

AMETEK SCP™

AMETEK® ENGINEERED INTERCONNECT AND PACKAGING

Where Quality and High Performance Run Deep

Coax Connector and Cable Assembly Series

AMETEK SCP's line of coaxial connectors offer exceptional performance for applications ranging from sea surface to deep ocean. Robust and reliable, the glass-to-metal sealed receptacles provide panel or bulkhead protection not available in IP-67 class connectors, at a fairly modest premium. AMETEK SCP offers these connectors in an assortment of standard styles and cabling options, and can quickly evaluate custom components and applications if required.

General Characteristic

Characteristic Impedance	50 Ohms
Insulation Resistance	Minimum of 5,000 M Ω @500VDC
Frequency Range	Up to 3 GHz (varies with cable selection)
Dielectric Withstand Voltage	1,000 V
Pressure Rating	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.
Material	316/316L Stainless Steel

Basic Connector Styles



CPA2155
In-line Overmolded Plug



CRA2154
Glass Sealed Bulkhead Receptacle



CPA2902
Right Angle Overmolded Plug



CRA2963
In-line Overmolded Receptacle

AMETEK SCP
E: scp.info@ametek.com | **T:** 401 596 6658
www.ametekscp.com

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Form Code, Cable Type, and Connector Tables

Table 1: Form Codes	
X=	**Form**
1	One Molded End
2	Two Molded End for cable types A - C, E-T
10	Connector with 75-981-1 Coax Contact (for cable types A thru R, G)
11	Connector with 201143-5 Coax Contact (for cable types D, F, G, H)
2R	Two Molded Ends, 1 ea. Straight, 1 ea. 90 Degrees (CPA2155 only)

Table 3: Length	
Z=	**Length in feet**

Table 4: Free End Connector Type**	
W=	**Connector**
1	SMA Plug
2	BNC Plug

Order as: BASEPN-X-Y-Z-W

* - Alternate cable types can be evaluated for connector compatibility upon request.

** - Alternate connector types and styles can be evaluated for cable compatibility upon request.

Table 2: Form Codes*		
Y=	**Cable Type**	**SPEC/MFR**
O	No Cable	N/A
A	RG-58	MIL-DTL-17-28
B	CN-4	Rochester Cable
C	1603-LC	IW Microwave
D	1603-LC40	IW Microwave
E	LMR-195	Times Microwave
F	RG-174	MIL-DTL-17/119
G	RG-142	MIL-DTL-17/60
H	RG-316	MIL-C-17/113
I	RG-180	MIL-C-17/95
J	LMR-195-UF	Times Microwave
K	FM052416SA-1	Falmat (RG-8 W/Kelvar & PU Jacket)
L	SFL402-105FLEX	Harbour Industries
M	LMR-240	Times Microwave
NB NR NG	FM101305SA1(Blue) FM101305SA1-2(Red) FM101305SA1-5(Green)	Falmat RG316 W/PU Jacket
O	MF-141	HUBER+SUHNER
P	FM061-496-2B-0	Falmat RG58 -PU Jacket
R	FM092116SF-1	Falmat RG400 -PU Jacket
S	LMR-195-DB	Times Microwave
T	PCX50	IW Microwave

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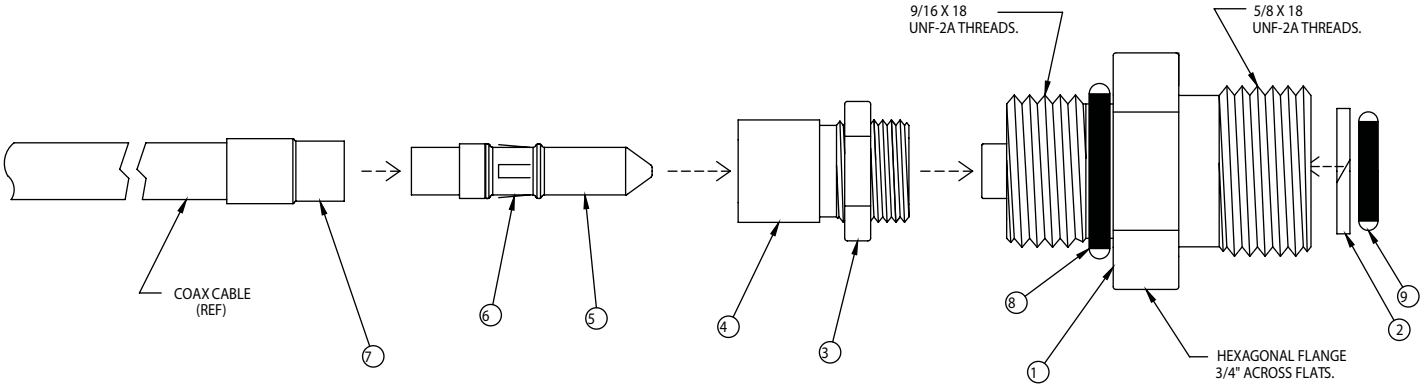


Bulkhead Receptacle CRA2154

Bulkhead Receptacle CRA2154 was developed for military and commercial in response to the need for a highly reliable underwater coax connection. Its glass-to-metal seal readily withstands face pressures qualified to 10,000 psi. CRA2154 is available in kit form, as well as pre-assembled to any coax cable selected.

CRA2154 mates to any CPA2155 or CPA2902 connector.
The accessory seal ing plug for CRA2154 is SP2417.

Order as P/N: CRA2154-X-Y-Z



X = Form Code
See Table 1

Y = Cable Code
See Table 2

Z = Cable Length In Feet
Use "0" If Ordering As Kit

Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
50 Ohms	5000 M W @500VDC	DC to 3 GHz (depends on cable selection)	1000V (RMS) 60 Hz	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.	316/316L Stainless Steel

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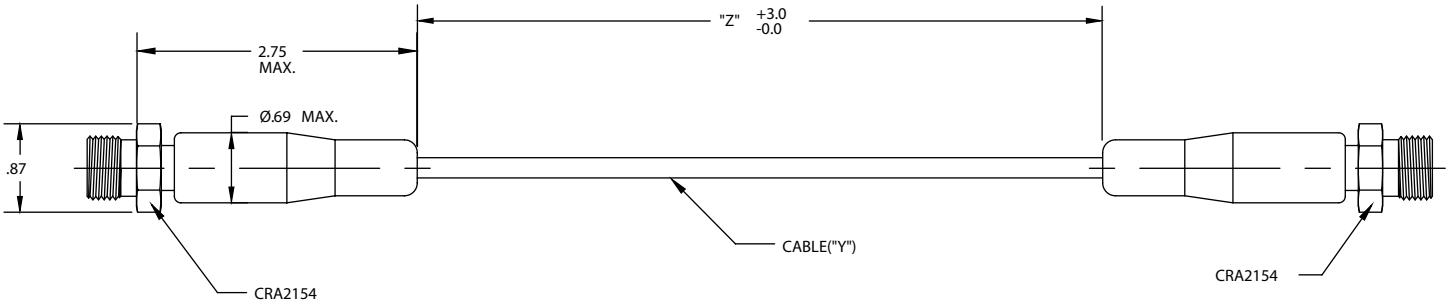
In-line Overmold Receptacle CRA2963



CRA2963 was developed to enable an in-line cable connection to be es - tablished for use in a pressure environment. Like the bulkhead receptacle, CRA2963 is glass-to-metal sealed, and can withstand face up to 10,000 psi. Utilizing an in-line receptacle is superior to feedthru methods which require the introduction of an extra connector interface. Having a single connector interface reduces insertion loss, improves RF characteristics, and enhances overall system reliability.

CRA2963 mates to both CPA2155 and CPA2902. The accessory sealing plug is SP2417.

Order as P/N: CRA2963-X-Y-Z



X = Form Code
See Table 1

Y = Cable Code
See Table 2

Z = Cable Length In Feet
Use "0" If Ordering As Kit

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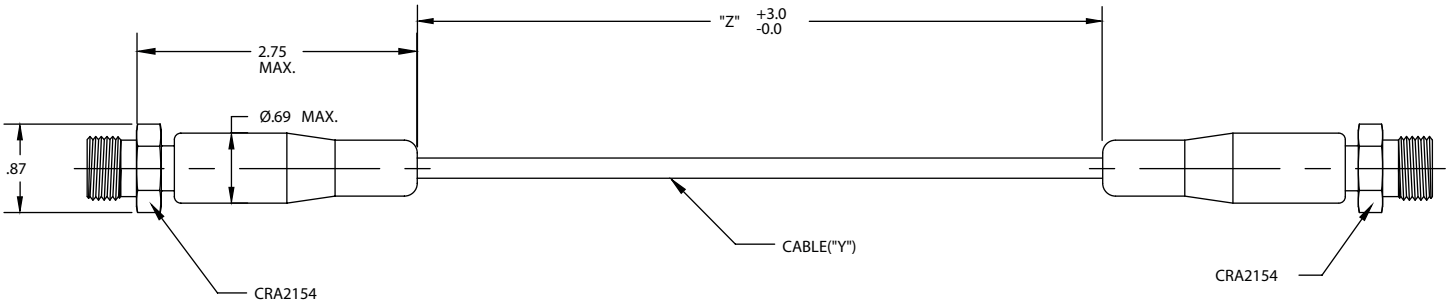
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CRA2963 mates to both CPA2155 and CPA2902. The accessory sealing plug is SP2417.

Order as P/N: CRA2963-X-Y-Z



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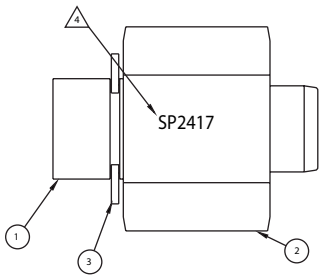
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Accessories

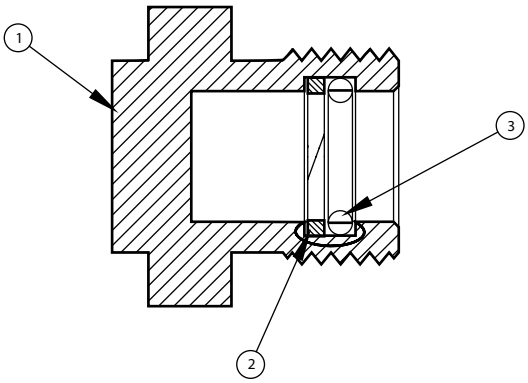
Dummy Sealing Plug - P/N SP2417

This sealing plug mates to any standard coax receptacle. Mated interface withstands pressures of up to 10,000 psi.



Dummy Sealing Receptacle - P/N CSA2432

This sealing receptacle mates to any standard coax plug. Mated interface withstands pressures of up to 10,000 psi.



Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
50 Ohms	5000 M W @500VDC	DC to 3 GHz (depends on cable selection)	1000V (RMS) @ 60 Hz	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.	316/316L Stainless Steel

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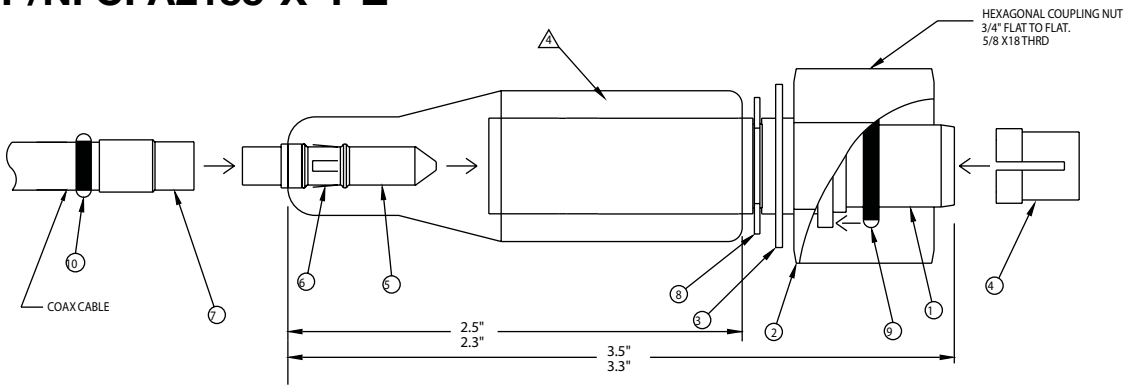


In-line Overmold Plug CPA2155

On-line Overmold Plug CPA2155 was developed for military and commercial customers in response to the need for a highly robust and reliable underwater coax connection. When mated to any standard coax receptacle, the mated interface withstands pressures up to 10, 000 psi. CPA2155 is available in kit form, or as an overmolded cable assembly with a host of different form and cable options.

CPA2155 mates to receptacles CRA2154 and CRA2963. The accessory seal - ing receptacle is CSA2432.

Order as P/N: CPA2155-X-Y-Z



X = Form Code
See Table 1

Y = Cable Code
See Table 2

Z = Cable Length In Feet
Use "0" If Ordering As Kit

Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
50 Ohms	5000 M W @500VDC	DC to 3 GHz (depends on cable selection)	1000V (RMS) 60 Hz	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.	316/316L Stainless Steel

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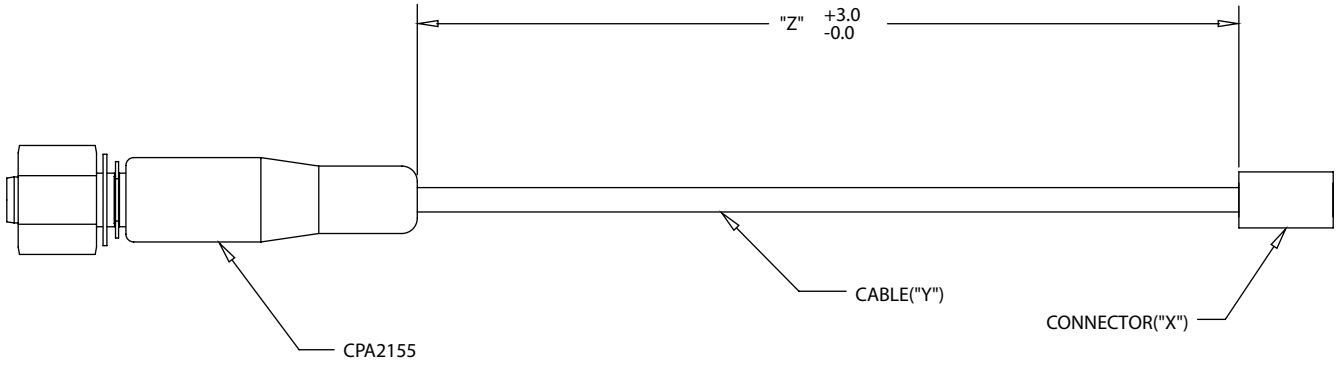


In-line Plug to Standard Connector Cable Assembly CPA2438

CPA2438 enables a standard CPA2155 coax plug to be cabled to a number of standard coax interfaces, such as a BNC or SMA type. Aside from the standard free-end connector options, any standard caox interface can be evaluated for use in such a cable assembly.

The accessory sealing receptacle is CSA2432.

Order as P/N: CPA2438-W-Y-Z



W = Free End Connector
See Table 3

Y = Cable Code
See Table 2

Z = Cable Length In Feet

Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
50 Ohms	5000 M W @500VDC	DC to 3 GHz (depends on cable selection)	1000V (RMS) 60 Hz	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.	316/316L Stainless Steel

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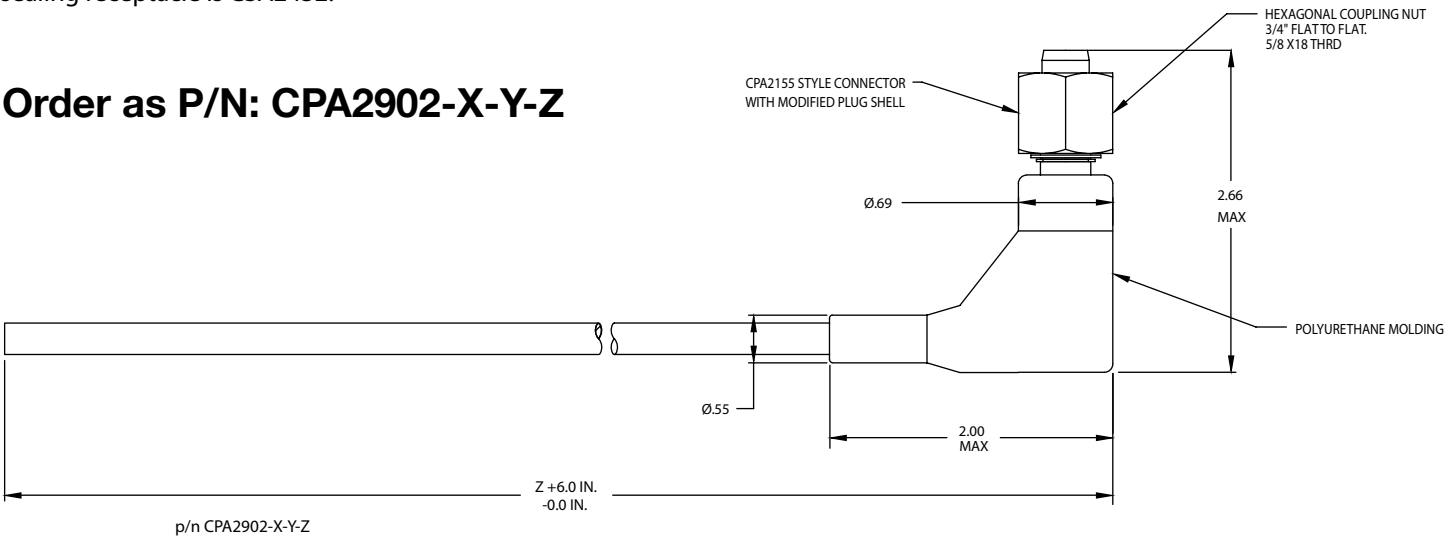


Right Angle Plug P/N CPA2902

CPA2902 is the right angle version of AMETEK SCP's overmolded coax plug. For instances where space is tight, or cable management is difficult, the added option of using a right angle connector can be invaluable. CPA2902 is available in kit form, and as an overmolded cable assembly with a host of different form and cable options.

CPA2902 mates to receptacles CRA2154 and CRA2963. The accessory sealing receptacle is CSA2432.

Order as P/N: CPA2902-X-Y-Z



X = Form Code
See Table 1

Y = Cable Code
See Table 2

Z = Cable Length In Feet
Use "0" If Ordering As Kit

Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
50 Ohms	5000 M W @500VDC	DC to 3 GHz (depends on cable selection)	1000V (RMS) 60 Hz	Qualified to 10,000 psi, quality conformance testing done to 2000 psi.	316/316L Stainless Steel

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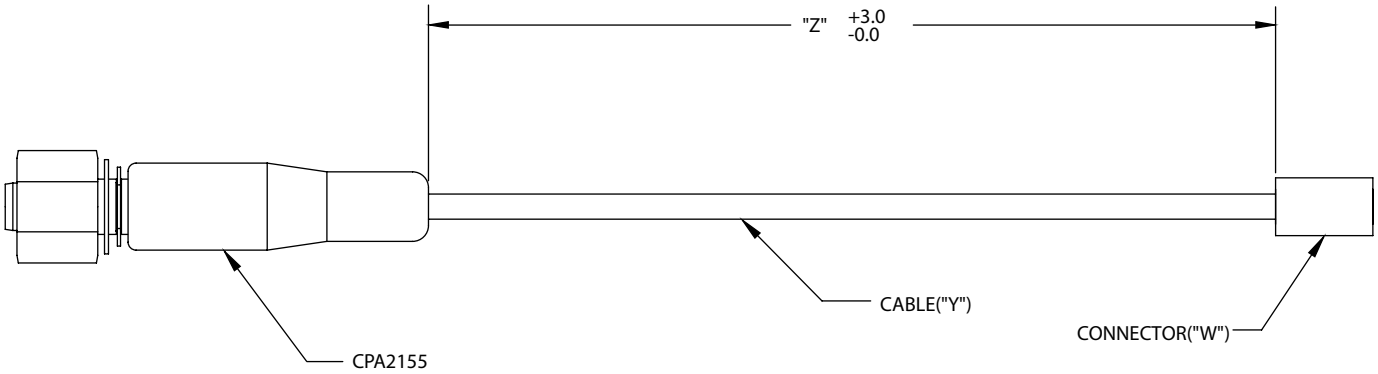


In-line Plug to Standard Connector Cable Assembly CPA2438

CPA2438 enables a standard CPA2155 coax plug to be cabled to a number of standard coax interfaces, such as a BNC or SMA type. Aside from the standard free-end connector options, any standard coax interface can be evaluated for use in such a cable assembly.

The accessory sealing receptacle is CSA2432.

Order as P/N: CPA2438-W-Y-Z



W = Free End Connector
See Table 3

Y = Cable Code
See Table 2

Z = Cable Length In Feet

Characteristic Impedance	Insulation Resistance	Frequency Range	Dielectric Withstand Voltage	Pressure Rating	Materials
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