-10
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- 6 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover + mounting gasket
03 02 kit + mounting bracket + sealing screws

Note: See part builder (p. W-9) for additional kit options.

Receptacle Dimensions

Shell Size	W	C Thread Class 2A	L	R	T	U	P Max Rear Panel	S	Z	H Front Mount	E Rear Mount
12	1.188 (30.2)	.8750-0.1P-0.2L-DS	1.638 (41.6)	.797 (20.2)	.640 (16.3)	.640 (16.3)	.156 (4.0)	.906 (23.0)	.150 (3.8)	.645 (16.4)	.954 (24.2)
14	1.281 (32.5)	1.0000-0.1P-0.2L-DS	1.638 (41.6)	.797 (20.2)	.640 (16.3)	.765 (19.4)	.156 (4.0)	.969 (24.6)	.150 (3.8)	.770 (19.6)	1.079 (27.4)
16	1.375 (34.9)	1.1250-0.1P-0.2L-DS	1.638 (41.6)	.797 (20.2)	.640 (16.3)	.890 (22.6)	.125 (3.2)	1.062 (27.0)	.150 (3.8)	.895 (22.7)	1.283 (32.6)
18	1.500 (38.1)	1.2500-0.1P-0.2L-DS	1.639 (41.6)	.797 (20.2)	.625 (15.9)	1.015 (25.8)	.125 (3.2)	1.156 (29.4)	.177 (4.5)	1.020 (25.9)	1.329 (33.8)
20	1.625 (41.3)	1.3750-0.1P-0.2L-DS	1.639 (41.6)	.797 (20.2)	.625 (15.9)	1.171 (29.7)	.125 (3.2)	1.250 (31.8)	.177 (4.5)	1.176 (29.9)	1.454 (36.9)
22	1.750 (44.5)	1.5000-0.1P-0.2L-DS	1.639 (41.6)	.797 (20.2)	.625 (15.9)	1.296 (32.9)	.125 (3.2)	1.375 (34.9)	.177 (4.5)	1.301 (33.1)	1.579 (40.1)
24	2.000 (50.8)	1.7500-0.1P-0.2L-DS	1.632 (41.5)	.859 (21.8)	.594 (15.1)	1.421 (36.1)	.187 (4.7)	1.562 (39.7)	.177 (4.5)	1.426 (36.2)	1.829 (46.5)
28	2.250 (57.2)	2.0000-0.1P-0.2L-DS	1.632 (41.5)	.859 (21.8)	.594 (15.1)	1.625 (41.3)	.187 (4.7)	1.750 (44.5)	.177 (4.5)	1.630 (41.4)	2.079 (52.8)
32	2.500 (63.5)	2.2500-0.1P-0.2L-DS	1.638 (41.6)	.922 (23.4)	.531 (13.5)	1.891 (48.0)	.250 (6.4)	1.938 (49.2)	.209 (5.3)	1.896 (48.2)	2.329 (59.2)
36	2.750 (69.9)	2.5000-0.1P-0.2L-DS	1.638 (41.6)	.922 (23.4)	.531 (13.5)	2.078 (52.8)	.218 (5.5)	2.188 (55.6)	.209 (5.3)	2.083 (52.9)	2.579 (65.5)

Dimensions are in inches (mm).



Panel Cutout

Rev. 2150

MS17347 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors



QS07 Cross-Reference & Compatibility

Compatible Brands	Equivalents	Mates
MIL-DTL-22992 QWLD	MS17347	MS17344
Amphenol	10-1943, 88-1943	10-1946, 88-1946
ITT Cannon	CWLD07	CWLD06

QS07 C 20-33 S N - E2(025) - 02

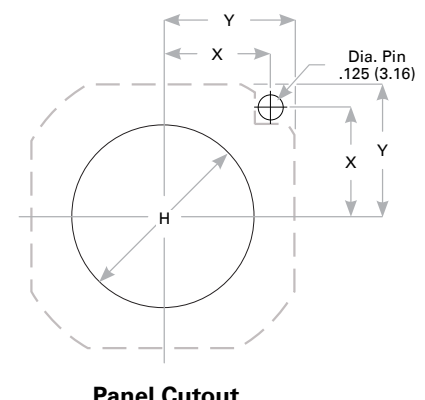
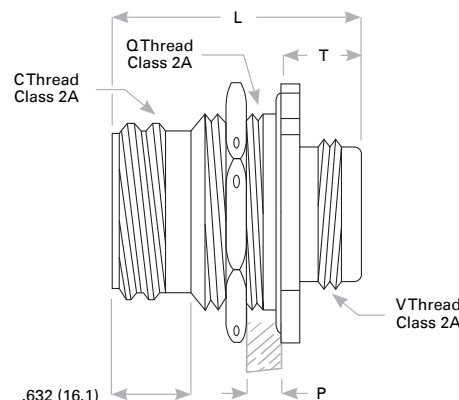
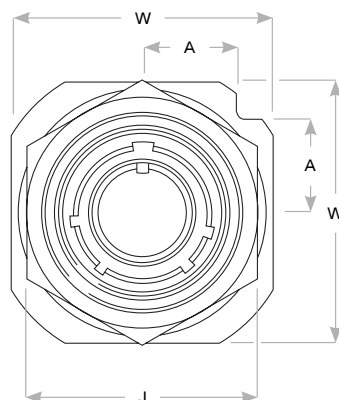
- 1 **BASIC PART NUMBER**
QS07 Solder jam nut wall mount receptacle
QC07 Crimp jam nut wall mount receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- 3 **SHELL SIZE & INSERT ARRANGEMENT**
 See Insert Arrangement Selection table, p. W-10
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- 6 **OPTIONAL BACKSHELL KIT (OMIT FOR NONE)**
B2 Strain relief & adapter, p. W-25
E2 Environmental backshell, p. W-27
 (Add dash number for appropriate shell size, see p. W-27)
- 7 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover

Receptacle Dimensions

Note: See part builder (p. W-9) for additional kit options.

Shell Size	W	A	J Hex	C Thread Class 2A	L	Q Thread Class 2A	T	V Thread Class 2A-LH	P Max Rear Panel	Y	X	H
12	1.375 (34.9)	.486 (12.3)	1.250 (31.8)	.8750-0.1P-0.2L-DS	1.782 (45.3)	1.000-20UNEF	.641 (16.3)	.750-20UNEF	.188 (4.8)	.688 (17.5)	.562 (14.3)	1.005 (25.5)
14	1.500 (38.1)	.530 (13.5)	1.312 (33.3)	1.0000-0.1P-0.2L-DS	1.782 (45.3)	1.125-18UNEF	.641 (16.3)	.875-20UNEF	.188 (4.8)	.750 (19.1)	.606 (15.4)	1.130 (28.7)
16	1.750 (44.5)	.623 (15.8)	1.500 (38.1)	1.1250-0.1P-0.2L-DS	1.844 (46.9)	1.250-18UNEF	.703 (17.9)	1.000-20UNEF	.188 (4.8)	.875 (22.2)	.699 (17.8)	1.255 (31.9)
18	1.875 (47.6)	.663 (16.8)	1.562 (39.7)	1.2500-0.1P-0.2L-DS	1.859 (47.3)	1.375-18UNEF	.703 (17.9)	1.125-18UNEF	.203 (5.2)	.938 (23.8)	.739 (18.8)	1.380 (35.1)
20	2.000 (50.8)	.707 (18.0)	1.750 (44.5)	1.3750-0.1P-0.2L-DS	1.859 (47.3)	1.500-18UNEF	.703 (17.9)	1.250-18UNEF	.203 (5.2)	1.000 (25.4)	.783 (19.9)	1.505 (38.2)
22	2.125 (54.0)	.751 (19.1)	1.875 (47.6)	1.5000-0.1P-0.2L-DS	1.859 (47.3)	1.625-18UNEF	.703 (17.9)	1.375-18UNEF	.203 (5.2)	1.062 (27.0)	.830 (21.1)	1.630 (41.4)
24	2.375 (60.3)	.840 (21.3)	2.125 (54.0)	1.7500-0.1P-0.2L-DS	1.922 (48.9)	1.875-16UN	.703 (17.9)	1.625-18UNEF	.265 (6.7)	1.188 (30.2)	.919 (23.3)	1.880 (47.8)
28	2.625 (66.7)	.928 (23.6)	2.375 (60.3)	2.0000-0.1P-0.2L-DS	2.016 (51.2)	2.125-16UN	.785 (19.9)	1.875-16UN	.277 (7.0)	1.312 (33.3)	1.007 (25.6)	2.130 (54.1)
32	2.875 (73.0)	1.017 (25.8)	2.625 (66.7)	2.2500-0.1P-0.2L-DS	2.016 (51.2)	2.375-16UN	.785 (19.9)	2.0625-16UN	.215 (5.5)	1.438 (36.5)	1.096 (27.8)	2.380 (60.5)
36	3.125 (79.4)	1.104 (28.0)	2.875 (73.0)	2.5000-0.1P-0.2L-DS	2.016 (51.2)	2.625-16UN	.785 (19.9)	2.3125-16UN	.215 (5.5)	1.562 (39.7)	1.183 (30.1)	2.630 (66.8)

Dimensions are in inches (mm).



Panel Cutout

Rev. 2150

MS17348 Connector Type Datasheet

QS Series • MIL-DTL-22992 QWLD Type Connectors

QS08 C 22-2 S W - 02

1 2 3 4 5 6

- 1 **BASIC PART NUMBER**
QS08 Solder jam nut box mount receptacle
QC08 Crimp jam nut box mount receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (environmental)
CP Aluminum, conductive (pressurized)
N Aluminum, non-conductive (environmental)
- 3 **SHELL SIZE & INSERT PATTERN**
 See Insert Arrangement Selection table, p. W-10
- 4 **CONTACT STYLE**
P Pin
S Socket
- 5 **ALTERNATE ROTATION**
N NORMAL or W, X, Y, Z
- 6 **OPTIONAL ACCESSORY KIT (OMIT FOR NONE)**
02 Protective cover

Note: See part builder (p. W-9) for additional kit options.



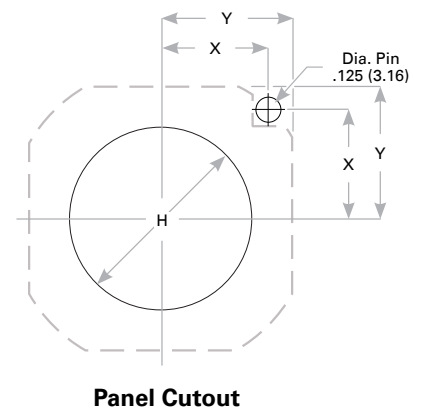
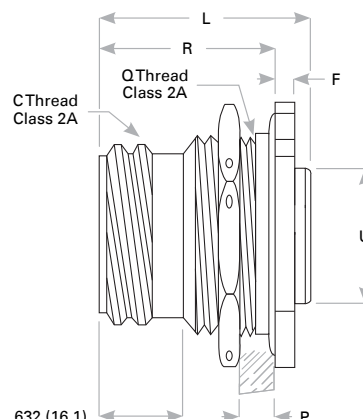
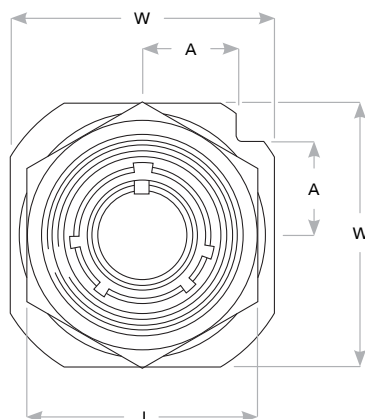
QS08 Cross-Reference & Compatibility

Compatible Brands	Equivalents	Mates
MIL-DTL-22992 QWLD	MS17348	MS17344
Amphenol	10-1949, 88-1949	10-1946, 88-1946
ITT Cannon	CWLD08	CWLD06

Receptacle Dimensions

Shell Size	W	A	J Hex	C Thread Class 2A	L	R	F	U	P Max Rear Panel	Y	X	H
12	1.375 (34.9)	.486 (12.3)	1.250 (31.8)	.8750-0.1P-0.2L-DS	1.578 (40.1)	1.235 (31.4)	.125 (3.2)	.640 (16.3)	.188 (4.8)	.688 (17.5)	.562 (14.3)	1.005 (25.5)
14	1.500 (38.1)	.530 (13.5)	1.312 (33.3)	1.0000-0.1P-0.2L-DS	1.578 (40.1)	1.235 (31.4)	.125 (3.2)	.765 (19.4)	.188 (4.8)	.750 (19.1)	.606 (15.4)	1.130 (28.7)
16	1.750 (44.5)	.623 (15.8)	1.500 (38.1)	1.1250-0.1P-0.2L-DS	1.578 (40.1)	1.235 (31.4)	.188 (4.8)	.890 (22.6)	.188 (4.8)	.875 (22.2)	.699 (17.8)	1.255 (31.9)
18	1.875 (47.6)	.663 (16.8)	1.562 (39.7)	1.2500-0.1P-0.2L-DS	1.578 (40.1)	1.203 (30.6)	.188 (4.8)	1.015 (25.8)	.203 (5.2)	.938 (23.8)	.739 (18.8)	1.380 (35.1)
20	2.000 (50.8)	.707 (18.0)	1.750 (44.5)	1.3750-0.1P-0.2L-DS	1.578 (40.1)	1.203 (30.6)	.188 (4.8)	1.171 (29.7)	.203 (5.2)	1.000 (25.4)	.783 (19.9)	1.505 (38.2)
22	2.125 (54.0)	.751 (19.1)	1.875 (47.6)	1.5000-0.1P-0.2L-DS	1.578 (40.1)	1.203 (30.6)	.188 (4.8)	1.296 (32.9)	.203 (5.2)	1.062 (27.0)	.830 (21.1)	1.630 (41.4)
24	2.375 (60.3)	.840 (21.3)	2.125 (54.0)	1.7500-0.1P-0.2L-DS	1.641 (41.7)	1.266 (32.2)	.188 (4.8)	1.421 (36.1)	.265 (6.7)	1.188 (30.2)	.919 (23.3)	1.880 (47.8)
28	2.625 (66.7)	.928 (23.6)	2.375 (60.3)	2.0000-0.1P-0.2L-DS	1.641 (41.7)	1.329 (33.8)	.219 (5.6)	1.625 (41.3)	.277 (7.0)	1.312 (33.3)	1.007 (25.6)	2.130 (54.1)
32	2.875 (73.0)	1.017 (25.8)	2.625 (66.7)	2.2500-0.1P-0.2L-DS	1.641 (41.7)	1.329 (33.8)	.219 (5.6)	1.891 (48.0)	.215 (5.5)	1.438 (36.5)	1.096 (27.8)	2.380 (60.5)
36	3.125 (79.4)	1.104 (28.0)	2.875 (73.0)	2.5000-0.1P-0.2L-DS	1.641 (41.7)	1.329 (33.8)	.219 (5.6)	2.078 (52.8)	.215 (5.5)	1.562 (39.7)	1.183 (30.1)	2.630 (66.8)

Dimensions are in inches (mm).



Rev. 2150

Strain Relief Backshell

QS Series • MIL-DTL-22992 QWLD Type Connectors



QSB2 - 20 C

- 1 BASIC PART NUMBER
- 2 SHELL SIZE
- 3 MATERIAL & FINISH

QSB2 Strain relief backshell & bushing

See Strain Relief Dimensions table below

C Aluminum, conductive (olive drab cadmium)

N Aluminum, non-conductive (anodized)

Note: QSAE adapter is required to couple QSB2 backshell. QSB2 will not couple directly to connector accessory threads.

QSB2 Compatibility

Compatible Brands	Connectors
MIL-DTL-22992 QWLD	MS17343, MS17344, MS17345, MS17347
Amphenol	10-1940, 10-1941, 10-1943, 10-1946, 88-1940, 88-1941, 88-1943, 88-1946
ITT Cannon	CWLD00, CWLD01, CWLD06, CWLD07

Strain Relief Dimensions

Shell Size	B Max	C Thread Class 2B	L ¹	Bushing Included	CC Cable Clearance	
					Free	Closed
12	.906 (23.0)	.6250-24UNEF	1.375 (34.9)	QSRB34-4	.302 (7.7)	.094 (2.4)
14	1.031 (26.2)	.7500-20UNEF	1.375 (34.9)	QSRB34-6	.428 (10.9)	.230 (5.8)
16	1.125 (28.6)	.8750-20UNEF	1.375 (34.9)	QSRB34-8	.515 (13.1)	.316 (8.0)
18	1.234 (31.3)	1.0000-20UNEF	1.437 (36.5)	QSRB34-10	.614 (15.6)	.378 (9.6)
20	1.484 (37.7)	1.18750-18UNEF	1.437 (36.5)	QSRB34-12	.738 (18.8)	.445 (11.3)
22	1.484 (37.7)	1.1875-18UNEF	1.437 (36.5)	QSRB34-12	.738 (18.8)	.445 (11.3)
24	1.671 (42.4)	1.4375-18UNEF	1.562 (39.7)	QSRB34-12, QSRB34-16	.926 (23.5)	.611 (15.5)
28	1.671 (42.4)	1.4375-18UNEF	1.562 (39.7)	QSRB34-12, QSRB34-16	.926 (23.5)	.611 (15.5)
32	2.188 (55.6)	1.7500-18UNS	1.812 (46.0)	QSRB34-16, QSRB34-20	1.200 (30.5)	.922 (23.4)
36	2.344 (59.5)	2.0000-18UNS	2.062 (52.4)	QSRB34-20, QSRB34-24	1.363 (34.6)	.922 (23.4)

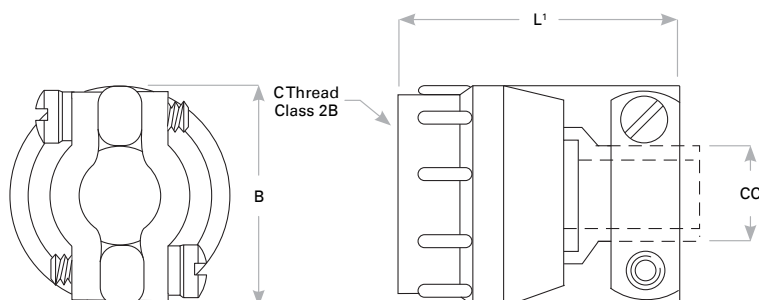
Dimensions are in inches (mm).

Bushing Dimensions

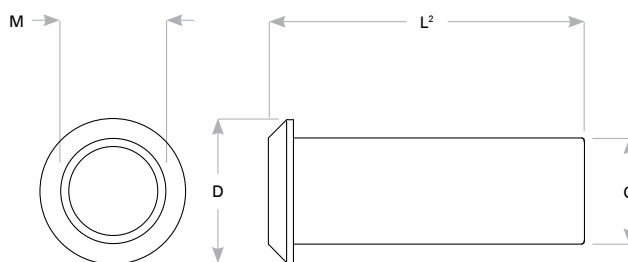
Bushing Part No	M Dia	D Dia	L ²	G Dia
QSRB34-3	.130 (3.3)	.374 (9.5)	2.875 (73.0)	.210 (5.3)
QSRB34-4	.220 (5.6)	.500 (12.7)	2.750 (69.9)	.302 (7.7)
QSRB34-6	.312 (7.9)	.614 (15.6)	2.625 (66.7)	.427 (10.9)
QSRB34-8	.437 (11.1)	.739 (18.8)	2.500 (63.5)	.552 (14.0)
QSRB34-10	.562 (14.3)	.889 (22.6)	2.375 (60.3)	.615 (15.6)
QSRB34-12	.625 (15.9)	1.084 (27.5)	2.250 (57.2)	.740 (18.8)
QSRB34-16	.750 (19.1)	1.309 (33.3)	2.125 (54.0)	.927 (23.6)
QSRB34-20	.937 (23.8)	1.592 (40.4)	2.000 (50.8)	1.240 (31.5)
QSRB34-24	1.250 (31.8)	1.842 (46.8)	1.875 (47.6)	1.365 (34.7)

Dimensions are in inches (mm).

Strain Relief



Bushing



Rev. 2150

QSAE - 20 C

- 1 **BASIC PART NUMBER**
QSAE Adapter (shell extender)
- 2 **SHELL SIZE**
See Adapter Dimensions table below
- 3 **MATERIAL AND FINISH**
C Aluminum, conductive (olive drab cadmium)
N Aluminum, non-conductive (anodized)

Note: QSAE adapter is required to couple QSB2 backshell.



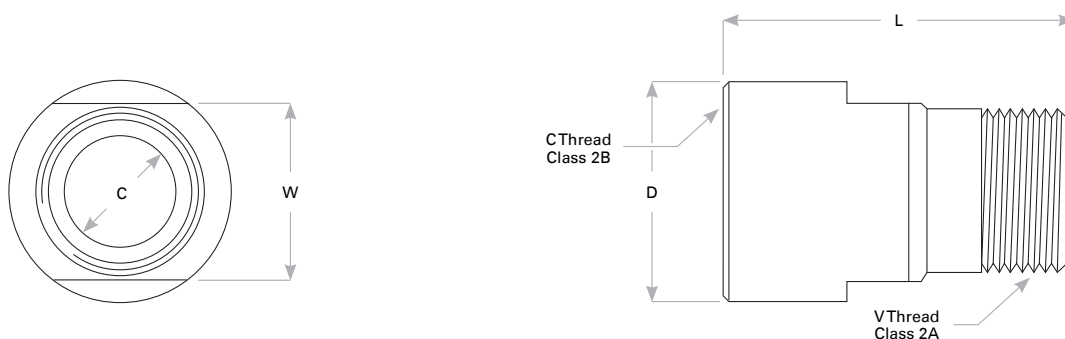
QSAE Compatibility

Compatible Brands	Connectors
MIL-DTL-22992 QWLD	MS17343, MS17344, MS17345, MS17347
Amphenol	10-1940, 10-1941, 10-1943, 10-1946, 88-1940, 88-1941, 88-1943, 88-1946
ITT Cannon	CWLD00, CWLD01, CWLD06, CWLD07

Adapter Dimensions

Shell Size	W	C Dia.	C Thread Class 2B-LH	L	D	V Thread Class 2A-LH
12	.688 (17.5)	.386 (9.8)	.750-20UNEF	1.609 (40.9)	.875 (22.2)	.625-24UNEF
14	.812 (20.6)	.500 (12.7)	.875-20UNEF	1.609 (40.9)	1.000 (25.4)	.750-20UNEF
16	.938 (23.8)	.625 (15.9)	1.000-20UNEF	1.609 (40.9)	1.188 (30.2)	.875-20UNEF
18	1.062 (27.0)	.752 (19.1)	1.125-18UNEF	1.609 (40.9)	1.312 (33.3)	1.000-20UNEF
20	1.250 (31.8)	.891 (22.6)	1.250-18UNEF	1.609 (40.9)	1.438 (36.5)	1.1875-18UNEF
22	1.250 (31.8)	.891 (22.6)	1.375-18UNEF	1.609 (40.9)	1.562 (39.7)	1.1875-18UNEF
24	1.500 (38.1)	1.111 (28.2)	1.625-18UNEF	1.609 (40.9)	1.812 (46.0)	1.4375-18UNEF
28	1.500 (38.1)	1.111 (28.2)	1.875-16UN	1.781 (45.2)	2.062 (52.4)	1.4375-18UNEF
32	1.875 (47.6)	1.422 (36.1)	2.0625-16UNS	1.781 (45.2)	2.250 (57.2)	1.750-18UNS
36	2.125 (54.0)	1.672 (42.5)	2.3125-16UNS	1.781 (45.2)	2.500 (63.5)	2.000-18UNS
40	2.375 (60.3)	1.914 (48.6)	2.625-16UN	2.032 (51.6)	2.812 (71.4)	2.250-16UN

Dimensions are in inches (mm).



Rev. 2150

Environmental Backshell

QS Series • MIL-DTL-22992 QWLD Type Connectors



QSE2 Compatibility

Compatible Brands	Connectors
MIL-DTL-22992 QWLD	MS17343, MS17344, MS17345, MS17347
Amphenol	10-1940, 10-1941, 10-1943, 10-1946, 88-1940, 88-1941, 88-1943, 88-1946
ITT Cannon	CWLD00, CWLD01, CWLD06, CWLD07

QSE2 - 015 C P

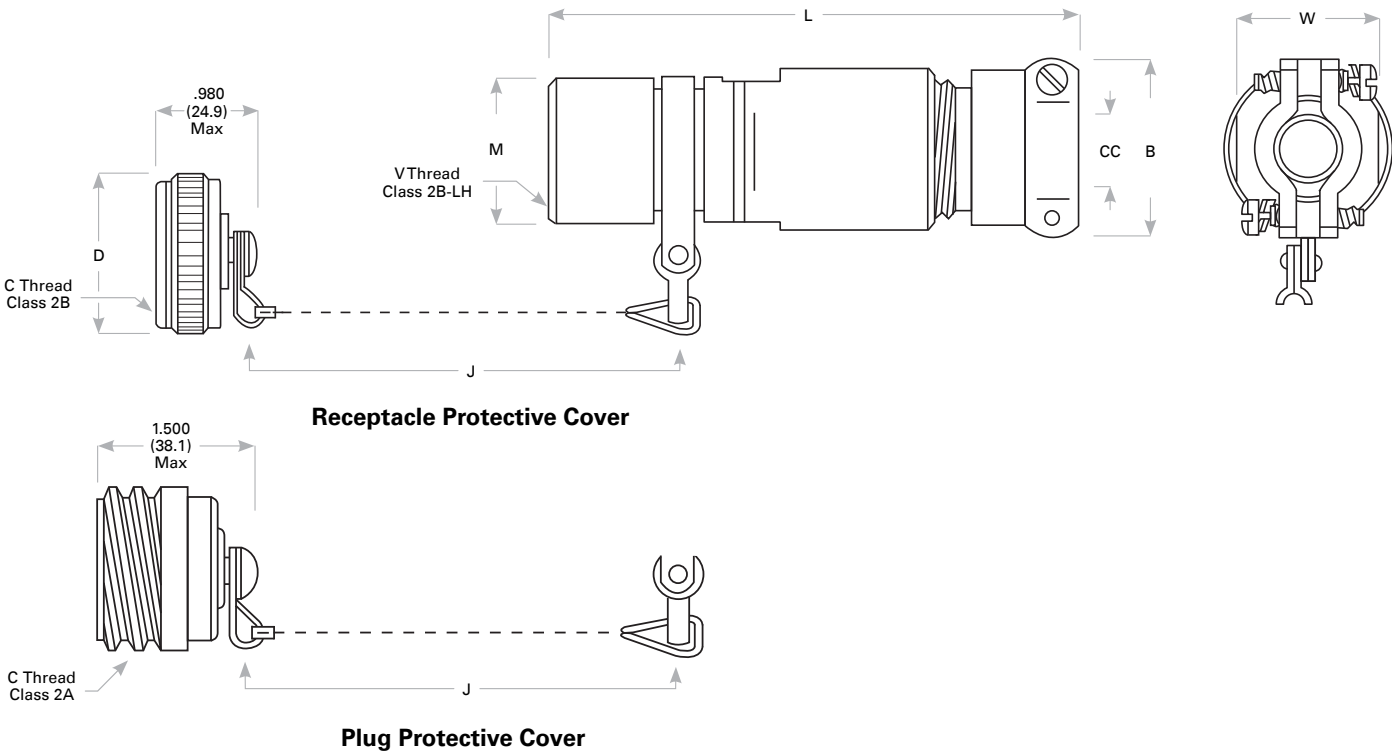
- 1234
- 1
2
3
4
- BASIC PART NUMBER**
QSE2 Straight environmental backshell

DASH NO.
See Backshell Dimensions table, next page

MATERIAL & FINISH
C Aluminum, conductive (olive drab cadmium)
N Aluminum, non-conductive (anodized)

OPTIONAL ATTACHED COVER (OMIT FOR NONE)
P Plug cover
R Receptacle cover

Note: See part builder (p. W-9) for additional kit options.



Rev. 2150

Backshell Dimensions

Dash No.	Shell Size	W	C Thread Class 2A/B	J Approx	V Thread Class 2B-LH	L Max	M	B	CC Cable Range	
									Max Dia	Min Dia
001	12	.812 (20.6)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	4.275 (108.6)	.938 (23.8)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
002	12	.938 (23.8)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	3.678 (93.4)	.938 (23.8)	1.125 (28.6)	.500 (12.7)	.406 (10.3)
003	12	.812 (20.6)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	4.275 (108.6)	.938 (23.8)	1.375 (34.9)	.405 (10.3)	.311 (7.9)
004	12	.812 (20.6)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	3.365 (85.5)	.938 (23.8)	1.062 (27.0)	.375 (9.5)	.281 (7.1)
005	12	.812 (20.6)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	3.365 (85.5)	.938 (23.8)	1.062 (27.0)	.281 (7.1)	.188 (4.8)
006	12	.812 (20.6)	.8750-0.1P-0.2L DS	5.000 (127.0)	.750-20 UNEF	3.182 (80.8)	.938 (23.8)	.938 (23.8)	.250 (6.4)	.156 (4.0)
007	14	1.125 (28.6)	1.0000-0.1P-0.2L DS	5.000 (127.0)	.875-20 UNEF	4.489 (114.0)	1.062 (27.0)	1.562 (39.7)	.625 (15.9)	.531 (13.5)
008	14	1.062 (27.0)	1.0000-0.1P-0.2L DS	5.000 (127.0)	.875-20 UNEF	4.177 (106.1)	1.062 (27.0)	1.375 (34.9)	.605 (15.4)	.511 (13.0)
009	14	1.062 (27.0)	1.0000-0.1P-0.2L DS	5.000 (127.0)	.875-20 UNEF	4.177 (106.1)	1.062 (27.0)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
010	14	.938 (23.8)	1.0000-0.1P-0.2L DS	5.000 (127.0)	.875-20 UNEF	3.678 (93.4)	1.062 (27.0)	1.125 (28.6)	.438 (11.1)	.344 (8.7)
011	14	1.062 (27.0)	1.0000-0.1P-0.2L DS	5.000 (127.0)	.875-20 UNEF	4.177 (106.1)	1.062 (27.0)	1.375 (34.9)	.405 (10.3)	.311 (7.9)
012	16	1.062 (27.0)	1.1250-0.1P-0.2L DS	5.000 (127.0)	1.000-20 UNEF	4.177 (106.1)	1.188 (30.2)	1.375 (34.9)	.605 (15.4)	.511 (13.0)
013	16	1.062 (27.0)	1.1250-0.1P-0.2L DS	5.000 (127.0)	1.000-20 UNEF	4.177 (106.1)	1.188 (30.2)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
014	16	1.062 (27.0)	1.1250-0.1P-0.2L DS	5.000 (127.0)	1.000-20 UNEF	4.177 (106.1)	1.312 (33.3)	1.375 (34.9)	.405 (10.3)	.311 (7.9)
015	18	1.250 (31.8)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.584 (116.4)	1.312 (33.3)	1.688 (42.9)	.828 (21.0)	.715 (18.2)
016	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.489 (114.0)	1.312 (33.3)	1.562 (39.7)	.699 (17.8)	.605 (15.4)
017	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.489 (114.0)	1.312 (33.3)	1.562 (39.7)	.625 (15.9)	.531 (13.5)
018	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.177 (106.1)	1.312 (33.3)	1.375 (34.9)	.605 (15.4)	.511 (13.0)
019	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.177 (106.1)	1.312 (33.3)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
020	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.489 (114.0)	1.312 (33.3)	1.562 (39.7)	.500 (12.7)	.406 (10.3)
021	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	4.489 (114.0)	1.312 (33.3)	1.562 (39.7)	.455 (11.6)	.361 (9.2)
022	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	3.901 (99.1)	1.312 (33.3)	1.062 (27.0)	.375 (9.5)	.281 (7.1)
023	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	3.932 (99.9)	1.312 (33.3)	1.125 (28.6)	.375 (9.5)	.281 (7.1)
024	18	1.125 (28.6)	1.2500-0.1P-0.2L DS	5.000 (127.0)	1.125-18UNEF	3.901 (99.1)	1.312 (33.3)	1.062 (27.0)	.281 (7.1)	.188 (4.8)
025	20	1.375 (34.9)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.896 (124.4)	1.438 (36.5)	2.125 (54.0)	1.055 (26.8)	.930 (23.6)
026	20	1.375 (34.9)	1.3750-0.1P-0.2L DS	5.000 (152.4)	1.250-18UNEF	4.896 (124.4)	1.438 (36.5)	2.125 (54.0)	1.000 (25.4)	.875 (22.2)
027	20	1.375 (34.9)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.647 (118.0)	1.438 (36.5)	1.812 (46.0)	.900 (22.9)	.787 (20.0)
028	20	1.250 (31.8)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.615 (117.2)	1.438 (36.5)	1.688 (42.9)	.828 (21.0)	.715 (18.2)
029	20	1.375 (34.9)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.647 (118.0)	1.438 (36.5)	1.812 (46.0)	.750 (19.1)	.637 (16.2)
030	20	1.250 (31.8)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.489 (114.0)	1.438 (36.5)	1.562 (39.7)	.699 (17.8)	.605 (15.4)
031	20	1.250 (31.8)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.308 (109.4)	1.438 (36.5)	1.375 (34.9)	.605 (15.4)	.511 (13.0)
032	20	1.250 (31.8)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.615 (117.2)	1.438 (36.5)	1.688 (42.9)	.562 (14.3)	.449 (11.4)
033	20	1.250 (31.8)	1.3750-0.1P-0.2L DS	5.000 (127.0)	1.250-18UNEF	4.489 (114.0)	1.438 (36.5)	1.562 (39.7)	.455 (11.6)	.361 (9.2)
034	22	1.625 (41.3)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.896 (124.4)	1.562 (39.7)	2.125 (54.0)	1.109 (28.2)	.984 (25.0)
035	22	1.625 (41.3)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.896 (124.4)	1.562 (39.7)	2.125 (54.0)	1.000 (25.4)	.875 (22.2)
036	22	1.375 (34.9)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.647 (118.0)	1.562 (39.7)	1.812 (46.0)	.900 (22.9)	.787 (20.0)
037	22	1.406 (35.7)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.306 (109.4)	1.562 (39.7)	1.375 (34.9)	.828 (21.0)	.715 (18.2)
038	22	1.375 (34.9)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.647 (118.0)	1.562 (39.7)	1.812 (46.0)	.805 (20.5)	.692 (17.6)
039	22	1.375 (34.9)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.647 (118.0)	1.562 (39.7)	1.812 (46.0)	.750 (19.1)	.637 (16.2)
040	22	1.406 (35.7)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.647 (118.0)	1.562 (39.7)	1.812 (46.0)	.562 (14.3)	.449 (11.4)
041	22	1.375 (34.9)	1.5000-0.1P-0.2L DS	6.000 (152.4)	1.375-18UNEF	4.306 (109.4)	1.562 (39.7)	1.375 (34.9)	.405 (10.3)	.311 (7.9)
042	24	1.875 (47.6)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.959 (126.0)	1.812 (46.0)	2.625 (66.7)	1.375 (34.9)	1.250 (31.8)
043	24	1.875 (47.6)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.959 (126.0)	1.812 (46.0)	2.469 (62.7)	1.310 (33.3)	1.185 (30.1)
044	24	1.875 (47.6)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.959 (126.0)	1.812 (46.0)	2.469 (62.7)	1.230 (31.2)	1.105 (28.1)
045	24	1.875 (47.6)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.959 (126.0)	1.812 (46.0)	2.469 (62.7)	1.180 (30.0)	1.055 (26.8)
046	24	1.625 (41.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.896 (124.4)	1.812 (46.0)	2.125 (54.0)	1.109 (28.2)	.984 (25.0)
047	24	1.625 (41.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.896 (124.4)	1.812 (46.0)	2.125 (54.0)	1.055 (26.8)	.930 (23.6)
048	24	1.625 (41.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.896 (124.4)	1.812 (46.0)	2.125 (54.0)	1.000 (25.4)	.675 (17.2)
049	24	1.625 (41.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.647 (118.0)	1.812 (46.0)	1.812 (46.0)	.970 (24.6)	.857 (21.8)

Dimensions are in inches (mm).

(Continued on next page)

Rev. 2150

Environmental Backshell

QS Series • MIL-DTL-22992 QWLD Type Connectors

Backshell Dimensions (Continued from previous page)

Dash No	Shell Size	W	C Thread Class 2A/B	J Approx	V Thread Class 2B-LH	L Max	M Dia	B	CC Cable Range	
									Max Dia	Min Dia
050	24	1.312 (33.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.647 (118.0)	1.812 (46.0)	1.812 (46.0)	.900 (22.9)	.787 (20.0)
051	24	1.546 (39.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.896 (124.4)	1.812 (46.0)	2.125 (54.0)	.880 (22.4)	.755 (19.2)
052	24	1.188 (30.2)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.542 (115.4)	1.812 (46.0)	1.688 (42.9)	.828 (21.0)	.715 (18.2)
053	24	1.312 (33.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.647 (118.0)	1.812 (46.0)	1.812 (46.0)	.805 (20.5)	.692 (17.6)
054	24	1.312 (33.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.647 (118.0)	1.812 (46.0)	1.812 (46.0)	.750 (19.1)	.637 (16.2)
055	24	1.312 (33.3)	1.7500-0.1P-0.2L DS	6.000 (152.4)	1.625-18UNEF	4.647 (118.0)	1.812 (46.0)	1.812 (46.0)	.630 (16.0)	.517 (13.1)
056	28	2.000 (50.8)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	5.021 (127.5)	2.062 (52.4)	2.625 (66.7)	1.531 (38.9)	1.406 (35.7)
057	28	2.000 (50.8)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	5.021 (127.5)	2.062 (52.4)	2.625 (66.7)	1.445 (36.7)	1.320 (33.5)
058	28	2.000 (50.8)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	5.021 (127.5)	2.062 (52.4)	2.625 (66.7)	1.375 (34.9)	1.250 (31.8)
059	28	1.780 (45.2)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.959 (126.0)	2.062 (52.4)	2.469 (62.7)	1.310 (33.3)	1.185 (30.1)
060	28	1.780 (45.2)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.959 (126.0)	2.062 (52.4)	2.469 (62.7)	1.230 (31.2)	1.105 (28.1)
061	28	1.780 (45.2)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.959 (126.0)	2.062 (52.4)	2.469 (62.7)	1.180 (30.0)	1.055 (26.8)
062	28	1.546 (39.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.896 (124.4)	2.062 (52.4)	2.125 (54.0)	1.109 (28.2)	.984 (25.0)
063	28	1.546 (39.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.896 (124.4)	2.062 (52.4)	2.125 (54.0)	1.000 (25.4)	.875 (22.2)
064	28	1.312 (33.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.647 (118.0)	2.062 (52.4)	1.812 (46.0)	.970 (24.6)	.857 (21.8)
065	28	1.546 (39.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.896 (124.4)	2.062 (52.4)	2.125 (54.0)	.880 (22.4)	.755 (19.2)
066	28	1.312 (33.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.647 (118.0)	2.062 (52.4)	1.812 (46.0)	.750 (19.1)	.637 (16.2)
067	28	1.312 (33.3)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.647 (118.0)	2.062 (52.4)	1.812 (46.0)	.680 (17.3)	.567 (14.4)
068	28	1.000 (25.4)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.431 (112.6)	2.062 (52.4)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
069	28	.875 (22.2)	2.0000-0.1P-0.2L DS	6.000 (152.4)	1.875-16UN	4.229 (107.4)	2.062 (52.4)	1.125 (28.6)	.375 (9.5)	.281 (7.1)
070	32	2.438 (61.9)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.385 (136.8)	2.312 (58.7)	3.171 (80.5)	1.828 (46.4)	1.700 (43.2)
071	32	2.438 (61.9)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.385 (136.8)	2.312 (58.7)	3.171 (80.5)	1.730 (43.9)	1.605 (40.8)
072	32	2.250 (57.2)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.083 (129.1)	2.312 (58.7)	2.953 (75.0)	1.656 (42.1)	1.531 (38.9)
073	32	2.250 (57.2)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.083 (129.1)	2.312 (58.7)	2.953 (75.0)	1.562 (39.7)	1.437 (36.5)
074	32	2.000 (50.8)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.021 (127.5)	2.312 (58.7)	2.625 (66.7)	1.531 (38.9)	1.406 (35.7)
075	32	2.000 (50.8)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.021 (127.5)	2.312 (58.7)	2.625 (66.7)	1.445 (36.7)	1.320 (33.5)
076	32	2.000 (50.8)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	5.021 (127.5)	2.312 (58.7)	2.625 (66.7)	1.375 (34.9)	1.250 (31.8)
077	32	1.780 (45.2)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.959 (126.0)	2.312 (58.7)	2.469 (62.7)	1.230 (31.2)	1.150 (29.2)
078	32	1.780 (45.2)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.959 (126.0)	2.312 (58.7)	2.469 (62.7)	1.130 (28.7)	1.005 (25.5)
079	32	1.546 (39.3)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.896 (124.4)	2.312 (58.7)	2.125 (54.0)	1.109 (28.2)	.984 (25.0)
080	32	1.546 (39.3)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.896 (124.4)	2.312 (58.7)	2.125 (54.0)	1.055 (26.8)	.930 (23.6)
081	32	1.312 (33.3)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.647 (118.0)	2.312 (58.7)	1.812 (46.0)	.970 (24.6)	.857 (21.8)
082	32	1.546 (39.3)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.896 (124.4)	2.312 (58.7)	2.125 (54.0)	.880 (22.4)	.755 (19.2)
083	32	1.312 (33.3)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.647 (118.0)	2.312 (58.7)	1.812 (46.0)	.750 (19.1)	.637 (16.2)
084	32	1.000 (25.4)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.431 (112.6)	2.312 (58.7)	1.375 (34.9)	.530 (13.5)	.436 (11.1)
085	32	.875 (22.2)	2.2500-0.1P-0.2L DS	6.000 (152.4)	2.0625-16UN	4.276 (108.6)	2.312 (58.7)	1.125 (28.6)	.375 (9.5)	.281 (7.1)
086	36	2.750 (69.9)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.385 (136.8)	2.562 (65.1)	3.375 (85.7)	2.062 (52.4)	1.917 (48.7)
087	36	2.438 (61.9)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.354 (136.0)	2.562 (65.1)	3.171 (80.5)	1.984 (50.4)	1.859 (47.2)
088	36	2.438 (61.9)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.354 (136.0)	2.562 (65.1)	3.171 (80.5)	1.900 (48.3)	1.775 (45.1)
089	36	2.438 (61.9)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.354 (136.0)	2.562 (65.1)	3.171 (80.5)	1.825 (46.4)	1.799 (45.7)
090	36	2.438 (61.9)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.354 (136.0)	2.562 (65.1)	3.171 (80.5)	1.730 (43.9)	1.605 (40.8)
091	36	2.250 (57.2)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.083 (129.1)	2.562 (65.1)	2.953 (75.0)	1.656 (42.1)	1.531 (38.9)
092	36	2.250 (57.2)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.083 (129.1)	2.562 (65.1)	2.953 (75.0)	1.562 (39.7)	1.437 (36.5)
093	36	2.000 (50.8)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.021 (127.5)	2.562 (65.1)	2.625 (66.7)	1.445 (36.7)	1.320 (33.5)
094	36	2.000 (50.8)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	5.021 (127.5)	2.562 (65.1)	2.625 (66.7)	1.375 (34.9)	1.250 (31.8)
095	36	1.780 (45.2)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	4.959 (126.0)	2.562 (65.1)	2.469 (62.7)	1.310 (33.3)	1.185 (30.1)
096	36	1.780 (45.2)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	4.959 (126.0)	2.562 (65.1)	2.469 (62.7)	1.230 (31.2)	1.105 (28.1)
097	36	1.780 (45.2)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	4.959 (126.0)	2.562 (65.1)	2.469 (62.7)	1.180 (30.0)	1.055 (26.8)
098	36	1.546 (39.3)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	4.896 (124.4)	2.562 (65.1)	2.125 (54.0)	1.109 (28.2)	.984 (25.0)
099	36	1.312 (33.3)	2.5000-0.1P-0.2L DS	6.000 (152.4)	2.3125-16UN	4.651 (118.1)	2.562 (65.1)	1.812 (46.0)	.970 (24.6)	.857 (21.8)

Dimensions are in inches (mm).

Rev. 2150

WE PERFORM WHERE OTHERS FAIL



You can always rely
on Milnec connectors
to keep your systems
running smoothly.

High Reliability—That's A Beautiful Thing

Our ruggedized connectors combine sealing ability and physical strength with design simplicity, making them the most dependable in the world. And their IP67 rating means they will make a reliable connection in the ugliest of industrial and military environments. High-reliability—that's a beautiful thing.



Protective Cover

QS Series • MIL-DTL-22992 QWLD Type Connectors



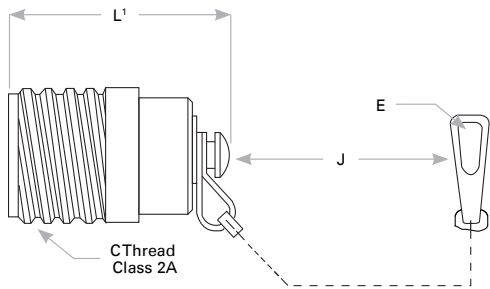
QSCP Compatibility

Compatible Brands	Plugs	Receptacles
MIL-DTL-22992 QWLD	MS17344	MS17343, MS17344, MS17345, MS17346, MS17347, MS17348
Amphenol	10-1946, 88-1946	10-1940, 10-1941, 10-1942, 10-1943, 10-1949, 88-1940, 88-1941, 88-1942, 88-1943
ITT Cannon	CWLD06	CWLD00, CWLD01, CWLD02, CWLD07, CWLD08

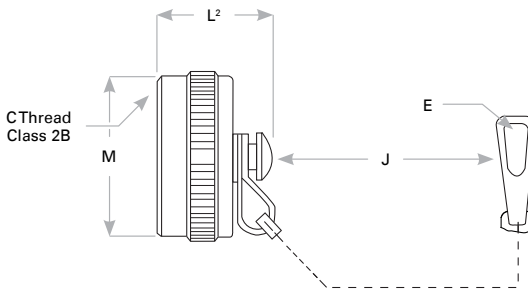
Protective Cover Dimensions

Shell Size	C Thread Class 2A	L ¹ Max	E Hex	J Chain Length	C Thread Class 2B	L ² Max	M Dia Max	H
12	.8750-0.1P-0.2L-DS	1.500 (38.1)	.156 (4.0)	5.000 (127.0)	.8750-0.1P-0.2L-DS	.765 (19.4)	1.094 (27.8)	1.016 (25.8)
14	1.0000-0.1P-0.2L-DS	1.500 (38.1)	.156 (4.0)	5.000 (127.0)	1.0000-0.1P-0.2L-DS	.765 (19.4)	1.219 (31.0)	1.141 (29.0)
16	1.1250-0.1P-0.2L-DS	1.500 (38.1)	.156 (4.0)	5.000 (127.0)	1.1250-0.1P-0.2L-DS	.980 (24.9)	1.344 (34.1)	1.266 (32.2)
18	1.2500-0.1P-0.2L-DS	1.500 (38.1)	.180 (4.6)	5.000 (127.0)	1.2500-0.1P-0.2L-DS	.980 (24.9)	1.469 (37.3)	1.391 (35.3)
20	1.3750-0.1P-0.2L-DS	1.500 (38.1)	.180 (4.6)	5.000 (127.0)	1.3750-0.1P-0.2L-DS	.980 (24.9)	1.562 (39.7)	1.516 (38.5)
22	1.5000-0.1P-0.2L-DS	1.500 (38.1)	.180 (4.6)	6.000 (152.4)	1.5000-0.1P-0.2L-DS	.980 (24.9)	1.688 (42.9)	1.641 (41.7)
24	1.7500-0.1P-0.2L-DS	1.500 (38.1)	.180 (4.6)	6.000 (152.4)	1.7500-0.1P-0.2L-DS	.980 (24.9)	1.938 (49.2)	1.891 (48.0)
28	2.0000-0.1P-0.2L-DS	1.500 (38.1)	.180 (4.6)	6.000 (152.4)	2.0000-0.1P-0.2L-DS	.980 (24.9)	2.219 (56.4)	2.141 (54.4)
32	2.2500-0.1P-0.2L-DS	1.500 (38.1)	.209 (5.3)	6.000 (152.4)	2.2500-0.1P-0.2L-DS	.980 (24.9)	2.469 (62.7)	2.391 (60.7)
36	2.5000-0.1P-0.2L-DS	1.500 (38.1)	.209 (5.3)	6.000 (152.4)	2.5000-0.1P-0.2L-DS	.980 (24.9)	2.719 (69.1)	2.641 (67.1)

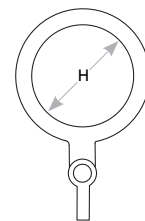
Dimensions are in inches (mm).



Plug Protective Cover



Receptacle Protective Cover



Jam Nut Ring

QSCP - 20 C E

- BASIC PART NUMBER**
QSCP Plug cover
QSCR Receptacle cover
- SHELL SIZE**
See Protective Cover Dimensions table below
- MATERIAL & FINISH**
C Aluminum, conductive (olive drab cadmium)
N Aluminum, non-conductive (anodized)
- ATTACHMENT OPTION**
E Eyelet attachment on sash chain
J Jam nut ring attachment on sash chain

Note: See part builder (p. W-9) for additional kit options.

Stowage Receptacle

QS Series • MIL-DTL-22992 QWLD Type Connectors

QSCD - C 20

- 1 **BASIC PART NUMBER**
QSCD Stowage receptacle
- 2 **MATERIAL & FINISH**
C Aluminum, conductive (olive drab cadmium)
N Aluminum, non-conductive (anodized)
- 3 **SHELL SIZE**
See Stowage Receptacle Dimensions table below



Note: See part builder (p. W-9) for additional kit options.

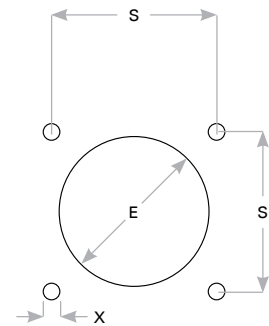
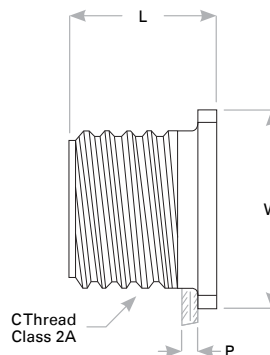
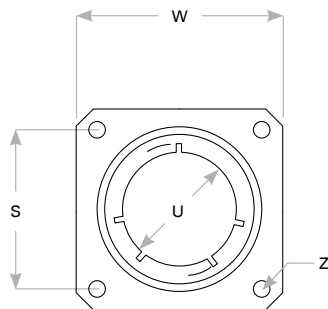
QSCD Compatibility

Compatible Brands	Mates
MIL-DTL-22992 QWLD	MS17344
Amphenol	10-1946, 88-1946
ITT Cannon	CWLD06

Stowage Receptacle Dimensions

Shell Size	W	U	Z	C Thread Class 2A	L	P Max Rear Panel	S	X	E Rear Mount
12	1.188 (30.2)	.567 (14.4)	.150 (3.8)	.8750-0.1P-0.2L-DS	.938 (23.8)	.156 (4.0)	.906 (23.0)	.150 (3.8)	.954 (24.2)
14	1.281 (32.5)	.692 (17.6)	.150 (3.8)	1.0000-0.1P-0.2L-DS	.938 (23.8)	.156 (4.0)	.969 (24.6)	.150 (3.8)	1.079 (27.4)
16	1.375 (34.9)	.817 (20.8)	.150 (3.8)	1.1250-0.1P-0.2L-DS	.938 (23.8)	.125 (3.2)	1.062 (27.0)	.150 (3.8)	1.204 (30.6)
18	1.500 (38.1)	.942 (23.9)	.177 (4.5)	1.2500-0.1P-0.2L-DS	.953 (24.2)	.125 (3.2)	1.156 (29.4)	.177 (4.5)	1.329 (33.8)
20	1.625 (41.3)	1.068 (27.1)	.177 (4.5)	1.3750-0.1P-0.2L-DS	.953 (24.2)	.125 (3.2)	1.250 (31.8)	.177 (4.5)	1.454 (36.9)
22	1.750 (44.5)	1.192 (30.3)	.177 (4.5)	1.5000-0.1P-0.2L-DS	.953 (24.2)	.125 (3.2)	1.375 (34.9)	.177 (4.5)	1.579 (40.1)
24	2.000 (50.8)	1.317 (33.5)	.177 (4.5)	1.7500-0.1P-0.2L-DS	1.047 (26.6)	.187 (4.7)	1.562 (39.7)	.177 (4.5)	1.829 (46.5)
28	2.250 (57.2)	1.536 (39.0)	.177 (4.5)	2.0000-0.1P-0.2L-DS	1.047 (26.6)	.187 (4.7)	1.750 (44.5)	.177 (4.5)	2.079 (52.8)
32	2.500 (63.5)	1.786 (45.4)	.209 (5.3)	2.2500-0.1P-0.2L-DS	1.110 (28.2)	.250 (6.4)	1.938 (49.2)	.209 (5.3)	2.329 (59.2)
36	2.750 (69.9)	2.005 (50.9)	.209 (5.3)	2.5000-0.1P-0.2L-DS	1.110 (28.2)	.218 (5.5)	2.188 (55.6)	.209 (5.3)	2.579 (65.5)

Dimensions are in inches (mm).



Panel Cutout

Rev. 2150

Mounting Gasket

QS Series • MIL-DTL-22992 QWLD Type Connectors



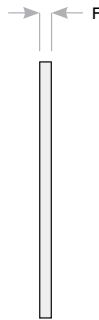
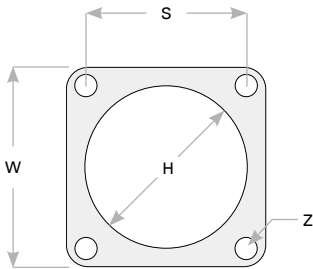
QSGE Compatibility

Compatible Brands	Connectors
MIL-DTL-22992 QWLD	MS17343, MS17346
Amphenol	10-1940, 10-1942, 88-1940, 88-1942
ITT Cannon	CWLD00, CWLD02

Gasket Dimensions

Shell Size	W	S	Z Dia	H Dia	F
12	1.188 (30.2)	.906 (23.0)	.172 (4.4)	.875 (22.2)	.031 (0.8)
14	1.281 (32.5)	.969 (24.6)	.172 (4.4)	1.000 (25.4)	.031 (0.8)
16	1.375 (34.9)	1.063 (27.0)	.172 (4.4)	1.125 (28.6)	.031 (0.8)
18	1.500 (38.1)	1.156 (29.4)	.203 (5.2)	1.250 (31.8)	.031 (0.8)
20	1.625 (41.3)	1.250 (31.8)	.203 (5.2)	1.375 (34.9)	.031 (0.8)
22	1.750 (44.5)	1.375 (34.9)	.203 (5.2)	1.500 (38.1)	.031 (0.8)
24	2.000 (50.8)	1.563 (39.7)	.203 (5.2)	1.750 (44.5)	.031 (0.8)
28	2.250 (57.2)	1.750 (44.5)	.203 (5.2)	2.000 (50.8)	.031 (0.8)
32	2.500 (63.5)	1.938 (49.2)	.219 (5.6)	2.188 (55.6)	.031 (0.8)
36	2.750 (69.9)	2.188 (55.6)	.219 (5.6)	2.438 (61.9)	.031 (0.8)

Dimensions are in inches (mm).



QSGE - 20

1 BASIC PART NUMBER

- QSGE** Neoprene environmental (weather resistant)
Temp. range -40°F to +230°F (-40°C to +110°C)
- QSGS** Conductive EMI-RFI neoprene, Ni-Cu alloy mesh
Temp. range -40°F to +230°F (-40°C to +110°C)
- QSGL** 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
- QSGD** 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 part builder (p. W-9) for additional kit options.

QS Series • MIL-DTL-22992 QWLD Type Connectors

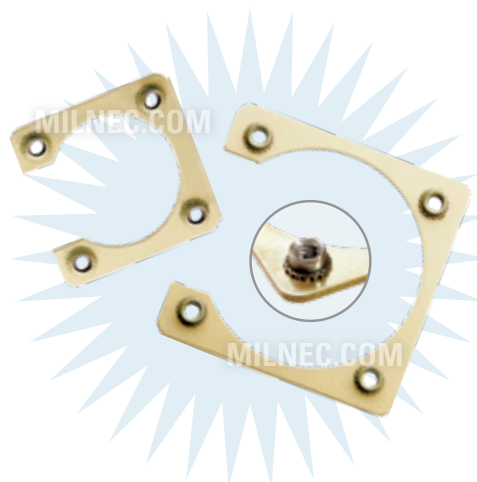
1 BASIC PART NUMBER
QSMB Mounting bracket with SST lock

2 SHELL SIZE
 See Bracket Dimension

3 OPTIONAL ACCESSORY KIT

See Bracket Dimensions table below

D A kit + fluorosilicone EMI/RFI gasket

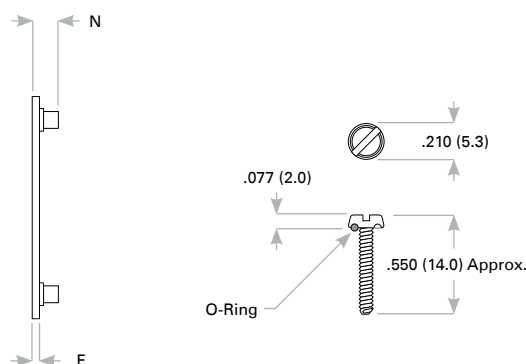
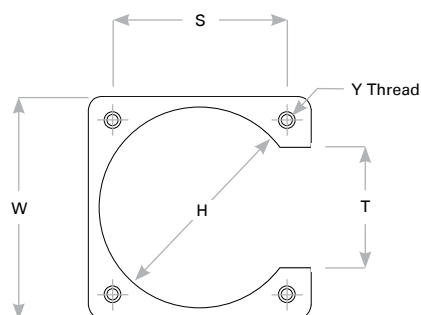


QSMB Compatibility

Compatible Brands	Connectors
MIL-DTL-22992 QWLD	MS17343, MS17346
Amphenol	10-1940, 10-1942, 88-1940, 88-1942
ITT Cannon	CWLD00, CWLD02

Shell Size	W	S	H	T	N	F	Screw Size	Y Thread
12	1.198 (30.4)	.906 (23.0)	.984 (25.0)	.624 (15.8)	.136 (3.5)	.040 (1.0)	#4	4-40 UNJC-3B
14	1.280 (32.5)	.969 (24.6)	1.094 (27.8)	.687 (17.4)	.136 (3.5)	.040 (1.0)	#4	4-40 UNJC-3B
16	1.406 (35.7)	1.062 (27.0)	1.220 (31.0)	.780 (19.8)	.136 (3.5)	.040 (1.0)	#4	4-40 UNJC-3B
18	1.535 (39.0)	1.156 (29.4)	1.345 (34.2)	.874 (22.2)	.136 (3.5)	.040 (1.0)	#4	4-40 UNJC-3B
20	1.665 (42.3)	1.250 (31.8)	1.478 (37.5)	.968 (24.6)	.136 (3.5)	.040 (1.0)	#4	4-40 UNJC-3B
22	1.738 (44.1)	1.375 (34.9)	1.483 (37.7)	.907 (23.0)	.153 (3.9)	.040 (1.0)	#6	6-32 UNJC-3B
24	2.000 (50.8)	1.562 (39.7)	1.820 (46.2)	1.125 (28.6)	.153 (3.9)	.040 (1.0)	#6	6-32 UNJC-3B
28	2.312 (58.7)	1.750 (44.5)	2.062 (52.4)	1.188 (30.2)	.153 (3.9)	.040 (1.0)	#6	6-32 UNJC-3B
32	2.500 (63.5)	1.938 (49.2)	2.312 (58.7)	1.375 (34.9)	.153 (3.9)	.040 (1.0)	#6	6-32 UNJC-3B
36	2.925 (74.3)	2.188 (55.6)	2.675 (68.0)	1.500 (38.1)	.210 (5.3)	.040 (1.0)	#8	8-32 UNJC-3B

Dimensions are in inches (mm).



Hand Crimpers & Positioners

QS Series • MIL-DTL-22992 QWLD 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	Contact 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
TK201B-KIT	TK101 crimp tool with TP291 turret positioner	#16, #12	QS Series	MIL-DTL-22992 QWLD*

* 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)	