

Extensive range of OPL standard and custom audio connectors trusted by our fighting forces for 35 years

MIL-DTL-55116 audio connectors



EATON

Powering Business Worldwide

MIL-DTL-55116 solutions

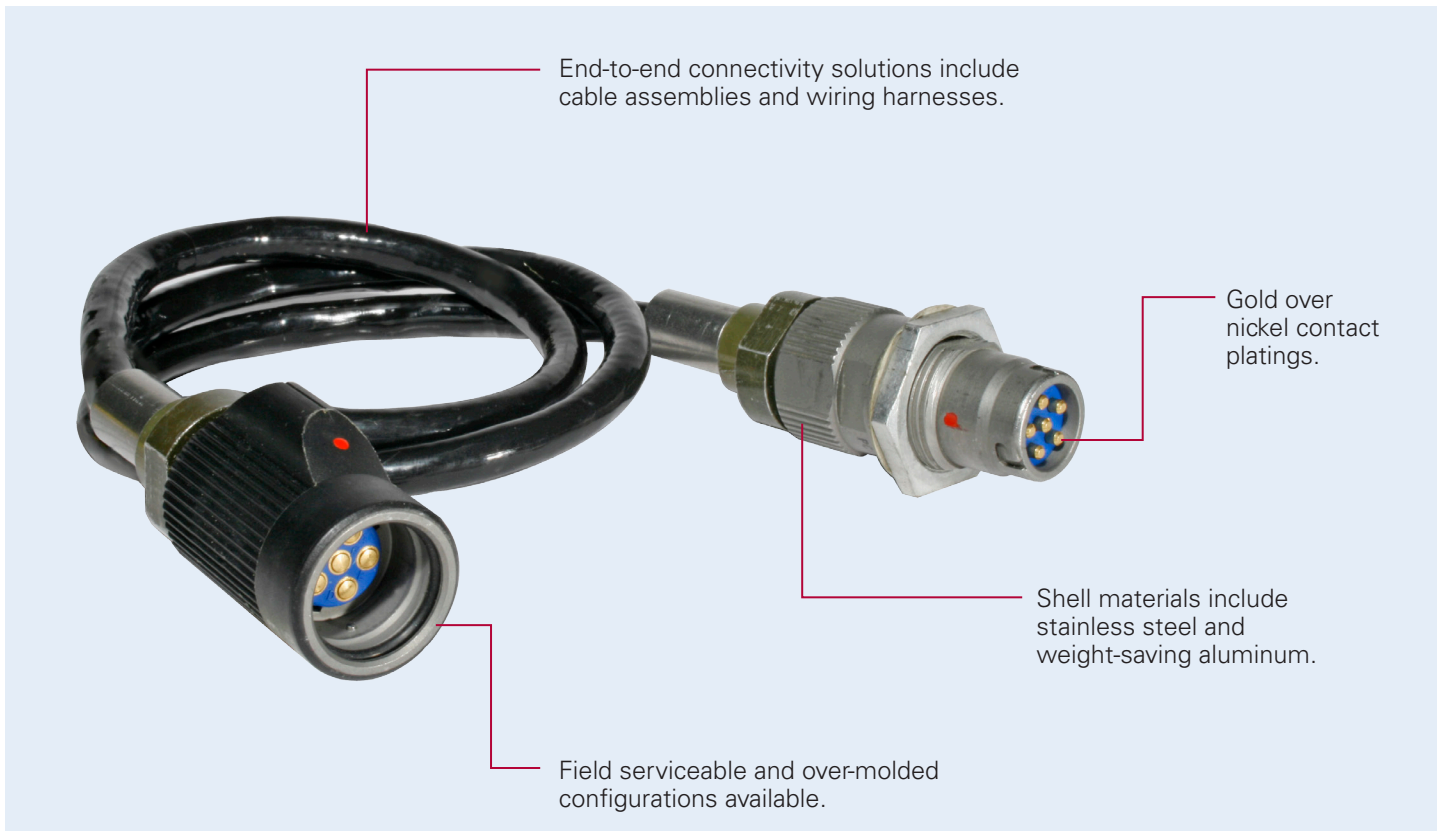
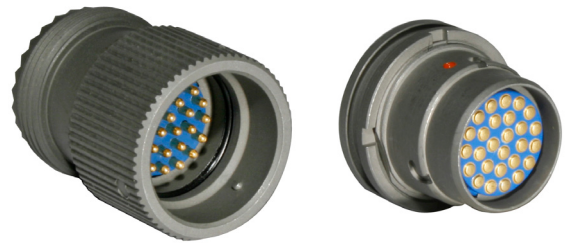
Eaton's MIL-DTL-55116 connectors and cable assemblies incorporate rugged designs that have been field proven in an extensive range of applications that include the SINCGARS and JTRS radio systems.

A comprehensive array of QPL and specialized designs includes in-line and panel-mount connectors, EMI/RFI filtered receptacles (left image), feedthroughs, and extended length, bulkhead connectors (right image).

Quick turn, custom solutions include cable assemblies, wiring harnesses, and high-pin-count connectors that utilize MIL-DTL-55116-style shells.



MIL-DTL-55116-style solutions are available with up to 27 contacts



Solutions overview and general specifications

21 QPL, NSA and specialized plugs

- M55116/1 to /8
- NSA ON241774-1 and -2
- Lightweight and right angle
- Thread and flange panel mount



23 QPL, NSA, and filtered receptacles

- M55116/11 to /14
- M55116/9 and /10
- NSA ON241775-1 to -5
- Application-optimized filtered solutions



24 Specialized receptacles

- Extended bodies for bulkhead mounting
- Double-ended feedthroughs



25 High-density solutions

- 19 and 27 contact connectors
- In-line, panel mount, and filtered configurations



Materials and Finishes

Shells And Panel Nuts	Passivated Stainless Steel, Aluminum Shells Available as Noted on Detail Pages
Backshell (Extended Receptacle)	Nickel-Plated Brass
Contact Material	Copper Alloy
Contact Plating	Gold Over Nickel
Insert	Diallyl Phthalate per MIL-M-14F, Type MDG

Electrical

Dielectric Strength	500 VRMS
Insulation Resistance	1000 Megaohms Minimum
Contact Resistance (mated)	0.05 Ohms Maximum

Mechanical

Air Pressure	2.5 PSI
Water Immersion	48 Hours at Six Feet
Mate/Unmate Durability	3000 Cycles

MIL-DTL-55116 QPL, NSA, and specialized plugs

Eaton’s MIL-DTL-55116 solutions include an extensive array of heritage proven, standard plugs and custom capabilities:

- Cable-mount solutions in QPL, NSA, lightweight, and right-angle configurations.
- Panel-mount plugs with rear threads or mounting flanges.
- Application-specific backshells that support environmental sealing and EMI/RFI shielding.
- Custom cable assemblies and wiring harnesses.



In-Line Type	Model Numbers	# Contacts	Terminations	Specifications And National Stock Numbers (NSNs)
U-229 Wire Strain Reliefs	M55116/1-X	5	Crimped	NSN 5935-01-373-6341 = M55116/1-3
	M55116/2-X	6	Crimped	NSN 5935-01-465-3101 = M55116/2-3
	M55116/3-X	5	Solder Cups	NSN 5935-01-439-9280 = M55116/3-2
				NSN 5935-01-482-9006 = M55116/3-4
U-182 Molded Strain Reliefs	M55116/4-X	6	Solder Cups	NSN 5935-01-499-4241 = M55116/4-2
				NSN 5935-01-412-4102 = M55116/4-3
				NSN 5935-01-383-4173 = M55116/4-4
				NSN 5935-01-383-4851 = M55116/4-5
NSA	M55116/5-X	5	Crimped	NSN 5935-00-462-3075 = M55116/5-1
	M55116/6-X	6	Crimped	n/a
	M55116/7-X	5	Solder Cups	n/a
	M55116/8-X	6	Solder Cups	n/a
NSA	ON241774-1	6	Solder Cups	DoD Specification ON241774-1
	ON241774-2	6	Crimped	DoD Specification ON241774-2



“X” Cable Designation	Maximum Cable Outside Diameter
0	No Strain Relief
1	0.165”
2	0.228”
3	0.250”
4	0.290”
5	0.320”

CI529RA-1 and CI629RA-1 in-line plugs support right-angle cable mounting.

MIL-DTL-55116 QPL, NSA, and specialized plugs

*Lightweight Plugs are Approximately 50% Lighter than QPL Solutions**

In-Line Plug Configurations	Lightweight Plug Part Number	Cable Sizes	Shell Material	*Weight (Ounces)
Five Contacts Overmolded Strain Reliefs	GC217-1-4	1/4"	Stainless Steel	1.20
	GC217-3-16	3/16"	Stainless Steel	1.20
	GC217A-1-4	1/4"	Aluminum	0.81
	GC217A-3-16	3/16"	Aluminum	0.81
Six Contacts Overmolded Strain Reliefs	GC617-1-4	1/4"	Stainless Steel	1.19
	GC617-3-16	3/16"	Stainless Steel	1.19
	GC617A-1-4	1/4"	Aluminum	0.80
	GC617A-3-16	3/16"	Aluminum	0.80

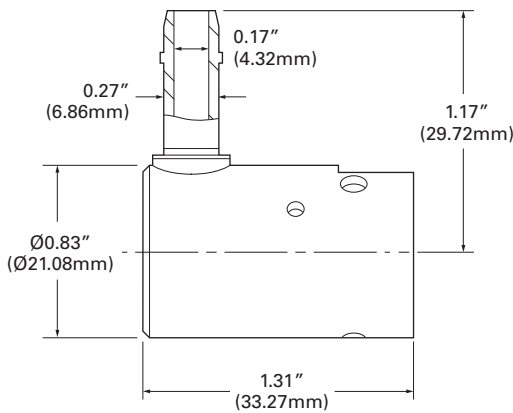
* Approximate weight of QPL solutions is two ounces.

Type	Part Number	Contacts
In-line, 90° Cable Entry	CI529RA-1	5
	CI629RA-1	6

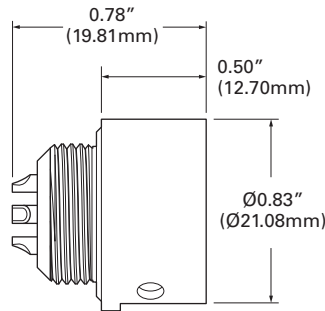
The products listed above utilize stainless-steel shells, rigid contacts, and solder cup terminations.

Type	Part Number	Contacts	Mounting
Panel Mount	GC429	5	Rear Thread
	GC529	6	Rear Thread
	GC629	5	Square Flange
	GC729	6	Square Flange

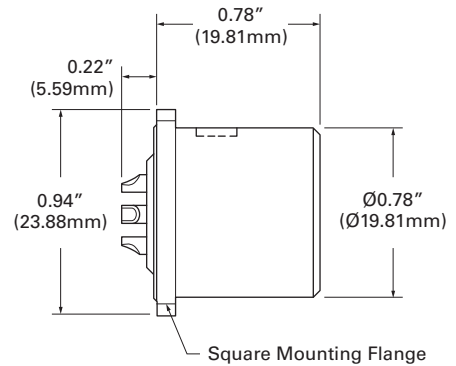
The products listed above utilize stainless-steel shells, rigid contacts, and solder cup terminations.



CI529RA-1 and CI629RA-1



GC429 and GC529



GC629 and GC729

MIL-DTL-55116 QPL, NSA, and filtered receptacles

Eaton's MIL-DTL-55116 solutions include an extensive array of heritage proven standard receptacles and custom capabilities:

- Cable-mount M55116/11 to /14
- Panel-mount M55116/9 and /10
- NSA connectors, ON241775-1 to -5
- Application optimized filtered solutions
- Custom backshells, cable assemblies, and wiring harnesses.



QPL In-Line Receptacles*

Type	Model Numbers	# Contacts	Terminations	NSNs Cross Referenced By Model Numbers
	M55116/11-X	5	Crimped	n/a
U-228	M55116/13-X	5	Solder Cups	5935-00-929-7082 = M55116/13-3
Wire Strain Reliefs	M55116/12-X	6	Crimped	5935-01-552-4361 = M55116/12-3
	M55116/14-X	6	Solder Cups	5935-01-512-5620 = M55116/14-3 5935-01-383-6960 = M55116/14-4


*"X" values designate strain-relief options to accommodate the cable sizes listed in the table below. The part numbers listed above are configured with spring-loaded contacts and stainless-steel shells.

Panel Mount Receptacles

Type	Model Numbers	# Contacts	Terminations	Specifications and National Stock Numbers (NSNs)
U-183	M55116/9-0	5	Solder Cups	NSN 5935-01-304-6787
	M55116/10-0	6	Solder Cups	NSN 5935-01-356-8083
NSA	ON241775-1	6	Solder Cups	DoD Specification ON241775-1
	ON241775-2	6	Solder Pins	DoD Specification ON241775-2
	ON241775-3	6	Solder Cups	DoD Specification ON241775-3
	ON241775-4	6	Solder Pins	DoD Specification ON241775-4
	ON241775-5	6	Solder Cups	DoD Specification ON241775-5

"X" Cable Designation	Maximum Cable Outside Diameter
0	No Strain Relief
1	0.165"
2	0.228"
3	0.250"
4	0.290"
5	0.320"

The part numbers listed above are configured with spring-loaded contacts and stainless-steel shells. U-183 receptacles utilize the T-1104-03 spanner wrench.



Filtered Solutions

MIL-DTL-55116-style filtered receptacles can be optimized for any frequency, voltage, TVS, and impedance requirements.

MIL-DTL-55116 specialized receptacles

Extended Body Receptacles Provide up to 2¼" Additional Bulkhead Penetration



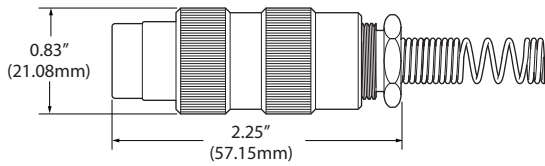
Double-Ended Receptacles are Ideal Feedthrough Solutions



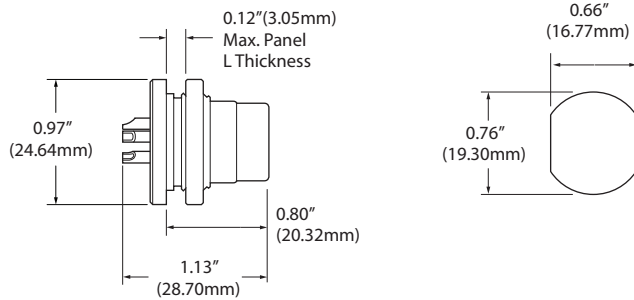
Mounting	Type*	Model Numbers	# Contacts	Contact Type	Terminations
Panel	Lightweight Rear Mount	GC183S	5	Spring Loaded	Solder Cups
Panel	Double-Ended Feedthrough	GC683S	6	Spring Loaded	Solder Cups
Panel	Double-Ended Feedthrough	GC283FT	6	Spring Loaded	Solder Cups
Bulkhead	Extended Body**	CI10654871	6	Spring Loaded	Solder Cups

* The products listed above feature stainless-steel shells.

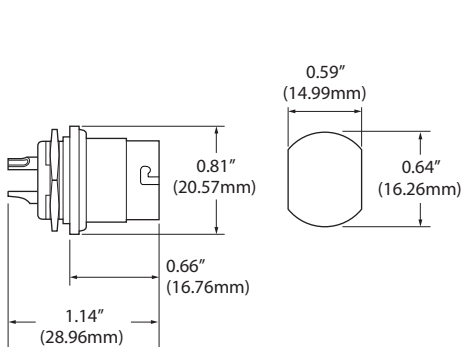
** Extended-body-receptacle backshells are constructed from nickel-plated brass.



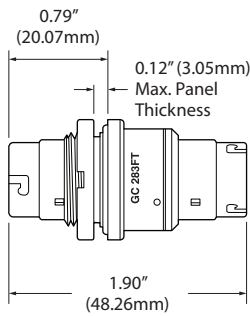
U-228 Style, In-Line Receptacle



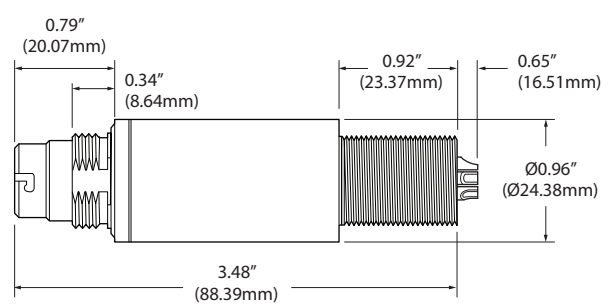
U-183 Style, Panel Mount



GC183S and GC683S
Weight = 0.72 ounces



GC283FT Double Ended Feedthrough



CI10654871 Extended Body Receptacle

MIL-DTL-55116 high-density solutions

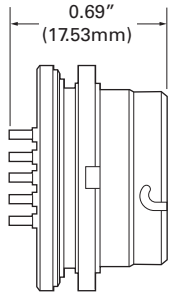
These high-contact-density solutions support mixed audio, signal, and data applications that require more contacts than provided by MIL-DTL-55116 QPL connectors.

- Gold-over-nickel contacts are rated for 0.23 amps and 3000 mate and demate cycles.
- 500Vrms dielectric withstand voltage.
- Passivated, stainless-steel shells.
- Solutions include EMI/RFI filtered receptacles.
- Custom capabilities include cable assemblies and wiring harnesses.

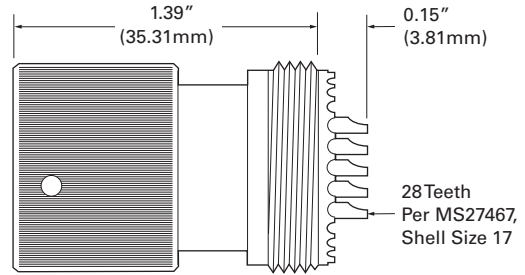


# Contacts	Model Numbers	Type	Mounting	Termination	Configuration
19	CIA3245089-3	Plug	Cable	Solder Cups	Compatible with Size 17 Backshells
19	GCA3245088-3	Receptacle	Panel	Solder Pins	Front Mount
27	GCJ69-0016-001	Plug	Cable	Solder Cups	Compatible with Size 17 Backshells
27	GCJ69-0014-001	Receptacle	Panel	Solder Pins	EMI/RFI "T" Filter

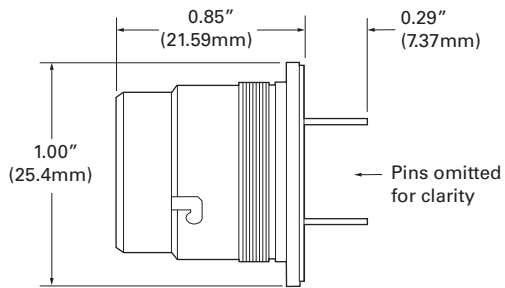
MIL-DTL-55116 high-density solutions



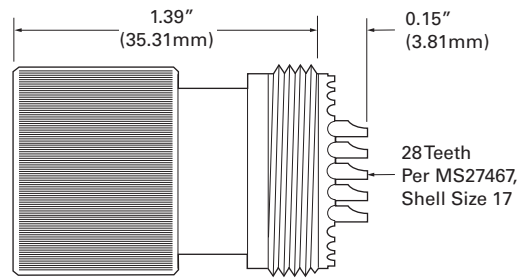
19-Contact GCA3245088-3



19-Contact CIA3245089-3



27-Contact GCI69-0014-001



27-Contact GCJ69-0016-001