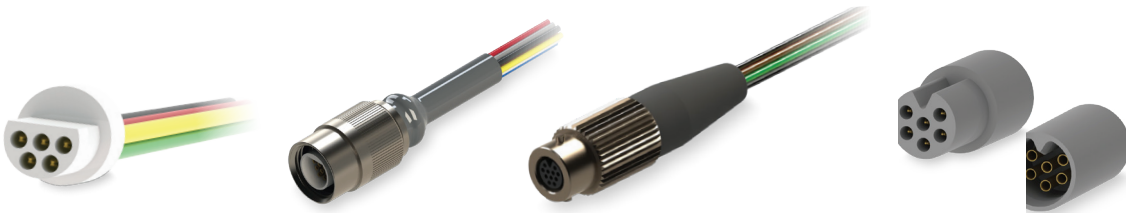




MICRO 360® & NANO 360®

INTERCONNECT SYSTEMS CATALOG



Omnetics Connector Corporation is a privately held connector design and manufacturing company with over 30 years of experience. Omnetics manufactures and designs compact ultra lightweight Micro-miniature, Nano-miniature, high temperature, and Hybrid connectors, wire harnesses, and cable assembly solutions for the toughest, smallest, and highest speed applications. These rugged miniature and ultra-miniature Mil-Spec based Circular and Hybrid Circular connector solutions are available in a variety of sizes and layouts featuring ratcheting, threaded, twist-lock, and breakaway coupling configurations. Omnetics' rugged Nano-miniature and Micro-miniature circular connectors are available with EMI shielding and IP68 sealing, and aid in the interconnect and SWaP design requirements of your battlefield communications, computing, and other high performance devices. Omnetics connectors are optimized for high speed compact circuitry in mission critical harsh environment applications.

With a rich history of designing and manufacturing high quality Micro and Nano connectors, our interconnect solutions are used in a variety of challenging application environments including Military, Aerospace, Medical, Petroleum, Test and Measurement, Robotics, and Research.

In addition to maintaining a large off-the-shelf (COTs) inventory,

Omnetics offers a wide range of standard designs and specializes in application-specific high reliability miniature and ultra-miniature interconnect solutions. The Omnetics product portfolio includes:

- Micro and Nano Circular connectors
- Micro and Nano Strip connectors
- Polarized Nano (PZN) connectors
- MIL-DTL-83513 Micro-D connectors
- Commercial Micro-D connectors
- Latching Micro-D connectors
- MIL-DTL-32139 Nano-D connectors
- Commercial Nano-D / Bi-Lobe connectors
- Latching Nano-D / Bi-Lobe connectors
- Hybrid connector configurations
- Cable Assemblies

Omnetics products are designed and assembled in Minneapolis, MN, U.S. The facility includes in-house automatic machining and over-molding equipment. Omnetics has a worldwide distribution and sales team that are experienced in supporting both standard and customized designs for connector miniaturization to form, fit, and function.

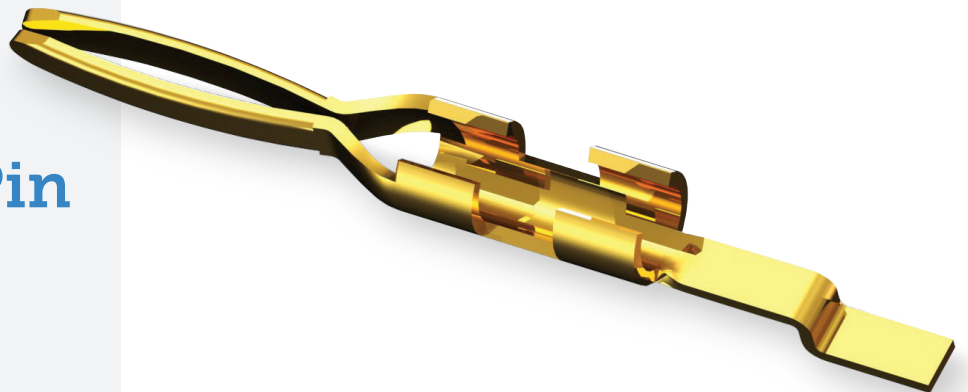
Omnetics Connector Corporation

8840 Evergreen Blvd
Minneapolis, MN 55433
www.omnetics.com
sales@omnetics.com
Tel (763) 572 0656
Toll Free (800) 343 0025



Omnetics' Flex Pin

Designed for
High Shock and
Vibration.



Omnetics' Flex Pin contact is ideal for withstanding high shock and vibration situations. It meets and exceeds standards for MIL-DTL-83513 for Micro (0.050 in. pitch) connectors and the MIL-DTL-32139 for Nano (0.025 in. pitch) connectors. This simple, one-piece design is stamped from ASTM B194 Beryllium Copper.

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Specification Sheets

Space Level Screening

Per EEE-INST-002

Ordering Steps

Step 1 - Choose a suitable Micro or Nano connector

Step 2 - Choose a level of Space Screening

Level 1 - Mission Critical (Highest Reliability)

Level 2 - High Reliability

Level 3 - Standard Reliability

Step 3 - Select any added outgassing processing needed.

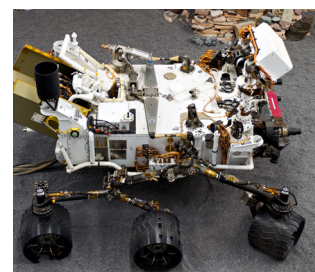
Step 4 - Specify chosen ORDERING CODES from table below.

These codes should be used as separate line items on all quote Requests and Purchase Orders as required.



Ordering Codes (quoted as separate line items)

Screening Level	Special Screening Only	Processing for Outgassing
Level 1 - Mission Critical	SPT1	All standard materials exhibit less than 1.0% TML without additional processing. Contact service for special requirements.
Level 2 - High Reliability	SPT2	
Level 3 - Standard Reliability	Standard	



Micro (.050" center)

Nano (.025" center)



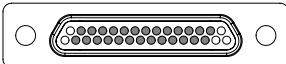
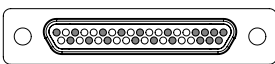
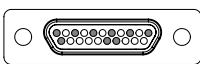
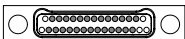
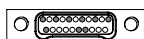
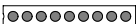
Inspection/Test	Micro (.050" center)		Nano (.025" center)	
	Level 1 Com'l/SCD	Level 2 Com'l/SCD	Level 1 Com'l/SCD	Level 2 Com'l/SCD
Visual	100%	100%	100%	100%
Mechanical	2 (0)	2 (0)	2 (0)	2 (0)
Voltage Rating (DWV)	100%	2 (0)	100%	2 (0)
Insulation Resistance	2 (0)	2 (0)	2 (0)	2 (0)
Temperature Cycling	2 (0)	2 (0)	2 (0)	-
Low Level Contact Resistance	2 (0)	2 (0)	2 (0)	2 (0)
Mating/Unmating Force	2 (0)	-	2 (0)	-
Solderability/Resistance to heat (SMT & Thru-Hole only)	2 (0)	-	2 (0)	-

Specification Sheets

The Omnetics High-Speed Protocol Guide, based on extensive internal research, provides connector options for various high-speed signaling protocols. The high-speed signaling specifications for each protocol were scrutinized extensively to provide an optimal pinout and ensure that the connectors meet or exceed the performance requirements.

When necessary, measurements were taken on the Omnetics connectors and directly compared to commercially available connectors. In these cases, Omnetics connectors outperformed the commercial connectors, yielding lower loss values across the critical frequencies.

The pinouts for each available configuration are provided in the table below.

	Camera Link	Ethernet	HDMI	USB 3.0
Micro-D				
Nano-D				
Micro Strip				
Nano Strip				
Plastic Micro Circular				
Metal Micro Circular				
Plastic Nano Circular				
Metal Nano Circular				

MICRO 360® Plastic

Micro Circular Discrete Wire/Cable (Type WD/WC)



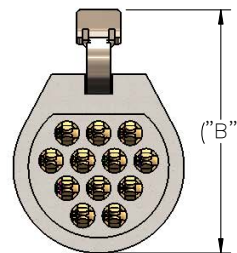
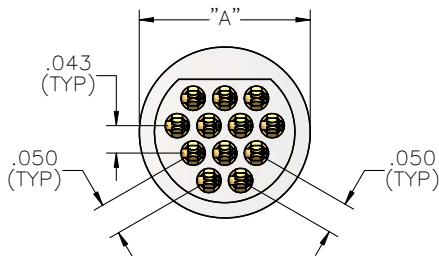
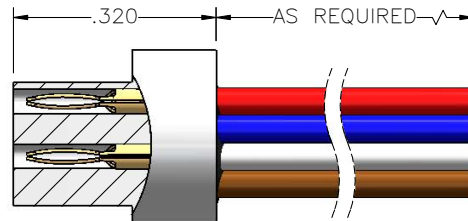
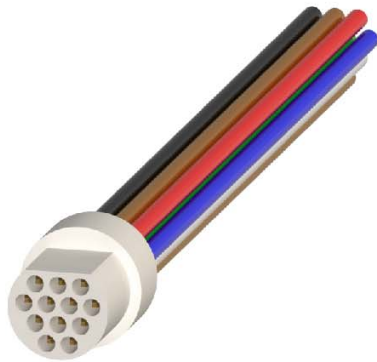
Electrical-Mechanical Specifications

- Operating Temperature: _____ -55°C to 125°C (200°C w/ High Temp Epoxy)
- Dielectric Withstand Voltage: _____ 600 VAC RMS @sea level
- Contact Resistance: _____ 26 milliohms(65 mV) Max @2.5 Amps
- Current Rating: _____ 3 Amps per contact
- Durability: _____ >2000 Mating Cycles min
- Insulation Resistance: _____ 5000 megohms @ 500 VDC
- Shock: _____ 50 g's with no discontinuities > 1 microsecond
- Vibration: _____ 20 g's with no discontinuities > 1 microsecond
- Thermal Vacuum Outgassing (Space Class): _____ 1.0% max TML, 0.03% max CVCM
- Mating/Unmating Force: _____ 3 oz (85 g) typical per contact

Material Specifications

- Contact: _____ Copper Alloy per MIL-DTL-83513
- Contact Finish: _____ Gold per ASTM B488, Type II, Class 1.27, Code C
Over Nickel Underplate
- Insulator: _____ Thermoplastic per MIL-M-24519
- Wire: _____ 26 AWG (7-34) PTFE, color coded

Plastic - Pin - Wired MCP-WD

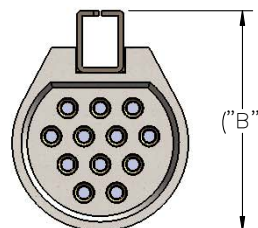
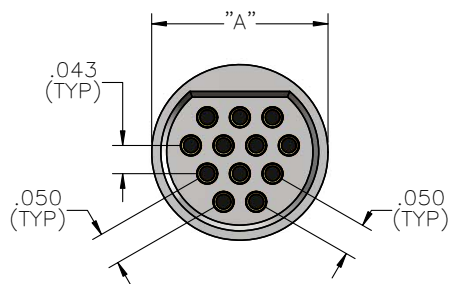
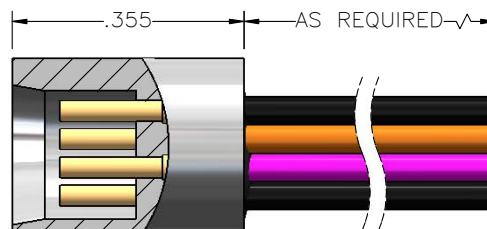


Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22002-001	5	0.220	5.59
A22006-001	12	0.270	6.86
A22034-001	16	0.325	8.26
A22008-001	27	0.395	10.03
A22388-001	39	0.455	11.56

LATCHING OPTION

Part #	Contacts	English (IN)	Metric (MM)
		B	B
A22021-001	5	0.310	7.87
A22064-001	7	0.340	8.64
A22023-001	12	0.380	9.65
A22040-001	16	0.410	10.41
A22025-001	27	0.480	12.19

Plastic - Socket - Wired MCS-WD

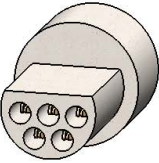
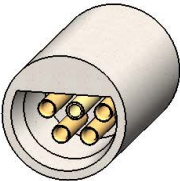
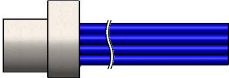
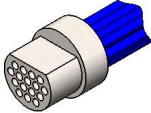
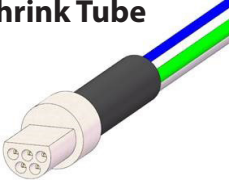


		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22003-001	5	0.220	5.59
A22007-001	12	0.270	6.86
A22035-001	16	0.325	8.26
A22009-001	27	0.395	10.03
A22396-001	39	0.455	11.56

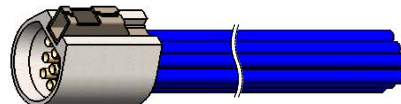
LATCHING OPTION

		English (IN)	Metric (MM)
Part #	Contacts	B	B
A22020-001	5	0.260	6.60
A22065-001	7	0.300	7.62
A22022-001	12	0.340	8.64
A22041-001	16	0.370	9.40
A22024-001	27	0.440	11.18

MICRO CIRCULAR DISCRETE WIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Options
MC Male (P - Pin)  Female (S - Socket) 	5	WD: Discrete Wire   WC: Cable  	C Color Coded  LT Latch  CLIP Locking Clip  ST: Inline w/ Shrink Tube 
	7		OM Overmold (Contact Omnetics for Overmold Information & Availability) 
	12		RH RoHS COMPLIANT 
	16		
	27		
	39		

EXAMPLE:
MCS-12-WD-10.0-LT



MICRO 360® Plastic

Micro Circular Solder Cup (Type SS)



Electrical-Mechanical Specifications

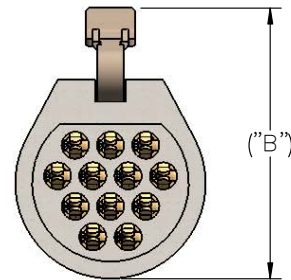
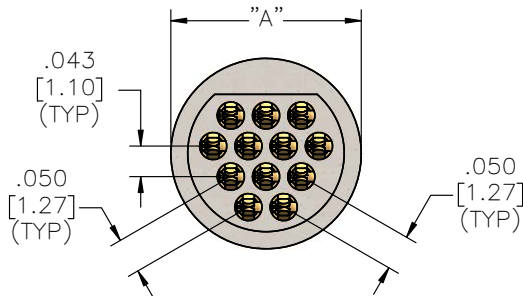
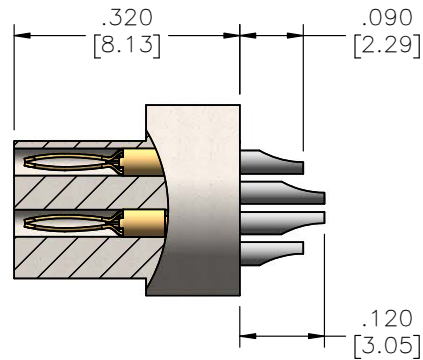
■ Operating Temperature:	-55°C to 125°C (200°C w/ High Temp Epoxy)
■ Dielectric Withstand Voltage:	600 VAC RMS @sea level
■ Contact Resistance:	26 milliohms(65 mV) Max @2.5 Amps
■ Current Rating:	3 Amps per contact
■ Durability:	>2000 Mating Cycles min
■ Insulation Resistance:	5000 megohms @ 500 VDC
■ Shock:	50 g's with no discontinuities > 1 microsecond
■ Vibration:	20 g's with no discontinuities > 1 microsecond
■ Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% max CVCM
■ Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

■ Contact:	Copper Alloy per MIL-DTL-83513
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519

Plastic - Pin - Solder Cup

MCP-SS

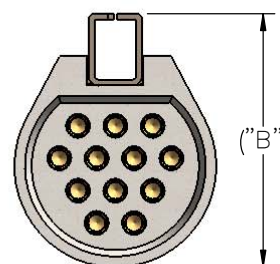
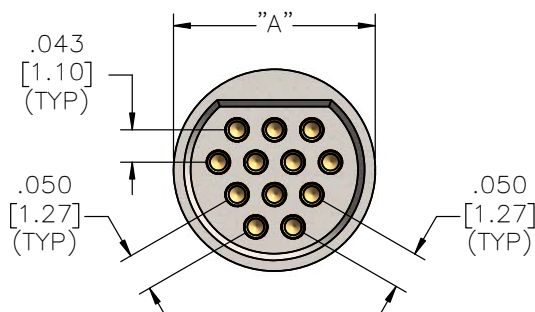
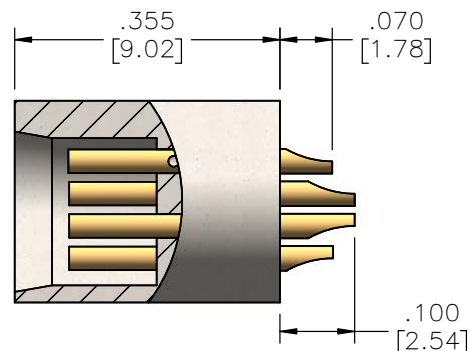


Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22000-001	5	0.220	5.59
A22004-001	12	0.270	6.86
A22032-001	16	0.325	8.26
A22012-001	27	0.395	10.03
A22394-001	39	0.445	11.30

LATCHING OPTION

Part #	Contacts	English (IN)	Metric (MM)
		B	B
A22027-001	5	0.310	7.87
A22066-001	7	0.340	8.64
A22029-001	12	0.380	9.65
A22038-001	16	0.410	10.41
A22031-001	27	0.480	12.19

Plastic - Socket - Solder Cup MCS-SS

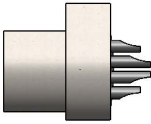
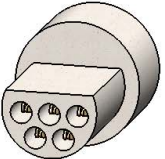
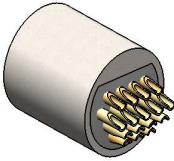
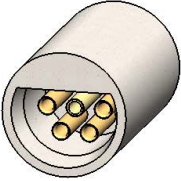
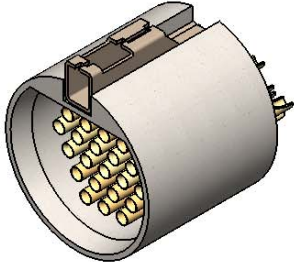


Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22001-001	5	0.220	5.59
A22005-001	12	0.270	6.86
A22033-001	16	0.325	8.26
A22013-001	27	0.395	10.03
A22402-001	39	0.445	11.30

LATCHING OPTION

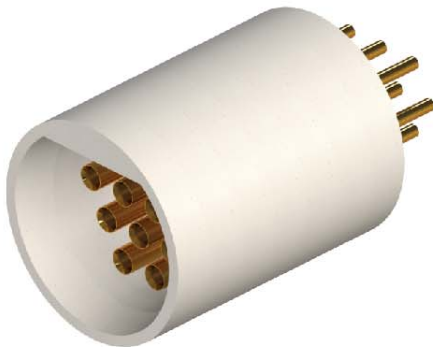
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A22026-001	5	0.260	6.60
A22067-001	7	0.300	7.62
A22028-001	12	0.340	8.64
A22039-001	16	0.370	9.40
A22031-001	27	0.440	11.18

MICRO CIRCULAR SOLDER CUP (TYPE SS)

Series	# of Contacts	Termination Type	Options
MC	5	SS: Solder Cup	LT
	7		Latch
Male (P - Pin)	12		
	16		
	27		CLIP
	39		Locking Clip
			
Female (S - Socket)			RH
			RoHS COMPLIANT
			
			
EXAMPLE: MCS-27-SS-LT			

MICRO 360® Plastic

Micro Circular Straight Thru-Hole Tail (Type DD)



Electrical-Mechanical Specifications

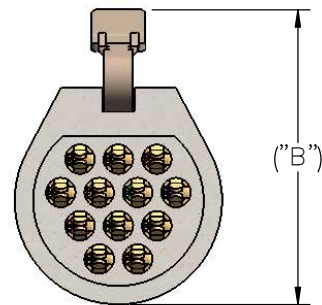
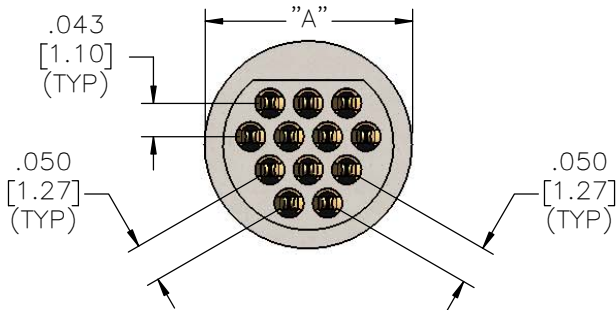
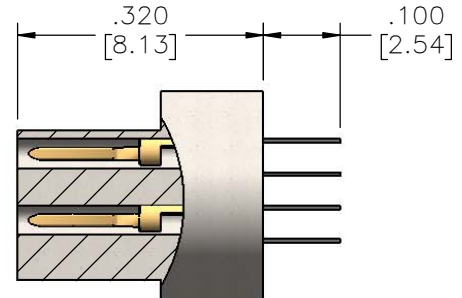
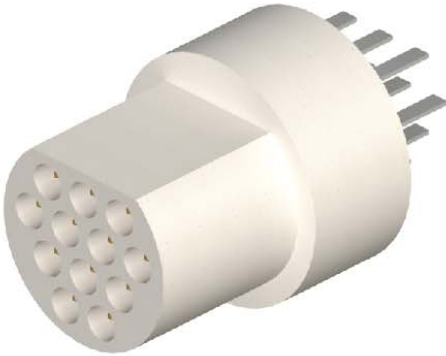
■ Operating Temperature:	-55°C to 125°C (200°C w/ High Temp Epoxy)
■ Dielectric Withstand Voltage:	600 VAC RMS @sea level
■ Contact Resistance:	26 milliohms(65 mV) Max @2.5 Amps
■ Current Rating:	3 Amps per contact
■ Durability:	>2000 Mating Cycles min
■ Insulation Resistance:	5000 megohms @ 500 VDC
■ Shock:	50 g's with no discontinuities > 1 microsecond
■ Vibration:	20 g's with no discontinuities > 1 microsecond
■ Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% max CVCM
■ Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

■ Contact:	Copper Alloy per MIL-DTL-83513
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519

Plastic - Pin - Straight Tail

MCP-DD

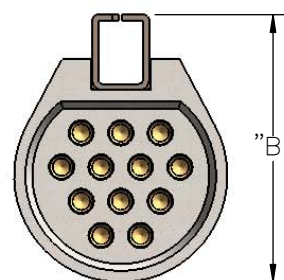
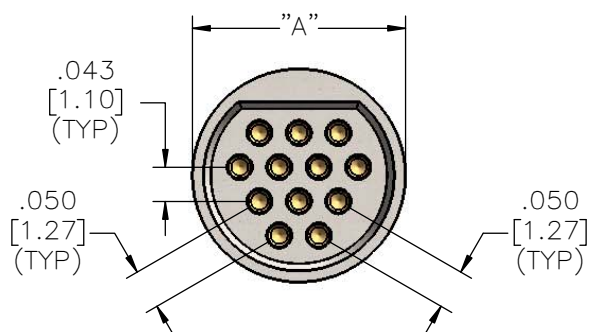
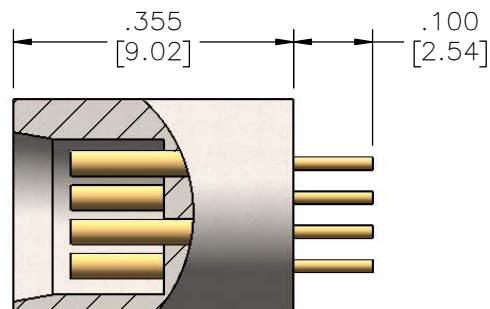
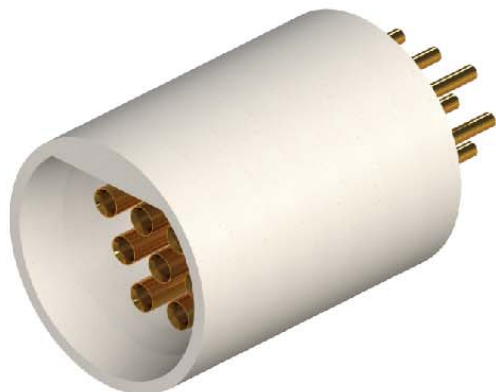


Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22015-001	5	0.220	5.59
A22017-001	12	0.270	6.86
A22036-001	16	0.325	8.26
A22019-001	27	0.395	10.03
A22392-001	39	0.445	11.30

LATCHING OPTION

Part #	Contacts	English (IN)	Metric (MM)
		B	B
A22044-001	5	0.310	7.87
A22068-001	7	0.340	8.64
A22046-001	12	0.380	9.65
A22050-001	16	0.410	10.41
A22048-001	27	0.480	12.19

Plastic - Socket - Straight Tail MCS-DD

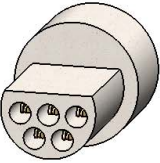
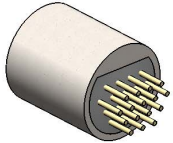
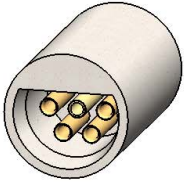
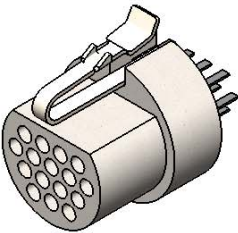


Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22014-001	5	0.220	5.59
A22016-001	12	0.270	6.86
A22037-001	16	0.325	8.26
A22018-001	27	0.395	10.03
A22400-001	39	0.445	11.30

LATCHING OPTION

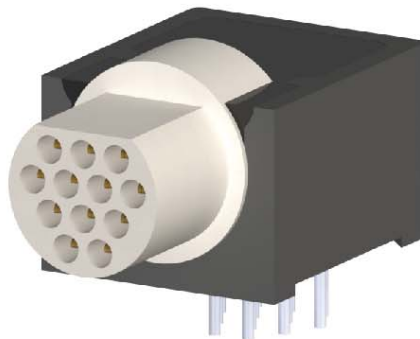
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A22045-001	5	0.310	7.87
A22069-001	7	0.340	8.64
A22047-001	12	0.380	9.65
A22051-001	16	0.410	10.41
A22049-001	27	0.480	12.19

MICRO CIRCULAR STRAIGHT THRU-HOLE TAIL (TYPE DD)

Series	# of Contacts	Termination Type	Options
MC	5	DD: Straight Thru-Hole	LT
	7		Latch
Male (P - Pin)	12		
	16		
	27		
	39		
			RH
Female (S - Socket)			RoHS COMPLIANT
			
EXAMPLE: MCP-16-DD-LT			

MICRO 360® Plastic

Micro Circular Right Angle Thru-Hole (Type RA)



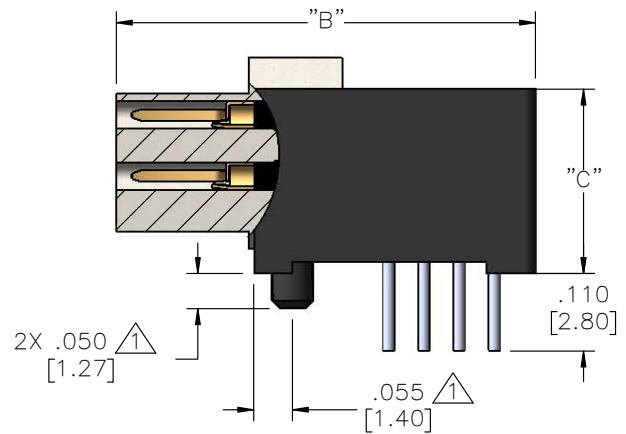
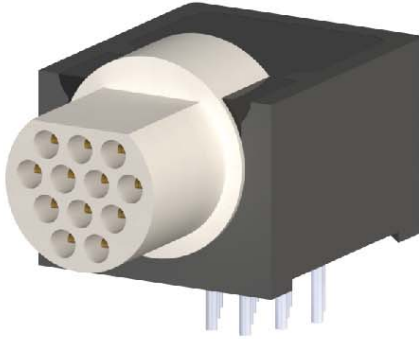
Electrical-Mechanical Specifications

- Operating Temperature: -55°C to 125°C
- Dielectric Withstand Voltage: 600 VAC RMS @sea level
- Contact Resistance: 26 milliohms(65 mV) Max @2.5 Amps
- Current Rating: 3 Amps per contact
- Durability: >2000 Mating Cycles min
- Insulation Resistance: 5000 megohms @ 500 VDC
- Shock: 50 g's with no discontinuities > 1 microsecond
- Vibration: 20 g's with no discontinuities > 1 microsecond
- Thermal Vacuum Outgassing (Space Class): 1.0% max TML, 0.03% max CVCM
- Mating/Unmating Force: 3 oz (85 g) typical per contact

Material Specifications

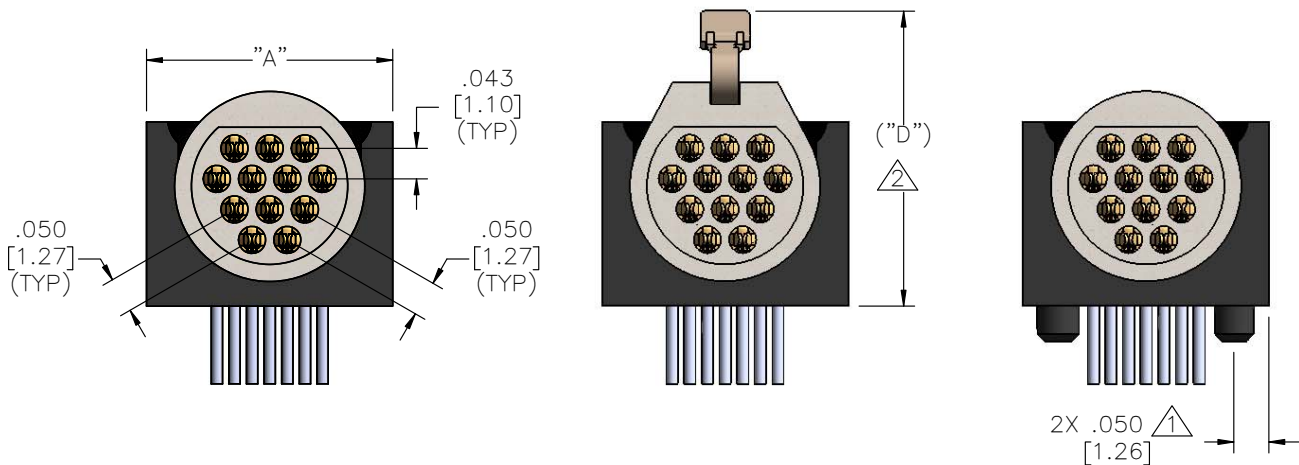
- Contact: Copper Alloy per MIL-DTL-83513
- Contact Finish: Gold per ASTM B488, Type II, Class 1.27, Code C
Over Nickel Underplate
- Insulator: Thermoplastic per MIL-M-24519

Plastic - Pin - Right Angle Thru-Hole MCP-RA



① OPTIONAL MOUNTING POSTS

② OPTIONAL LATCH



English (IN)

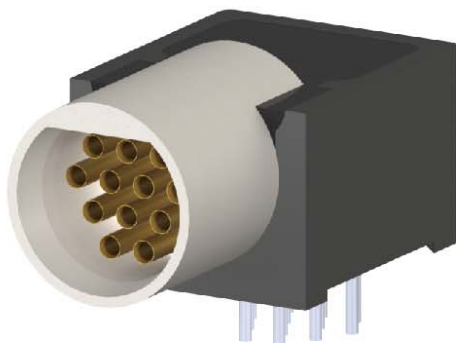
Metric (MM)

Part #	Contacts	A	B	C	A	B	C
A22052-001	5	0.300	0.495	0.232	7.62	12.57	5.89
A22053-001	12	0.350	0.595	0.262	8.89	15.11	6.65
A22054-001	16	0.411		0.294	10.44		7.47

LATCHING OPTION

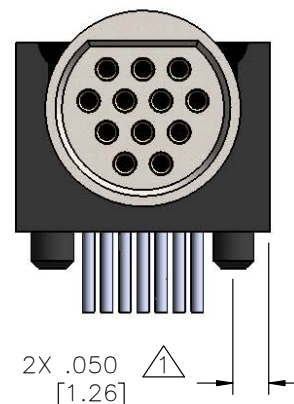
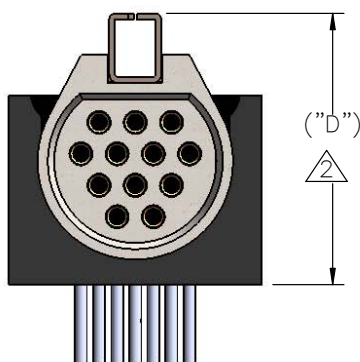
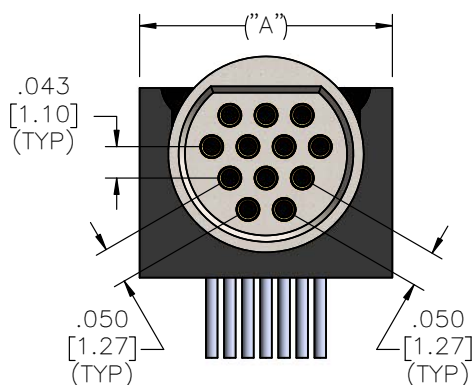
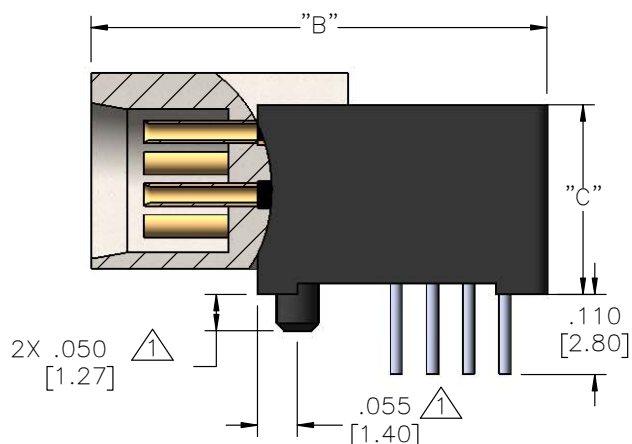
Part #	Contacts	English (IN)	Metric (MM)
		D	D
A22056-001	5	0.340	8.64
A22058-001	12	0.420	10.67
A22353-001	16	0.450	11.43

Plastic - Socket - Right Angle Thru-Hole MCS-RA



① OPTIONAL MOUNTING POSTS

② OPTIONAL LATCH BOX

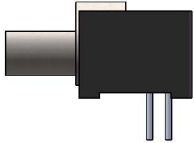
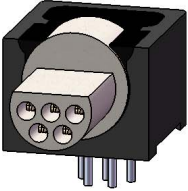
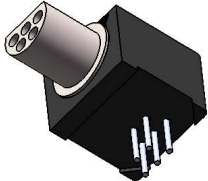
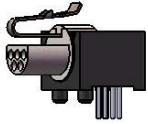
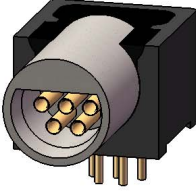


Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22060-001	5	0.300	0.530	0.232	7.62	13.46	5.89
A22061-001	12	0.350	0.630	0.262	8.89	16.00	6.65
A22354-001	16	0.411		0.294	10.44		7.47

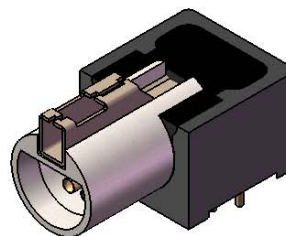
LATCHING OPTION

Part #	Contacts	English (IN)	Metric (MM)
		D	D
A22062-001	5	0.300	7.62
A22063-001	12	0.370	9.40
A22355-001	16	0.400	10.16

MICRO CIRCULAR RIGHT ANGLE THRU-HOLE (TYPE RA)

Series	# of Contacts	Termination Type	Options
MC	5 12 16	RA: Right Angle Thru-Hole	LT Latch
Male (P - Pin)			
			
Female (S - Socket)			
			

EXAMPLE:
MCS-05-RA-LT



MICRO 360® Metal

Micro Circular Ratcheting

Optional IP68 rating



Electrical-Mechanical Specifications

- | | |
|--|---|
| ■ Performance: | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513 |
| ■ Contact Resistance: | 26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513 |
| ■ Current Rating: | 3 Amps per MIL-DTL-83513 |
| ■ Operating Temperature: | -55°C to 125°C (200°C with High Temp Epoxy) |
| ■ Durability: | IP68 overmold -55°C to 85°C |
| ■ Insulation Resistance: | >2000 mating cycles min |
| ■ Shock: | 5000 megohms @ 500 VDC |
| ■ Vibration: | 50 g's with no discontinuities > 1 microsecond |
| ■ Mating/Unmating Force: | 20 g's with no discontinuities > 1 microsecond |
| ■ Thermal Vacuum Outgassing (Space Class): | 3 oz (85 g) typical per contact |
| | NASA SP-R-0022 |

Material Specifications

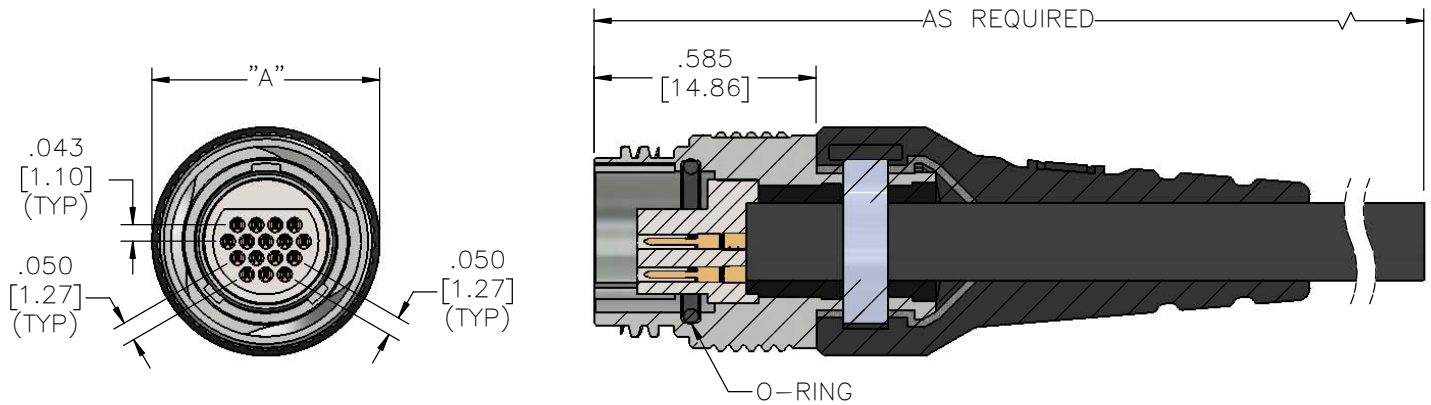
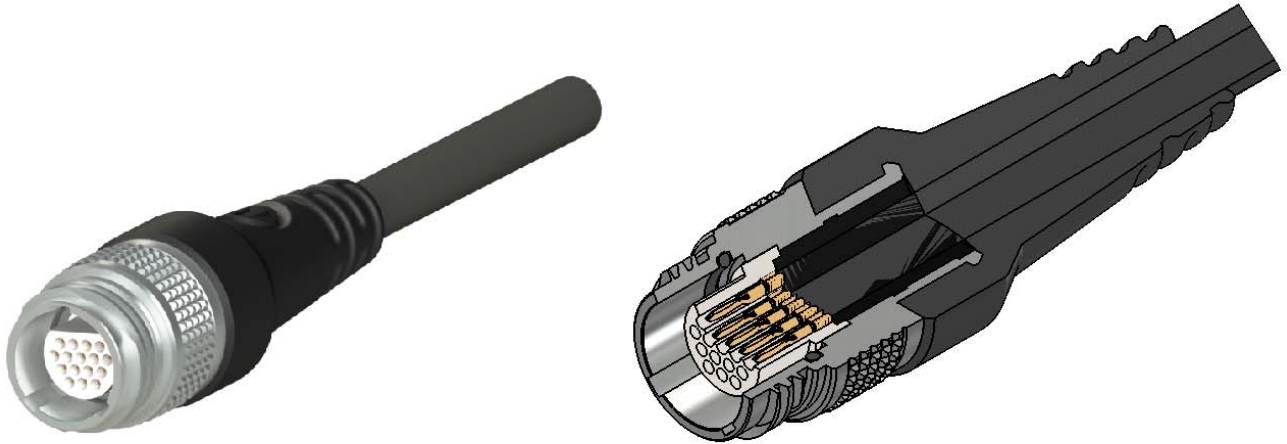
- | | |
|---------------------|--|
| ■ Contact: | Copper Alloy Per MIL-DTL-83513 |
| ■ Contact Finish: | Gold per ASTM B488, Type II, Class 1.27, Code C |
| | Over Nickel Underplate |
| ■ Insulator: | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | Black Thermoplastic Polyurethane |
| ■ O-Ring: | BUNA-N |
| ■ Cable (Shielded): | 26 AWG, (7-34) Tinned Copper, PFA Color Coded, Black |
| | Polyurethane Jacket |

Shell Options

- | | |
|--------------------------------|---|
| ■ Aluminum 6061: | Electroless Nickel per SAE-AMS-2404 |
| | Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | Passivated per SAE-AMS-2700 |
| | Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

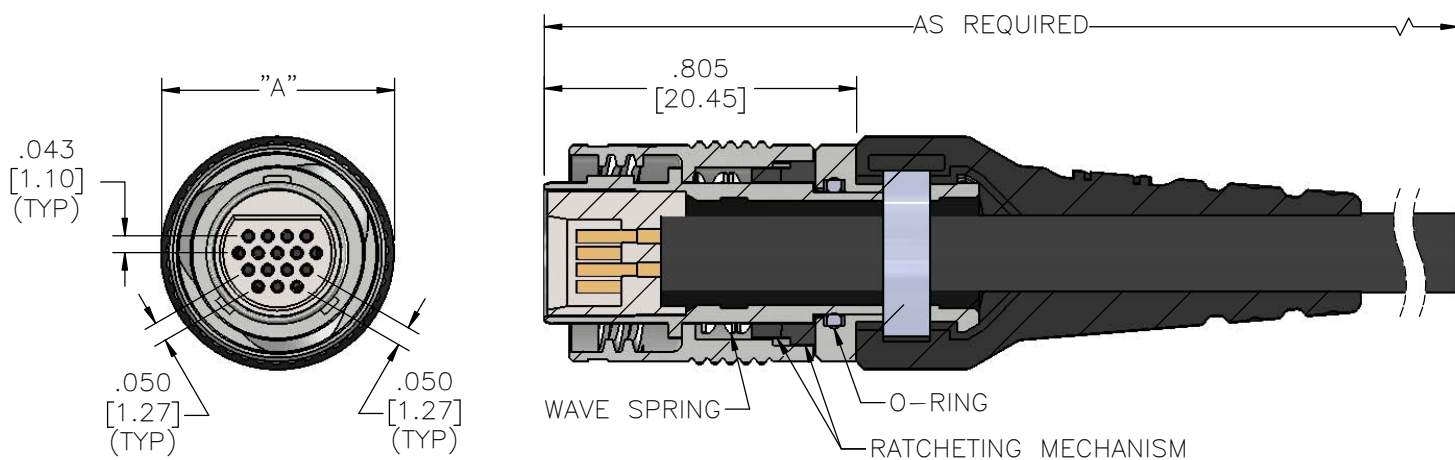
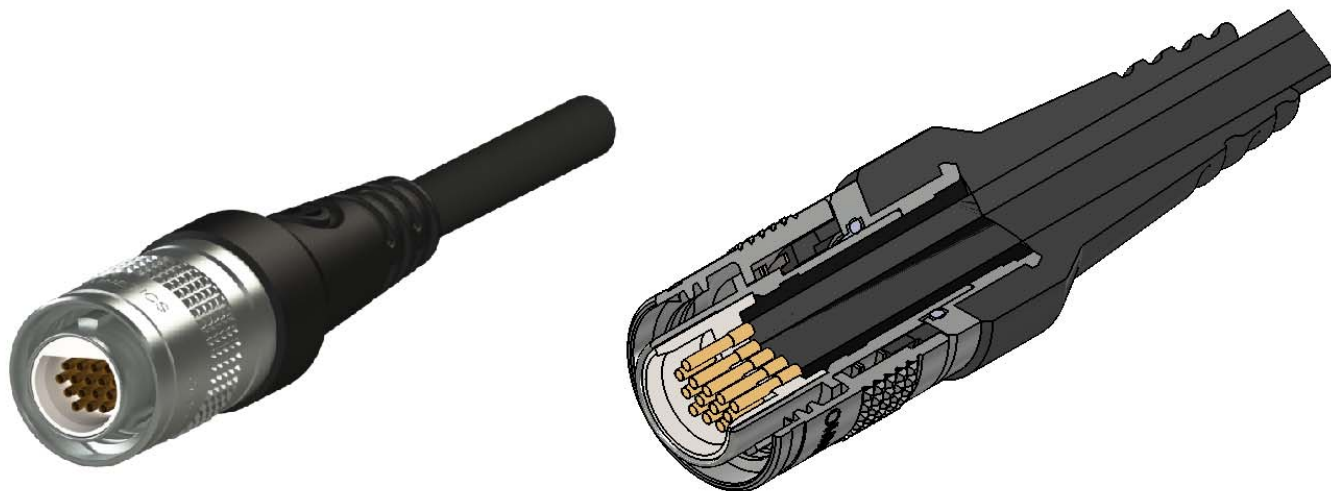
* less resistance to salt spray test.

Metal - Pin - Ratcheting - Cabled - Inline - IP68 RMCP-WC-OM-IS-IP68



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22493-001	5	0.510	12.95
A22500-001	12	0.550	13.97
A22507-001	16	0.600	15.24
A22514-001	27	0.670	17.02
A22557-001	39	0.780	19.81

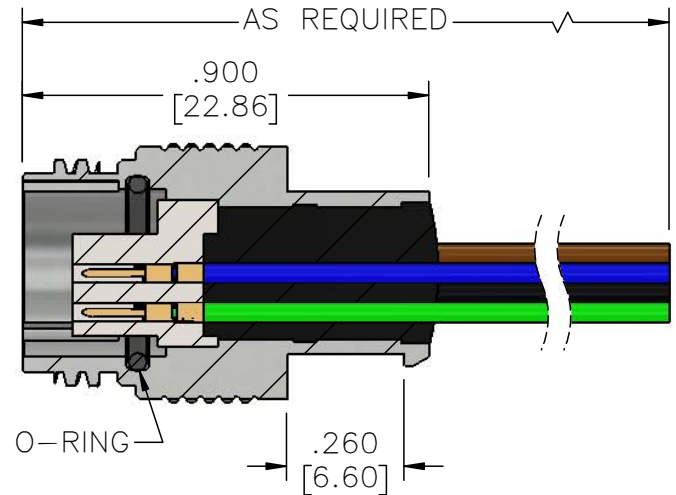
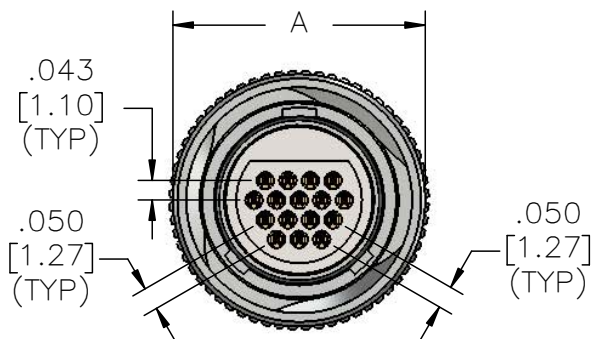
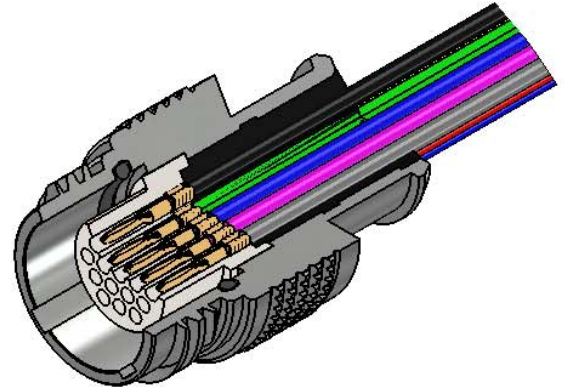
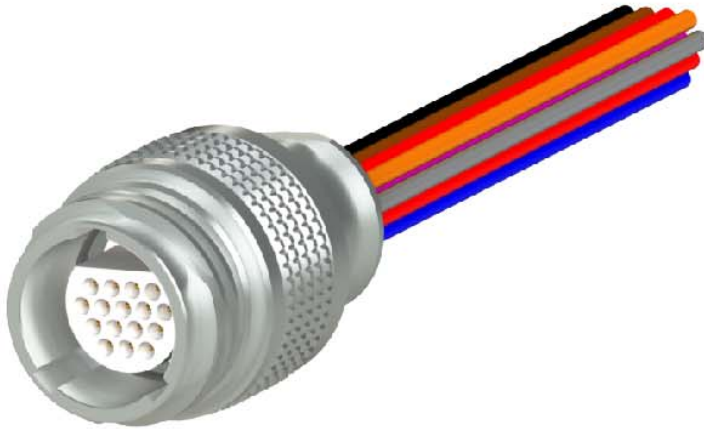
Metal - Socket - Ratcheting - Cabled - Inline - IP68 RMCS-WC-OM-IS-IP68



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22492-001	5	0.510	12.95
A22499-001	12	0.550	13.97
A22506-001	16	0.600	15.24
A22513-001	27	0.670	17.02
A22559-001	39	0.780	19.81

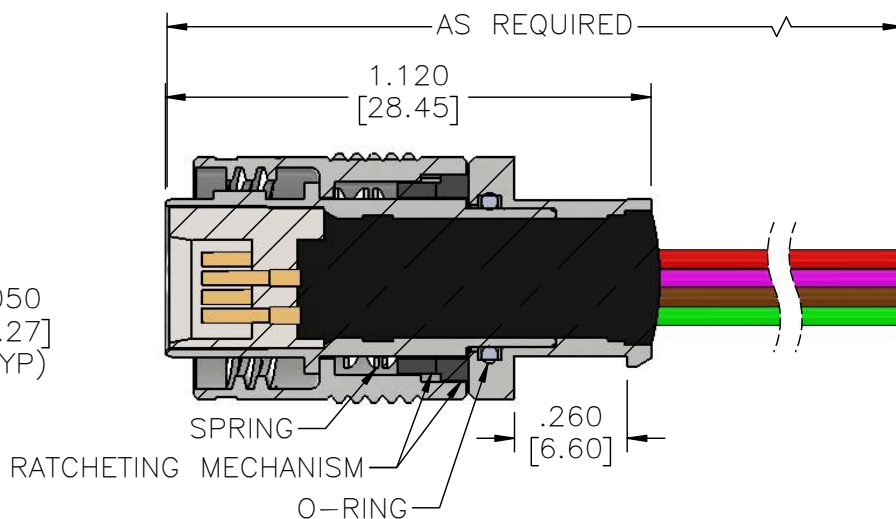
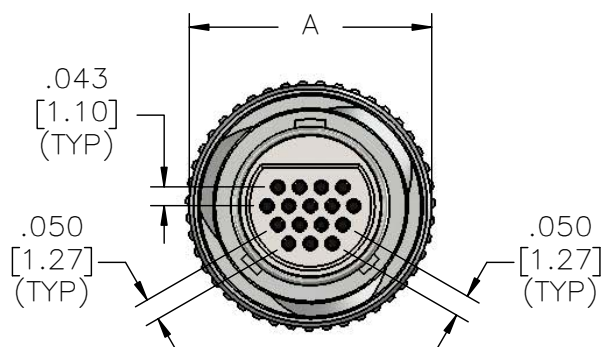
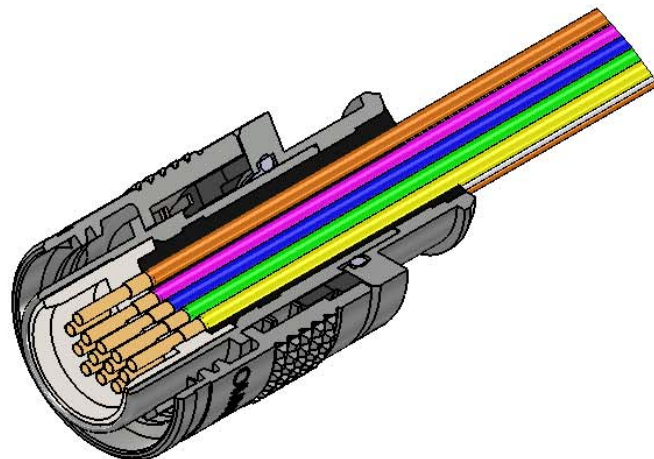
Metal - Pin - Ratcheting - Wired

RMCP-WD



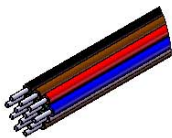
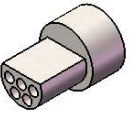
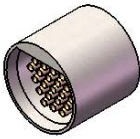
		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22491-001	5	0.480	12.10
A22498-001	12	0.520	13.30
A22505-001	16	0.590	14.90
A22512-001	27	0.730	16.50
A22556-001	39	0.950	18.50

Metal - Socket - Ratcheting - Wired RMCS-WD



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22490-001	5	0.480	12.10
A22497-001	12	0.520	13.30
A22504-001	16	0.590	14.90
A22511-001	27	0.730	16.50
A22558-001	39	0.950	18.50

MICRO CIRCULAR RATCHETING

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options, cont.
RMC	5	WD: Discrete Lead Wire	Standard	SR: Inline Shell w/ Strain Relief	C
	12		N: Nickel Plated Aluminum		Color Coded
Male (P - Pin)	16				
	27		Non-Standard Options	ST: Inline Shell w/ Shrink Tube	OM
	39	WC: Cable	BN: Black Nickel Plated Aluminum		Inline Shell w/ Overmold
					
Female (S - Socket)		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	P: Passivated Stainless Steel	IS: Inline Shell (Shell only)	OR
					O-Ring
*Insulator colors may be black or off-white			OX: Black Oxide Finished Steel		
					IP68
					IP68
					RH
					RoHS COMPLIANT
					

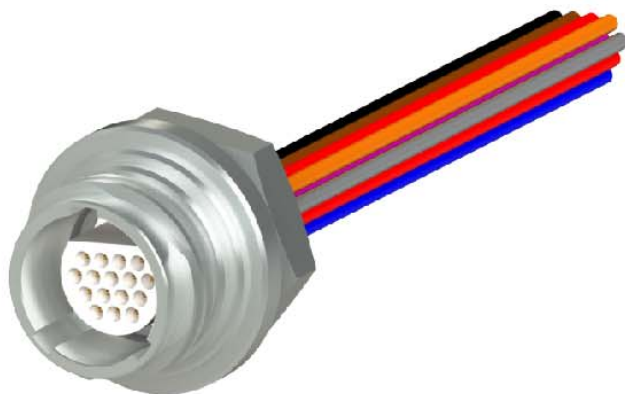
EXAMPLE:
RMCS-16-WC-18.0-C-IS-N-OM-IP68



MICRO 360® Metal

Micro Circular Ratcheting Panel Mount

Optional IP68 Rating



Electrical-Mechanical Specifications

■ Operating Temperature:	-55°C to 125°C
■ Dielectric Withstand Voltage:	600 VAC RMS @sea level
■ Contact Resistance:	26 milliohms(65 mV) Max @2.5 Amps
■ Current Rating:	3 Amps per contact
■ Durability:	500 Mating Cycles min
■ Insulation Resistance:	5000 megohms @ 500 VDC
■ Shock:	50 g's with no discontinuities > 1 microsecond
■ Vibration:	20 g's with no discontinuities > 1 microsecond
■ Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% max CVCM
■ Mating/Unmating Force:	3 oz (85 g) per contact

Material Specifications

■ Contact:	Copper Alloy per MIL-DTL-83513
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Wire:	26 AWG (7-34) PTFE, color coded

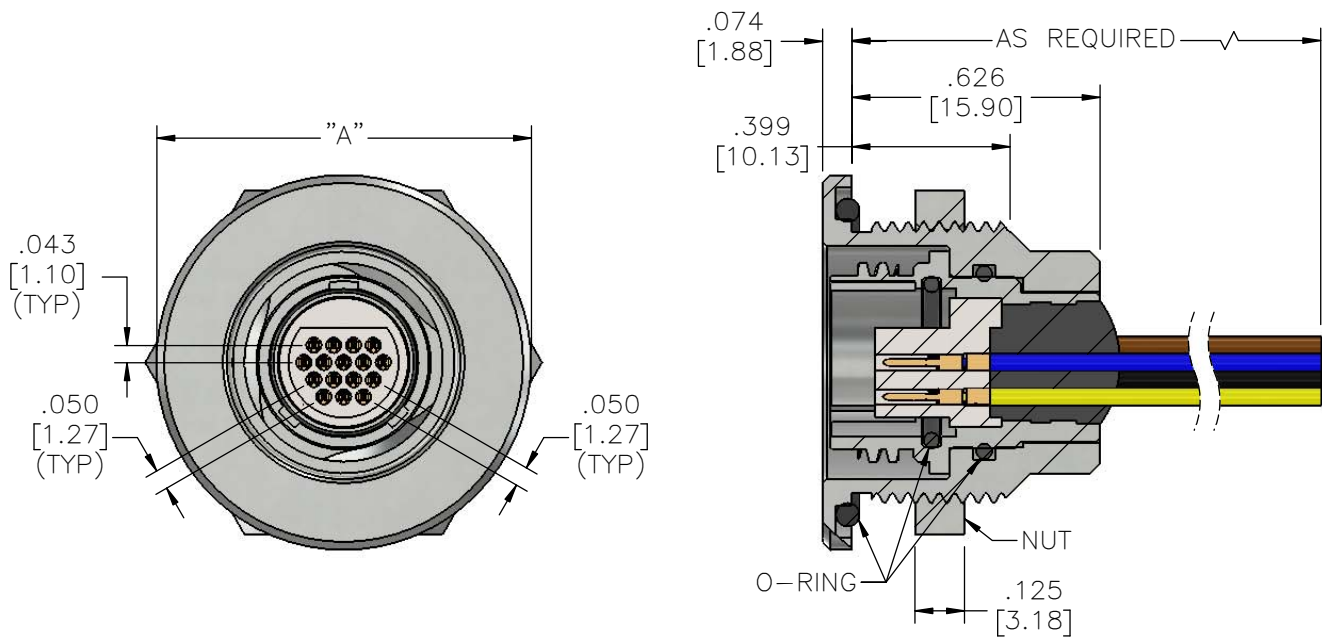
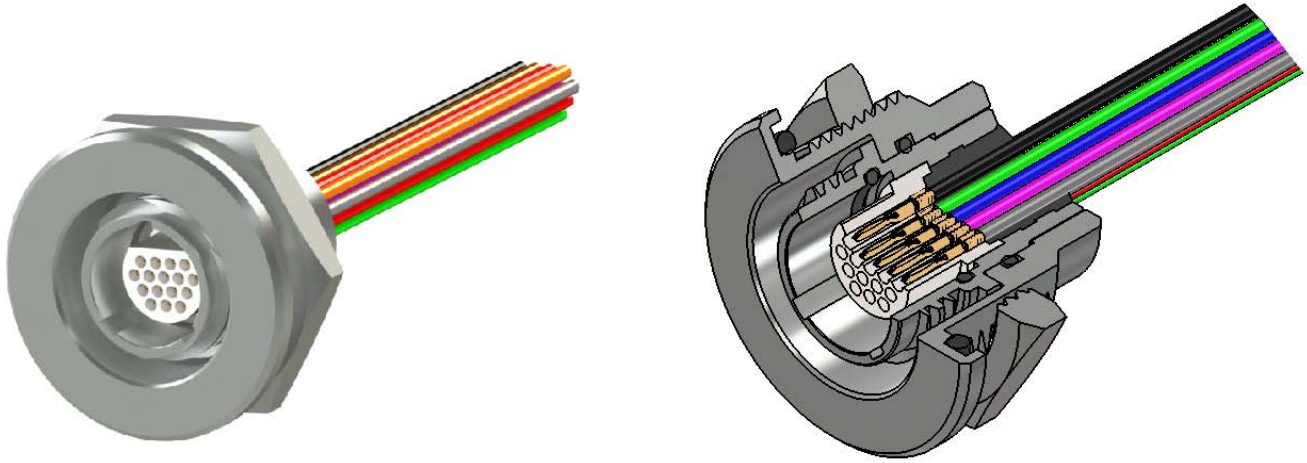
Shell Options

■ Brass Alloy 360 1/2 Hard:	Electroless Nickel per SAE-AMS-2404 Black Nickel per MIL-P-18317
■ Stainless Steel, 300 Series:	Passivated per SAE-AMS-2700 Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

* less resistance to salt spray test.

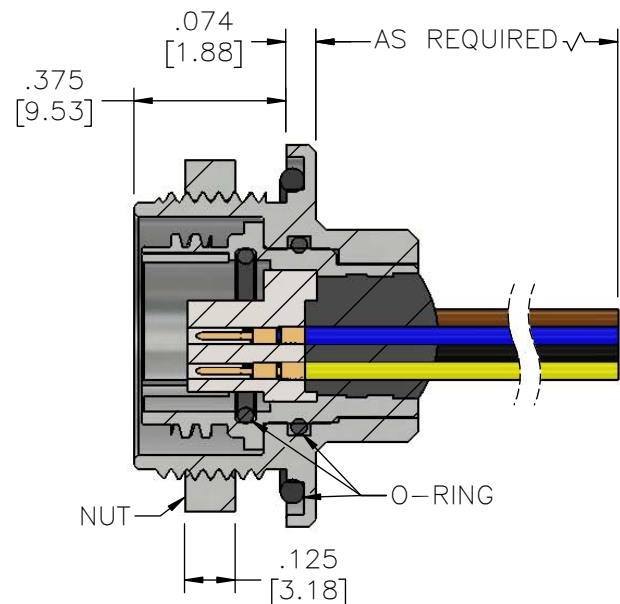
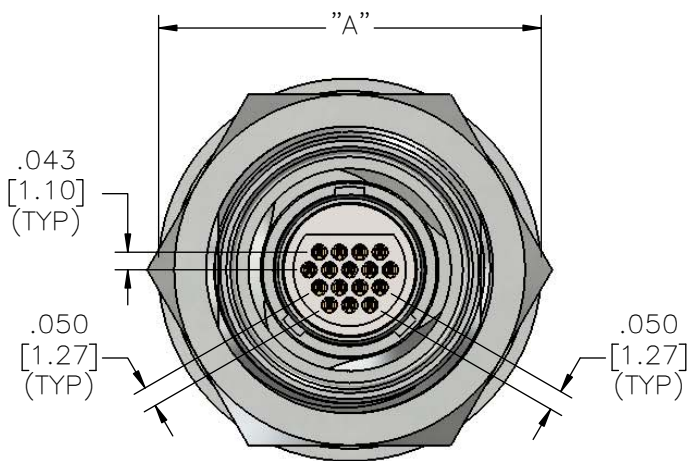
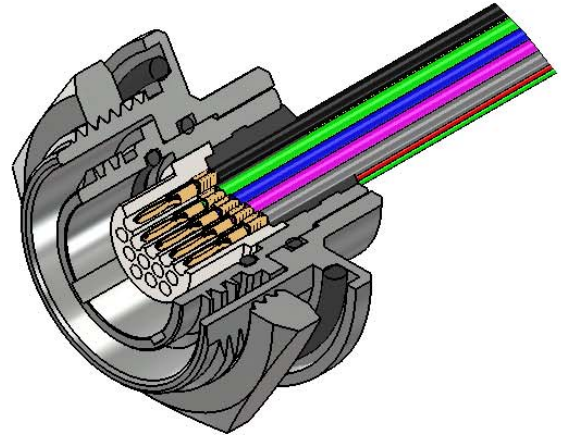
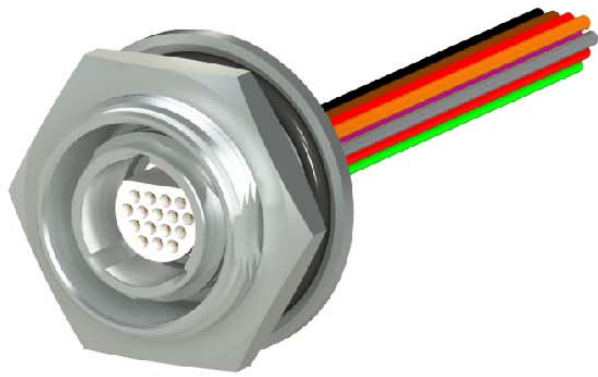
Metal - Pin - Ratcheting - Front Panel

RMCP-FP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22495-001	5	0.820	20.83
A22502-001	12	0.900	22.86
A22509-001	16	0.950	24.13
A22516-001	27	1.020	25.91
A22553-001	39	0.810	20.57

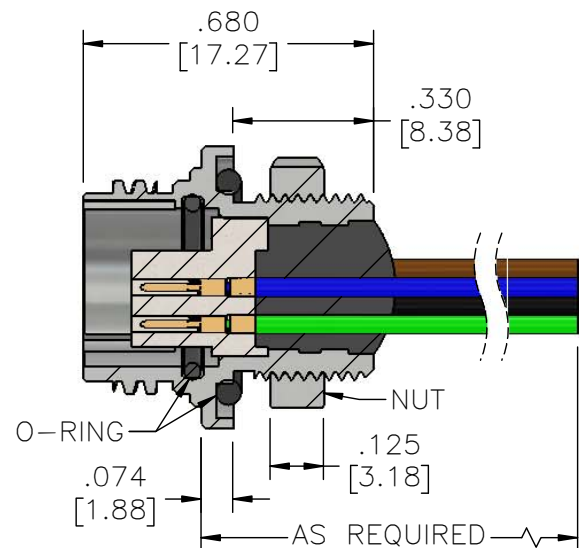
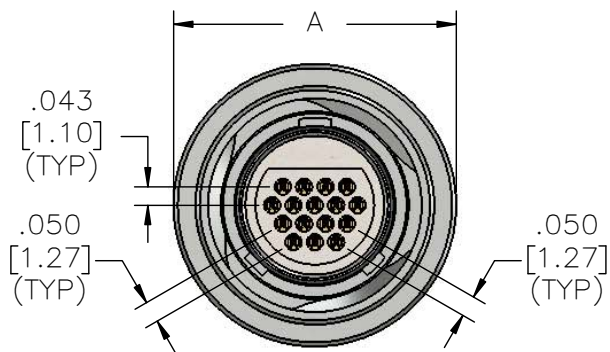
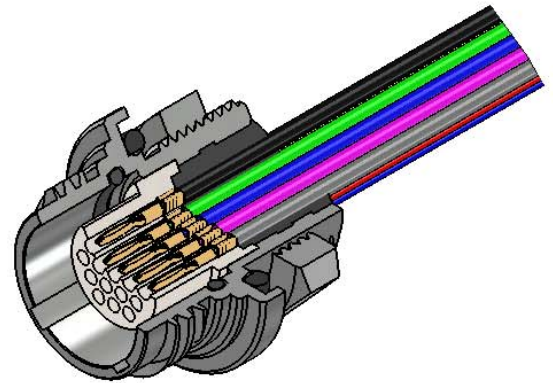
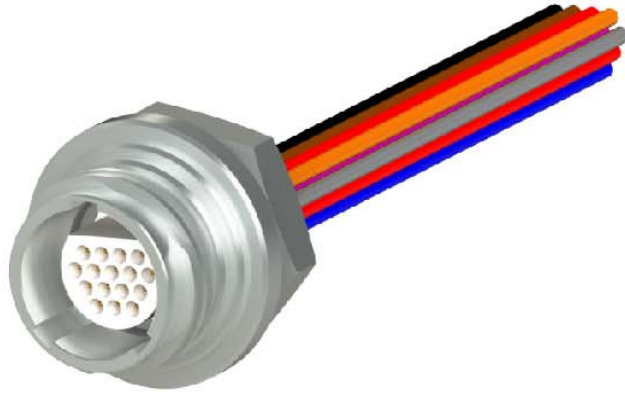
Metal - Pin - Ratcheting - Rear Panel RMCP-RP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22496-001	5	0.820	20.83
A22503-001	12	0.900	22.86
A22510-001	16	0.950	24.13
A22517-001	27	1.020	25.91
A22554-001	39	1.130	28.70

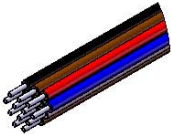
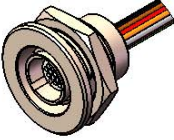
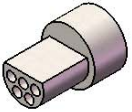
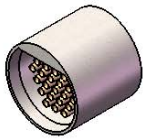
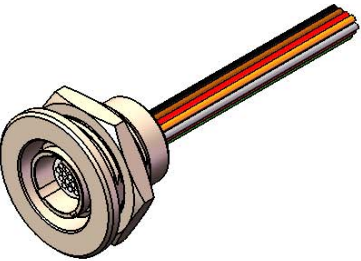
Metal - Pin - Ratcheting - Protruding Panel

RMCP-PP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22494-001	5	0.528	13.41
A22501-001	12	0.578	14.68
A22508-001	16	0.662	16.81
A22515-001	27	0.732	18.59
A22555-001	39	1.130	28.70

RATCHETING MICRO CIRCULAR PANEL MOUNT

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
RMC	5	WD: Discrete Lead Wire	Standard	FP: Front Panel Mount (Male Only)	C Color Coded
	12		N: Nickel Plated Aluminum		
	16				
Male (P - Pin)	27				
	39				
		WC: Cable	Non-Standard Options	RP: Rear Panel Mount (Male Only)	OR O-Ring
			BN: Black Nickel Plated Aluminum		
Female (S - Socket)					IP68
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	P: Passivated Stainless Steel	PP: Protruding Panel Mount (Male Only)	RH RoHS COMPLIANT
					
			OX: Black Oxide Finished Steel		
					
					
EXAMPLE: RMCP-16-WD-10.0-C-FP-N-OR					

MICRO 360® Metal

Micro Circular Threaded

Optional IP68 Rating



Electrical-Mechanical Specifications

■ Performance:	Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513
■ Contact Resistance:	26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513
■ Current Rating:	3 Amps per MIL-DTL-83513
■ Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy) IP68 overmold -55°C to 85°C
■ Durability:	>2000 mating cycles min
■ Insulation Resistance:	5000 megohms @ 500 VDC
■ Shock:	50 g's with no discontinuities > 1 microsecond
■ Vibration:	20 g's with no discontinuities > 1 microsecond
■ Mating/Unmating Force:	3 oz (85 g) typical per contact
■ Thermal Vacuum Outgassing (Space Class):	NASA SP-R-0022

Material Specifications

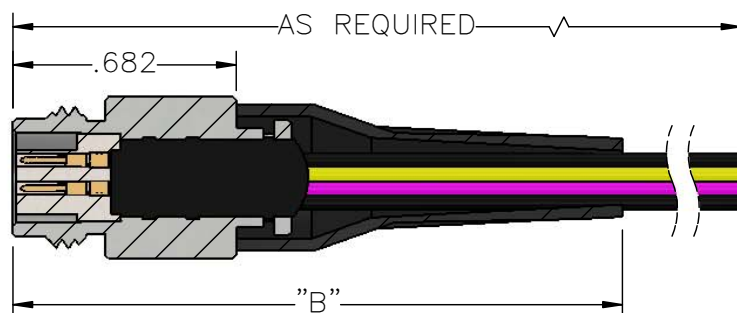
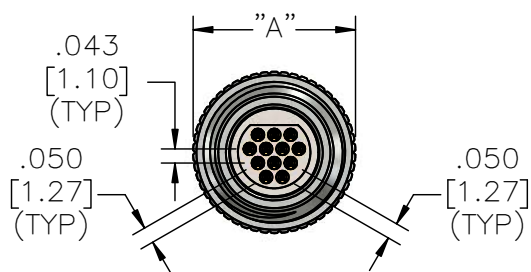
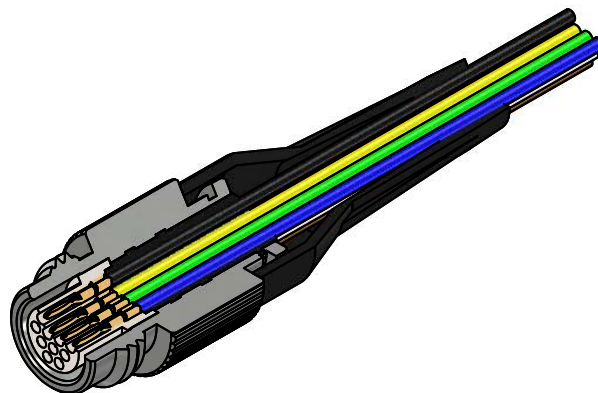
■ Contact:	Copper Alloy Per MIL-DTL-83513
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Overmold:	Black Thermoplastic Polyurethane
■ O-Ring:	BUNA-N
■ Cable (Shielded):	26 AWG, (7-34) Tinned Copper, PFA color coded, Black Polyurethane Jacket
■ Wire:	26 AWG (7-34) PTFE, color coded

Shell Options

■ Brass Alloy 360 1/2 Hard:	Electroless Nickel per SAE-AMS-2404 Black Nickel per MIL-P-18317
■ Stainless Steel, 300 Series:	Passivated per SAE-AMS-2700 Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

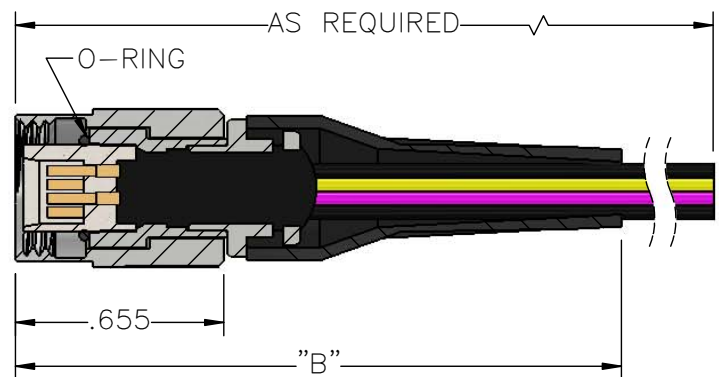
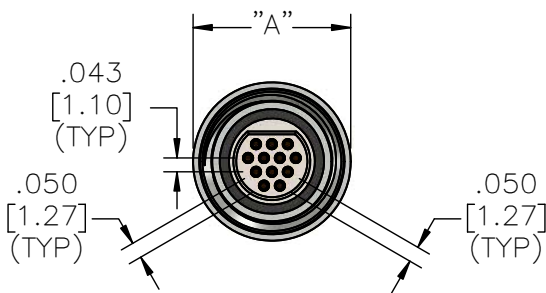
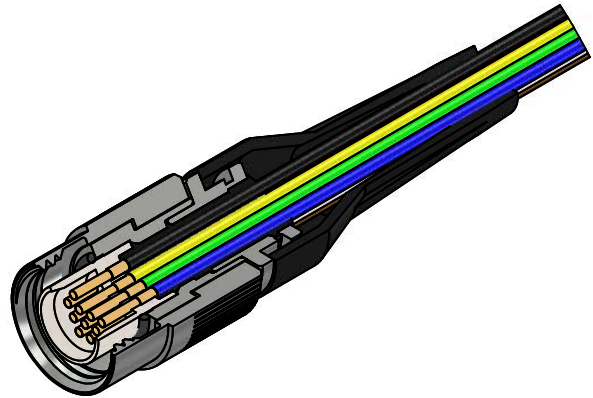
* less resistance to salt spray test.

Metal - Pin - Threaded - Wired - Inline - Strain Relief MMCP-WD-IS-SR



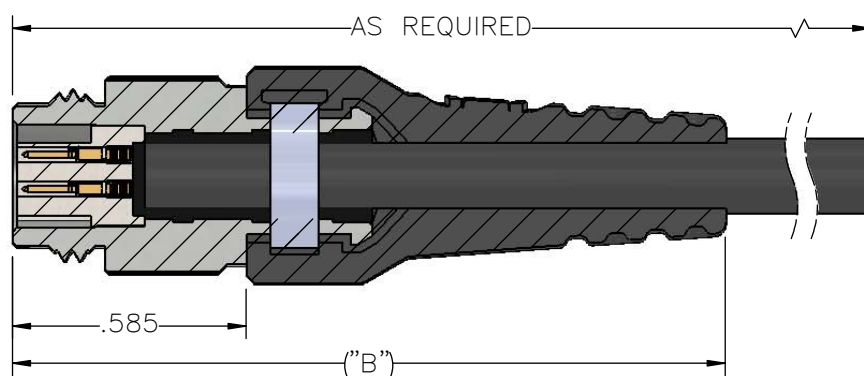
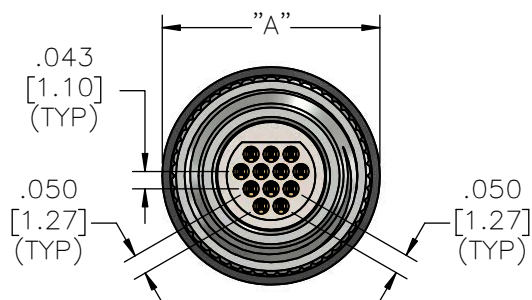
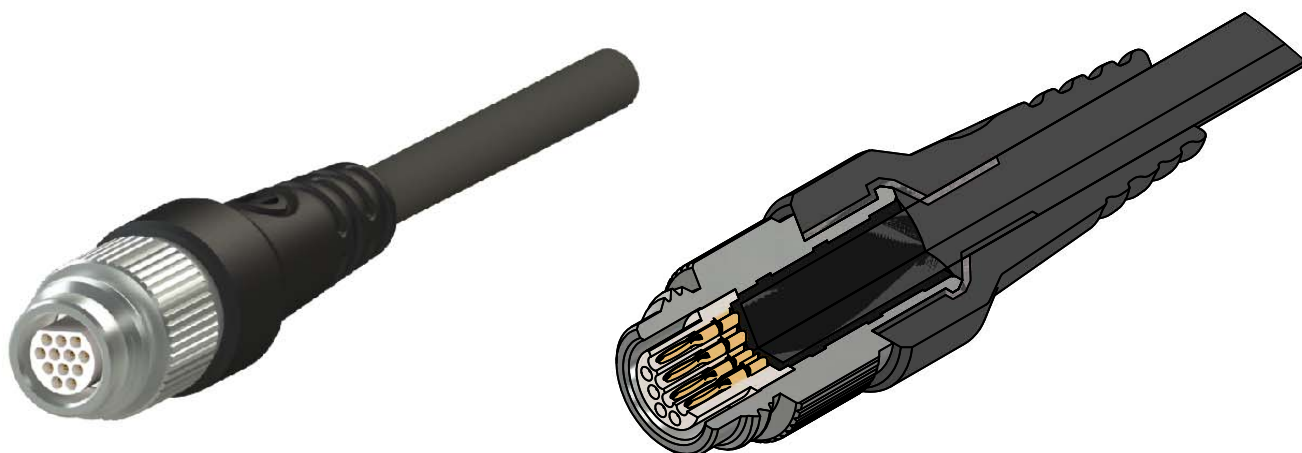
Part #	Contacts	English (IN)		Metric (MM)	
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A22368-001	5	0.420	1.900	10.67	48.26
A22373-001	12	0.500		12.70	
A22378-001	16	0.560		14.22	
A22383-001	27	0.610	2.100	15.49	53.34
A22486-001	39	0.650	2.300	16.51	58.42

Metal - Socket - Threaded - Wired - Inline - Strain Relief MMCS-WD-IS-SR



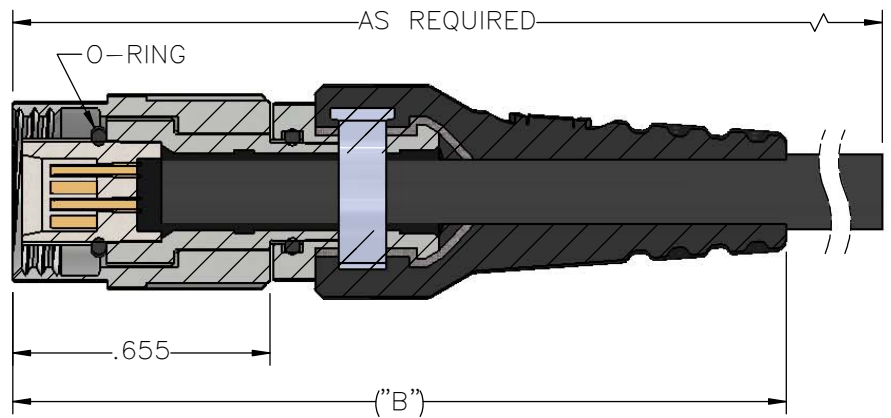
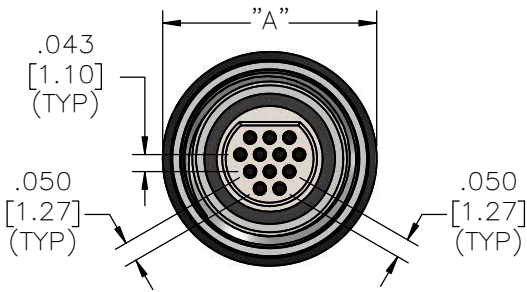
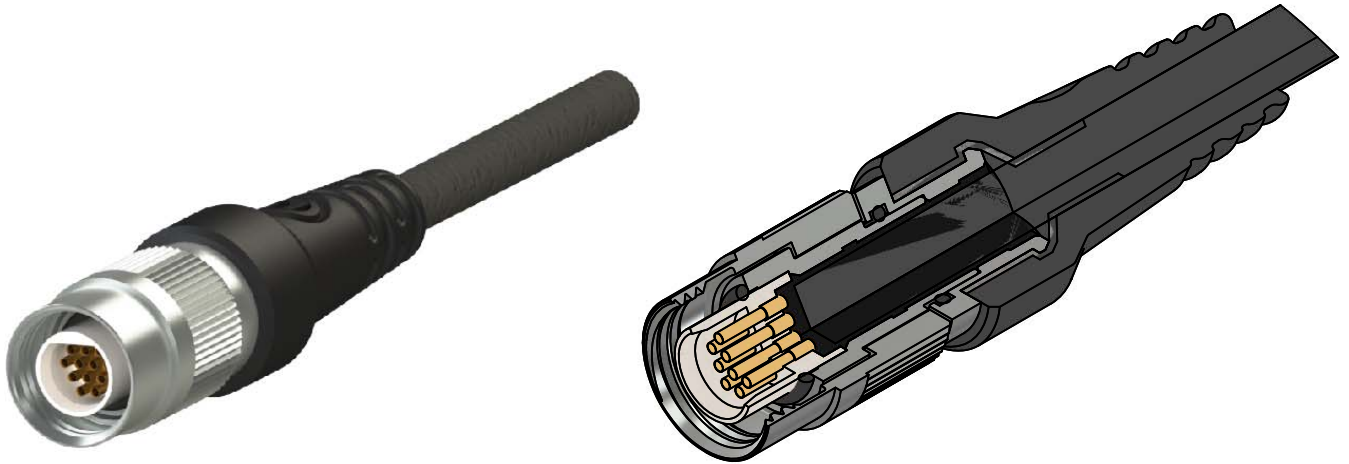
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A22372-001	5	0.420	1.900	10.67	48.26
A22377-001	12	0.500		12.70	
A22382-001	16	0.560		14.22	
A22387-001	27	0.610	2.100	15.49	53.34
A22488-001	39	0.680	2.400	17.27	60.96

Metal - Pin - Threaded - Cabled - Overmold - Inline MMCP-WC-OM-IS



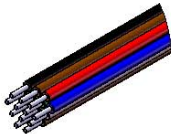
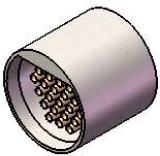
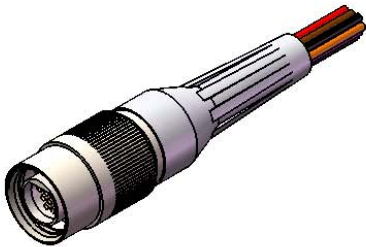
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A22336-001	5	0.510	1.740	12.95	44.20
A22334-001	12	0.550	1.790	13.97	45.47
A22332-001	16	0.600	1.890	15.24	48.01
A22330-001	27	0.670	2.080	17.02	52.83
A22487-001	39	0.720		18.29	

Metal - Socket - Threaded - Cabled - Overmold - Inline MMCS-WC-OM-IS



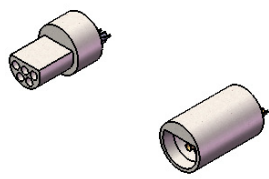
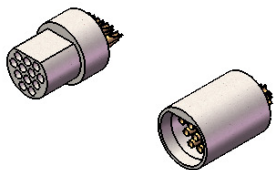
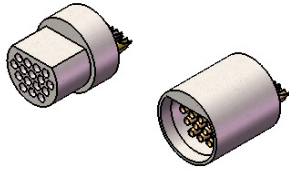
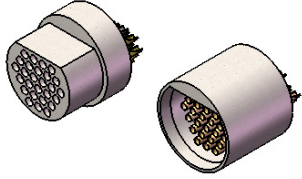
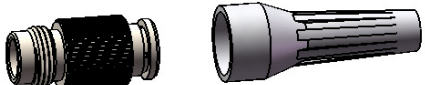
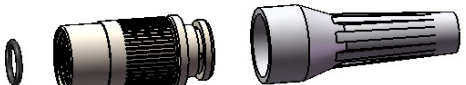
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A22335-001	5	0.510	1.920	12.95	48.77
A22333-001	12	0.550	1.970	13.97	50.04
A22331-001	16	0.600	2.070	15.24	52.58
A22329-001	27	0.670	2.160	17.02	54.86
A22489-001	39	0.720		18.29	

METAL MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options, cont.
MMC	5	WD: Discrete Lead Wire	Standard	IS: Inline Shell (shell only)	C Color Coded
	12		N: Nickel Plated Brass		
Male (P - Pin)	16				
	27				
	39				
Female (S - Socket)		WC: Cable	Non-Standard Options	Options	OR O-Ring
			BN: Black Nickel Plated Brass	SR: Inline Shell w/ Strain Relief	
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max			IP68
			P: Passivated Stainless Steel	ST: Inline Shell w/ Shrink Tube	RH RoHS COMPLIANT
					
			OX: Black Oxide Finished Steel		OM Overmold (Contact Omnetics for Overmold Information & Availability)
					
					

EXAMPLE:
MMCS-12-WD-10.0-C-IS-N-SR-OR

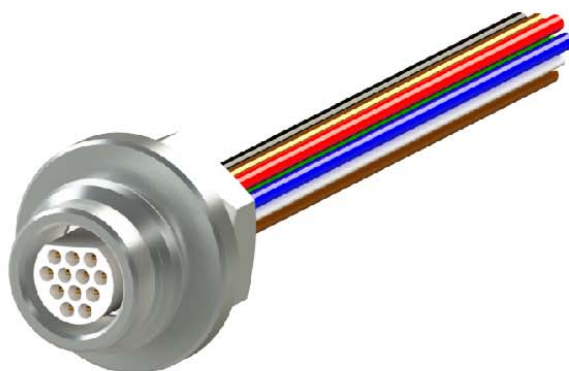
METAL MICRO CIRCULAR KITS

BODY SIZES	CONTACT TYPE	KIT CONTENTS
BODY SIZES 05, 12, 16 OR 27	GENDER MALE OR FEMALE	CONTENTS WITH OR WITHOUT SOLDER CUP CONNECTOR
05 	MALE 	WITH CONNECTOR: A22110-001
		W/O CONNECTOR: A22100-001
	FEMALE 	WITH CONNECTOR: A22111-001
		W/O CONNECTOR: A22101-001
12 	MALE 	WITH CONNECTOR: A22112-001
		W/O CONNECTOR: A22104-001
	FEMALE 	WITH CONNECTOR: A22113-001
		W/O CONNECTOR: A22105-001
16 	MALE 	WITH CONNECTOR: A22114-001
		W/O CONNECTOR: A22108-001
	FEMALE 	WITH CONNECTOR: A22115-001
		W/O CONNECTOR: A22109-001
27 	MALE 	WITH CONNECTOR: A22116-001
		W/O CONNECTOR: A22106-001
	FEMALE 	WITH CONNECTOR: A22117-001
		W/O CONNECTOR: A22107-001
MMCP KIT W/O CONNECTOR CONTAINS: (1) METAL SHELL (1) STRAIN RELIEF (1) ASSEMBLY INSTRUCTION SHEET		
		
MMCP KIT W/ CONNECTOR CONTAINS: (1) CONNECTOR W/ SOLDER CUPS (1) METAL SHELL (1) STRAIN RELIEF (1) ASSEMBLY INSTRUCTION SHEET		
		
MMCS KIT W/O CONNECTOR CONTAINS: (1) O-RING (1) METAL SHELL ASSEMBLY (1) STRAIN RELIEF (1) ASSEMBLY INSTRUCTION SHEET		
		
MMCS KIT W/ CONNECTOR CONTAINS: (1) CONNECTOR W/ SOLDER CUPS (1) O-RING (1) METAL SHELL ASSEMBLY (1) STRAIN RELIEF (1) ASSEMBLY INSTRUCTION SHEET		
		

MICRO 360® Metal

Micro Circular Threaded Panel Mount

Optional IP68 rating



Electrical-Mechanical Specifications

- | | |
|--|---|
| ■ Performance: | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513 |
| ■ Contact Resistance: | 26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513 |
| ■ Current Rating: | 3 Amps per MIL-DTL-83513 |
| ■ Operating Temperature: | -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C |
| ■ Durability: | >2000 mating cycles min |
| ■ Insulation Resistance: | 5000 megohms @ 500 VDC |
| ■ Shock: | 50 g's with no discontinuities > 1 microsecond |
| ■ Vibration: | 20 g's with no discontinuities > 1 microsecond |
| ■ Mating/Unmating Force: | 3 oz (85 g) typical per contact |
| ■ Thermal Vacuum Outgassing (Space Class): | NASA SP-R-0022 |

Material Specifications

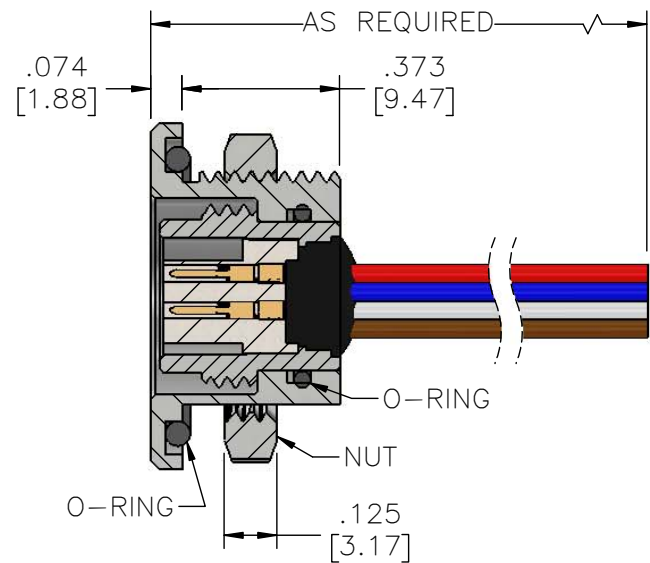
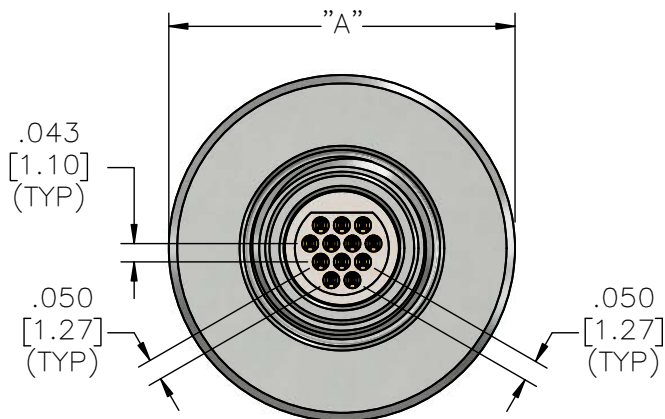
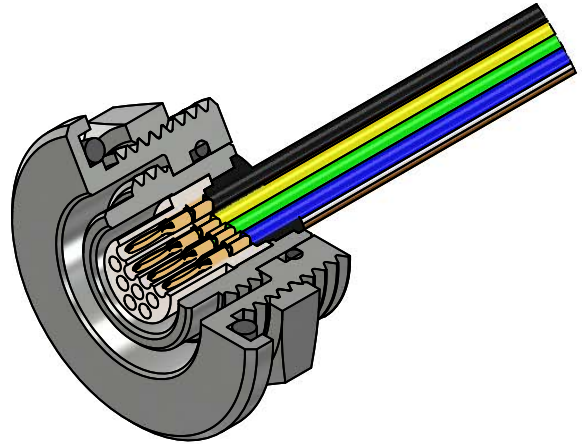
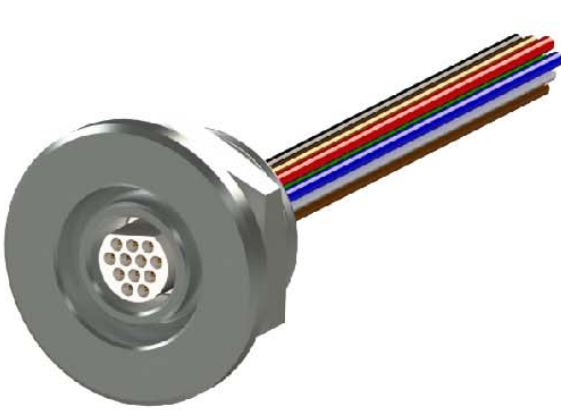
- | | |
|---------------------|---|
| ■ Contact: | Copper Alloy Per MIL-DTL-83513 |
| ■ Contact Finish: | Gold per ASTM B488, Type II, Class 1.27, Code C
Over Nickel Underplate |
| ■ Insulator: | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | Black Thermoplastic Polyurethane |
| ■ O-Ring: | BUNA-N |
| ■ Cable (Shielded): | 26 AWG, (7-34) Tinned Copper, PFA color coded, Black
Polyurethane Jacket |
| ■ Wire: | 26 AWG (7-34) PTFE, color coded |

Shell Options

- | | |
|--------------------------------|--|
| ■ Brass Alloy 360 1/2 Hard: | Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

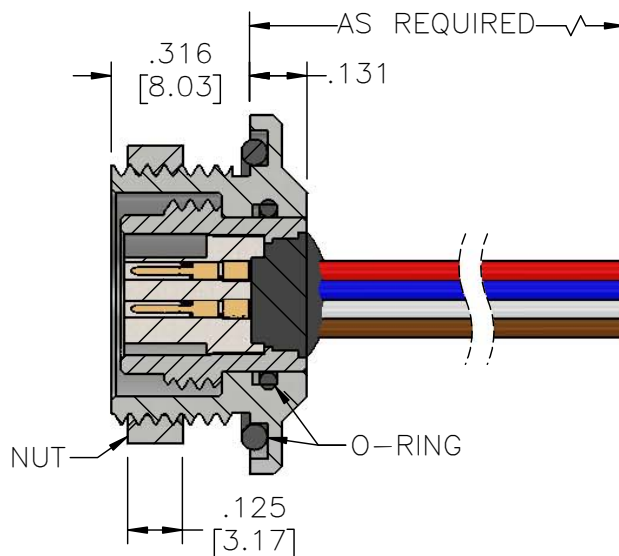
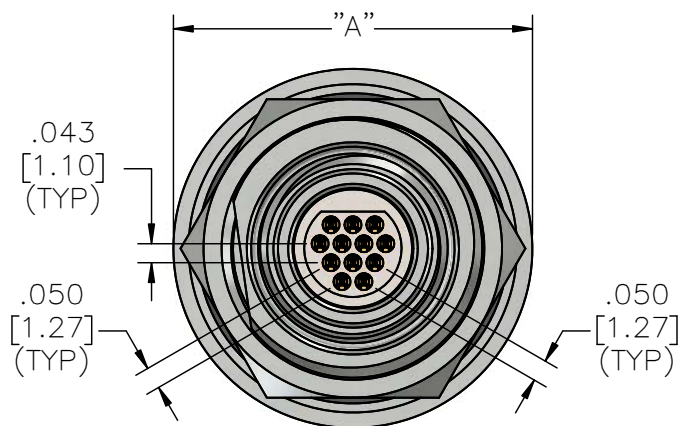
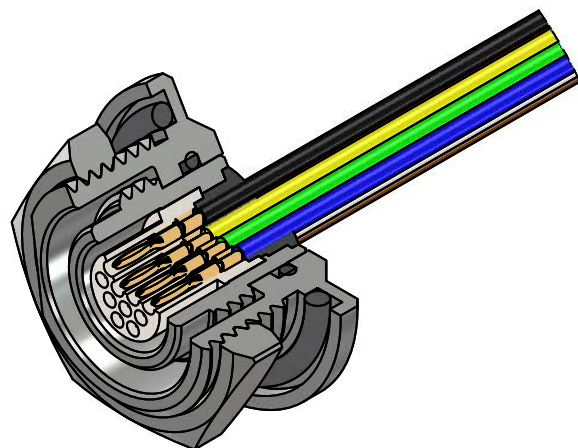
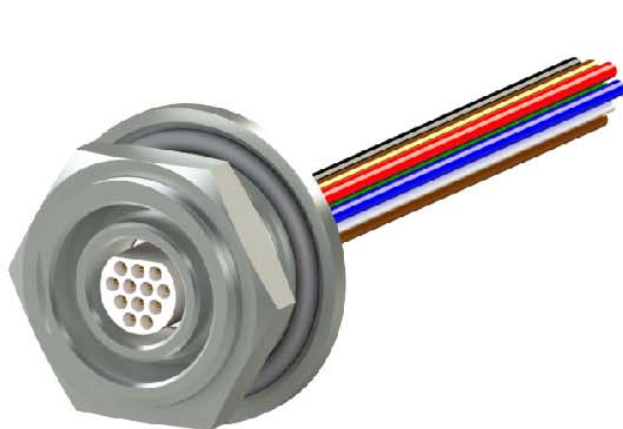
* less resistance to salt spray test.

Metal - Pin - Threaded - Wired - Front Panel MMCP-WD-FP



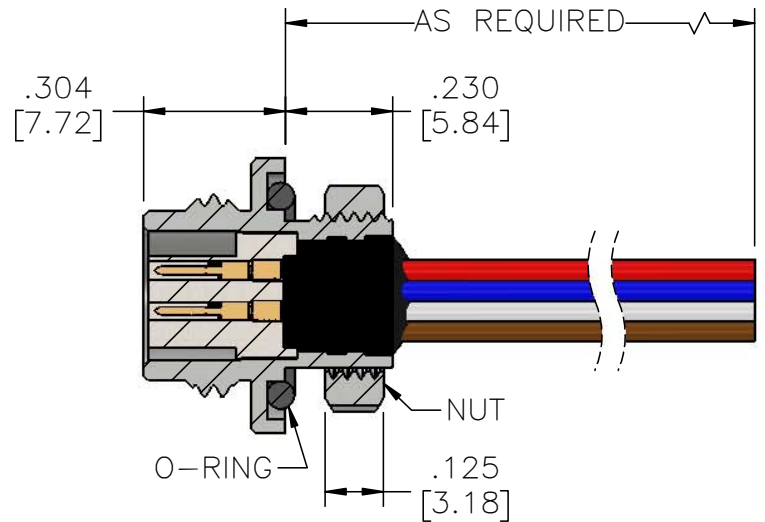
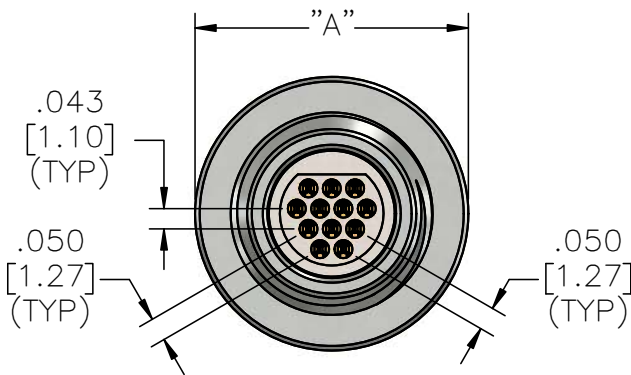
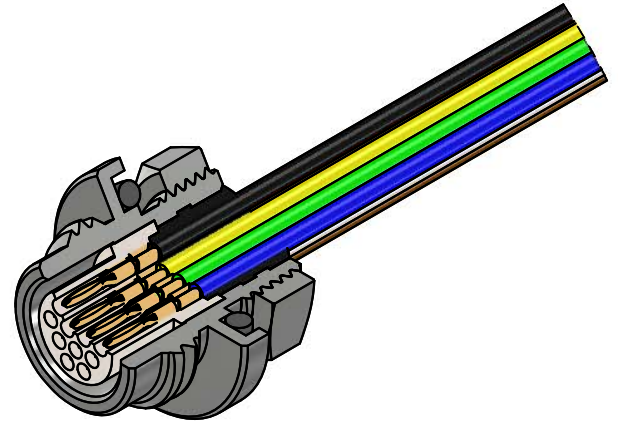
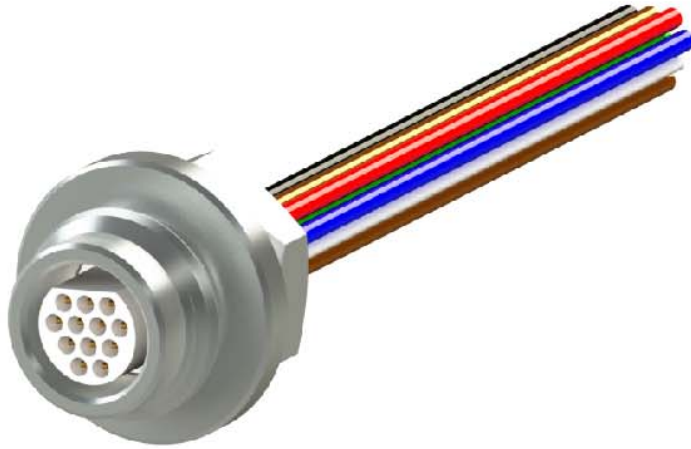
Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22128-001	5	0.750	19.05
A22129-001	12	0.820	20.83
A22130-001	16	0.875	22.23
A22131-001	27	0.990	25.15
A22483-001	39	1.100	27.94

Metal - Pin - Threaded - Wired/Cable - Rear Panel MMCP-WC/WD-RP



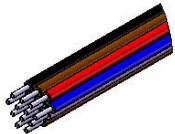
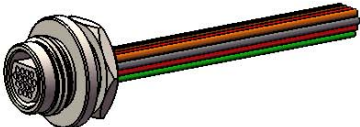
Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22132-001	5	0.750	19.05
A22133-001	12	0.820	20.83
A22134-001	16	0.875	22.23
A22135-001	27	0.990	25.15
A22484-001	39	1.100	27.94

Metal - Pin - Threaded - Wired - Protruding Panel MMCP-WD-PP



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22371-001	5	0.541	13.74
A22376-001	12	0.586	14.88
A22381-001	16	0.662	16.81
A22386-001	27	0.742	18.85
A22485-001	39	0.821	20.85

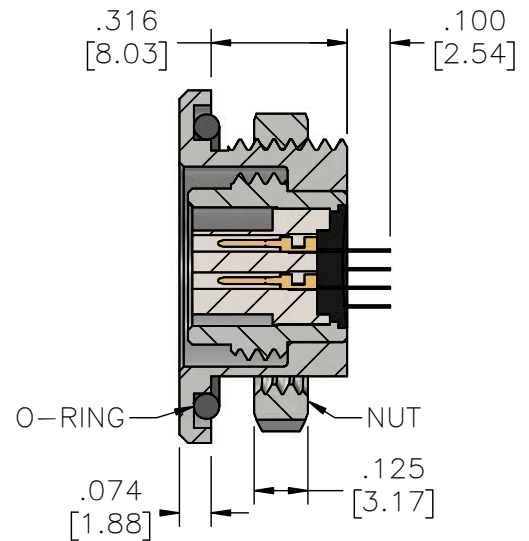
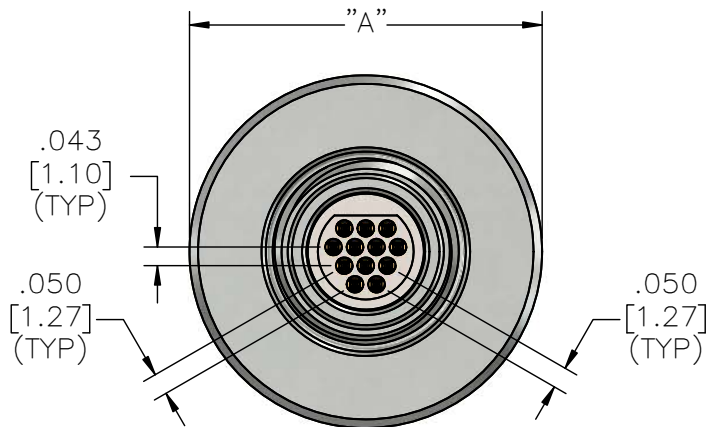
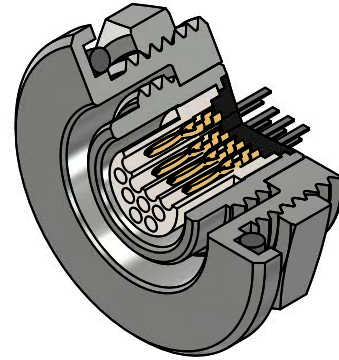
METAL MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
MMC	5	WD: Discrete Lead Wire	Standard	FP: Front Panel Mount (Male Only)	C Color Coded
	12				
Male (P - Pin)	16		N: Nickel Plated Brass 		
	27				
	39				
		WC: Cable	Non-Standard Options	RP: Rear Panel Mount (Male Only)	OR O-Ring
			BN: Black Nickel Plated Brass 		
Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max			P: Passivated Stainless Steel 	PP: Protruding Panel Mount (Male Only)	IP68 
			OX: Black Oxide Finished Steel 		RH RoHS COMPLIANT 
					

EXAMPLE:
MMCP-16-WD-10.0-C-PP-N-OR

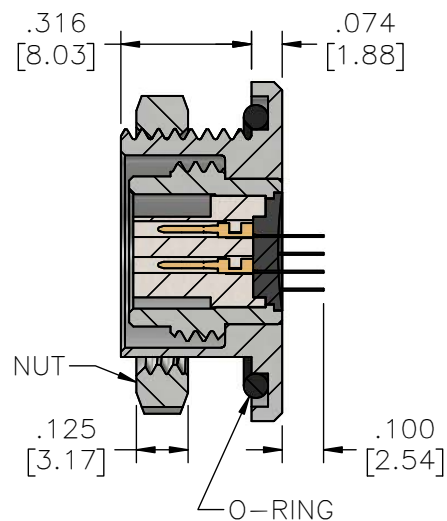
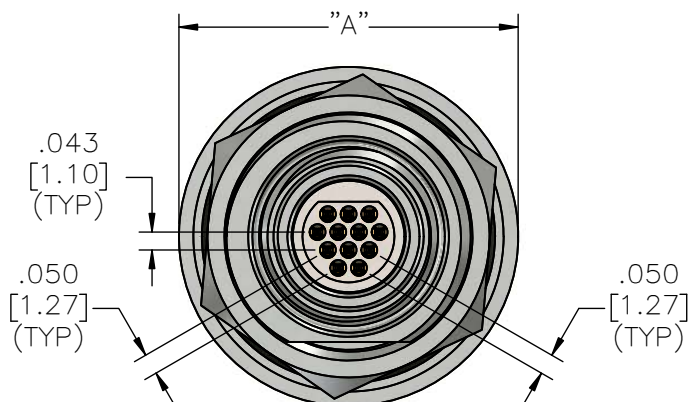
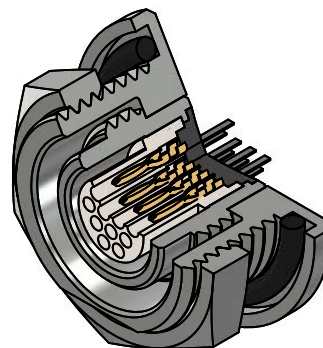
Metal - Pin - Straight Tail - Front Panel

MMCP-DD-FP



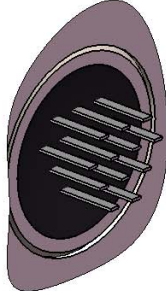
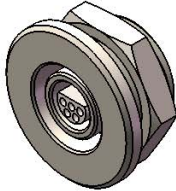
	English (IN)	Metric (MM)
Contacts	A	A
5	0.750	19.05
12	0.820	20.83
16	0.875	22.23
27	0.990	25.15
39	1.100	27.94

Metal - Pin - Threaded - Straight Tail - Rear Panel MMCP-DD-RP



	English (IN)	Metric (MM)
Contacts	A	A
5	0.750	19.05
12	0.820	20.83
16	0.875	22.23
27	0.990	25.15
39	1.100	27.94

METAL MICRO CIRCULAR STRAIGHT THRU-HOLE TAIL (TYPE DD)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
MMC Male (P - Pin) 	5	DD: Straight Thru-Hole  	<u>Standard</u> N: Nickel Plated Brass 	FP: Front Panel Mount 	OR O-Ring 
	12		<u>Non-Standard Options</u> BN: Black Nickel Plated Brass 	RP: Rear Panel Mount 	IP68 IP68
	16		P: Passivated Stainless Steel 		RH RoHS COMPLIANT 
	27		OX: Black Oxide Finished Steel 		
	EXAMPLE: MMCP-05-DD-RP-N-OR				

MICRO 360® Metal

Micro Circular Twistlock

Optional IP68 Rating



Electrical-Mechanical Specifications

- Performance: _____ Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513
- Contact Resistance: _____ 26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513
- Current Rating: _____ 3 Amps per MIL-DTL-83513
- Operating Temperature: _____ -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C
- Durability: _____ >2000 mating cycles min
- Insulation Resistance: _____ 5000 megohms @ 500 VDC
- Shock: _____ 50 g's with no discontinuities > 1 microsecond
- Vibration: _____ 20 g's with no discontinuities > 1 microsecond
- Mating/Unmating Force: _____ 3 oz (85 g) typical per contact
- Thermal Vacuum Outgassing (Space Class): _____ NASA SP-R-0022

Material Specifications

- Contact: _____ Copper Alloy Per MIL-DTL-83513
- Contact Finish: _____ Gold per ASTM B488, Type II, Class 1.27, Code C
Over Nickel Underplate
- Insulator: _____ Thermoplastic per MIL-M-24519
- Overmold: _____ Black Thermoplastic Polyurethane
- O-Ring: _____ BUNA-N
- Cable (Shielded): _____ 26 AWG, (7-34) Tinned Copper, PFA color coded, Black
Polyurethane Jacket
- Wire: _____ 26 AWG (7-34) PTFE, color coded

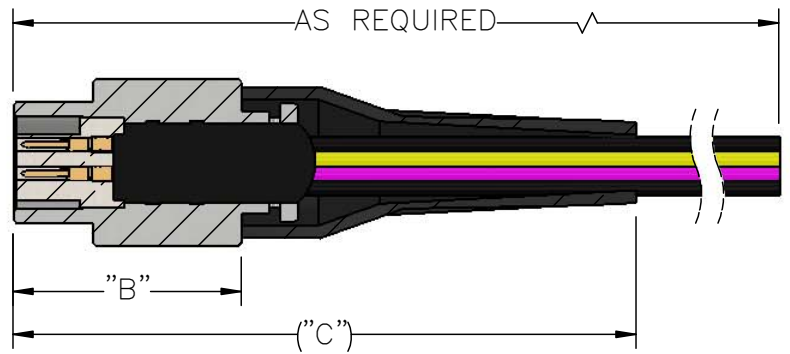
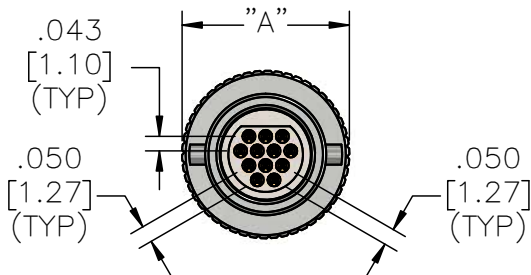
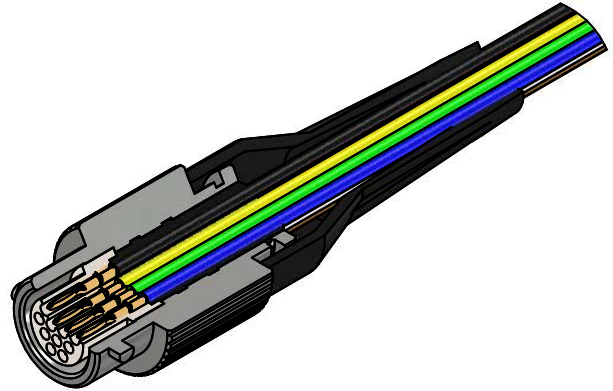
Shell Options

- Brass Alloy 360 1/2 Hard: _____ Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317
- Stainless Steel, 300 Series: _____ Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

* less resistance to salt spray test.

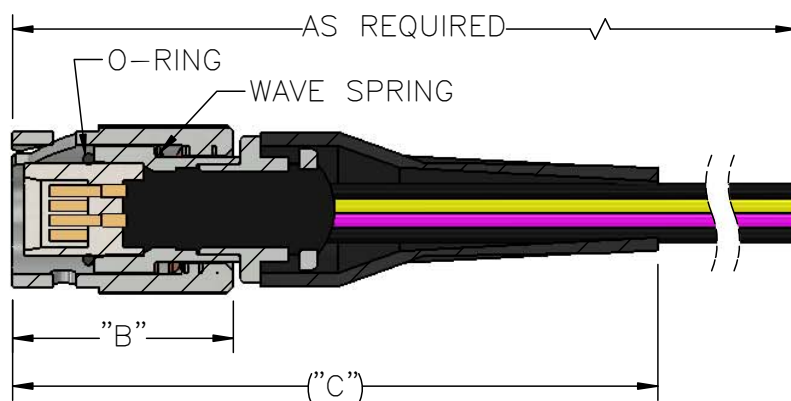
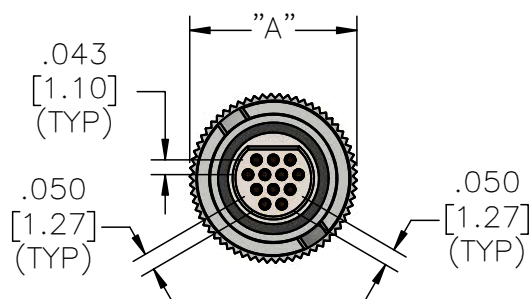
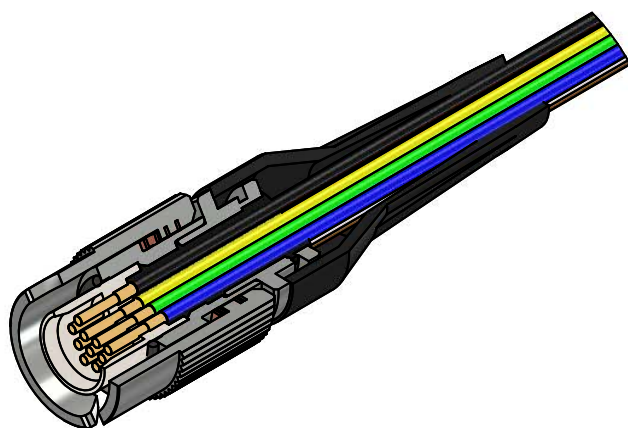
Metal - Pin - Twist-Lock - Wired - Inline - Strain Relief

TMCP-WD-IS-SR



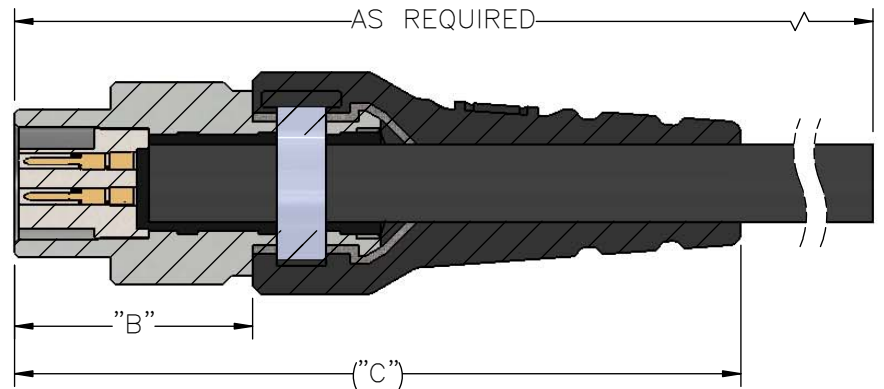
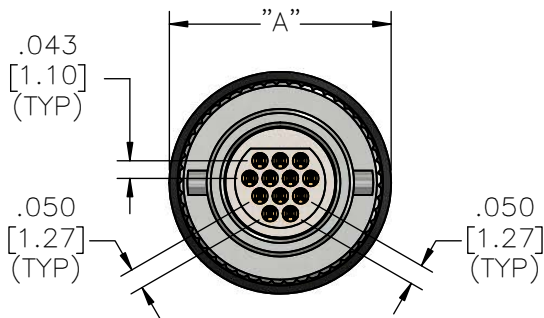
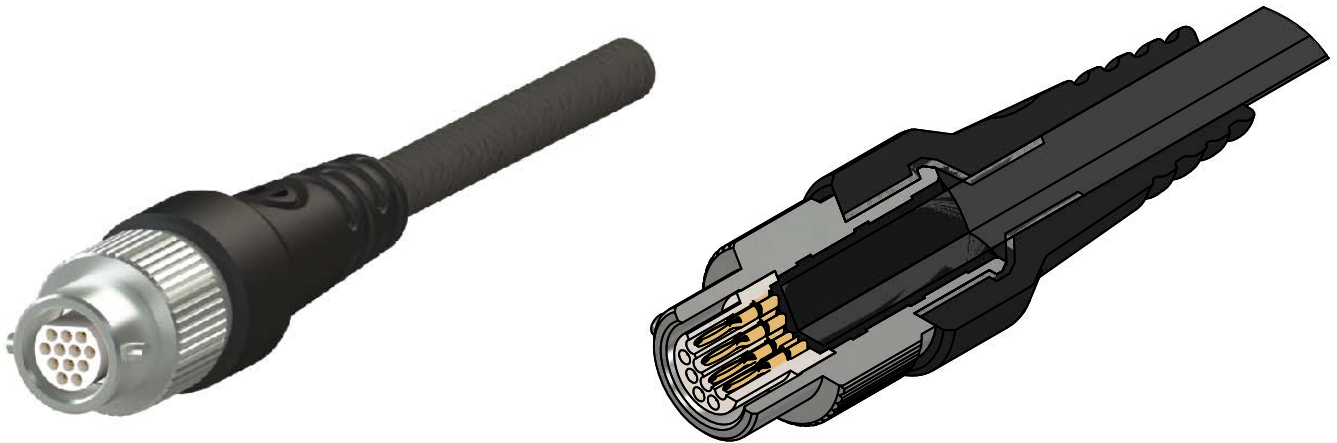
Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22228-001	5	0.450	0.680	1.900	11.43	17.27	48.26
A22230-001	12	0.500			12.70		
A22232-001	16	0.560			14.22		
A22234-001	27	0.610			15.49		
A22523-001	39	0.650	0.585	2.200	16.51	14.86	55.88

Metal - Socket - Twist-Lock - Wired - Inline - Strain Relief TMCS-WD-IS-SR



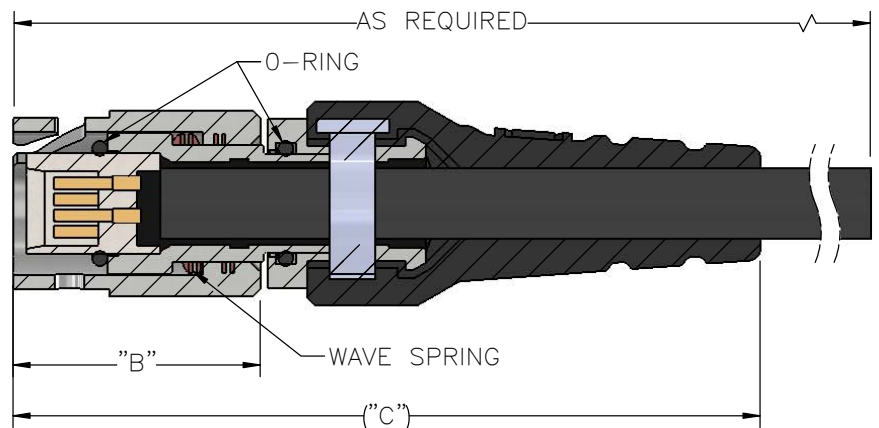
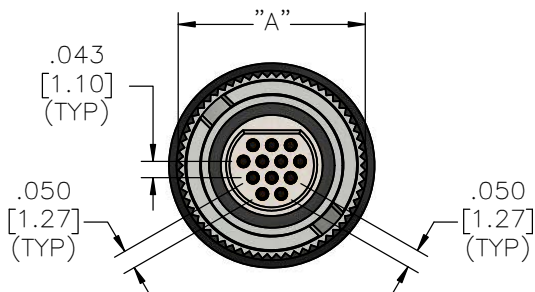
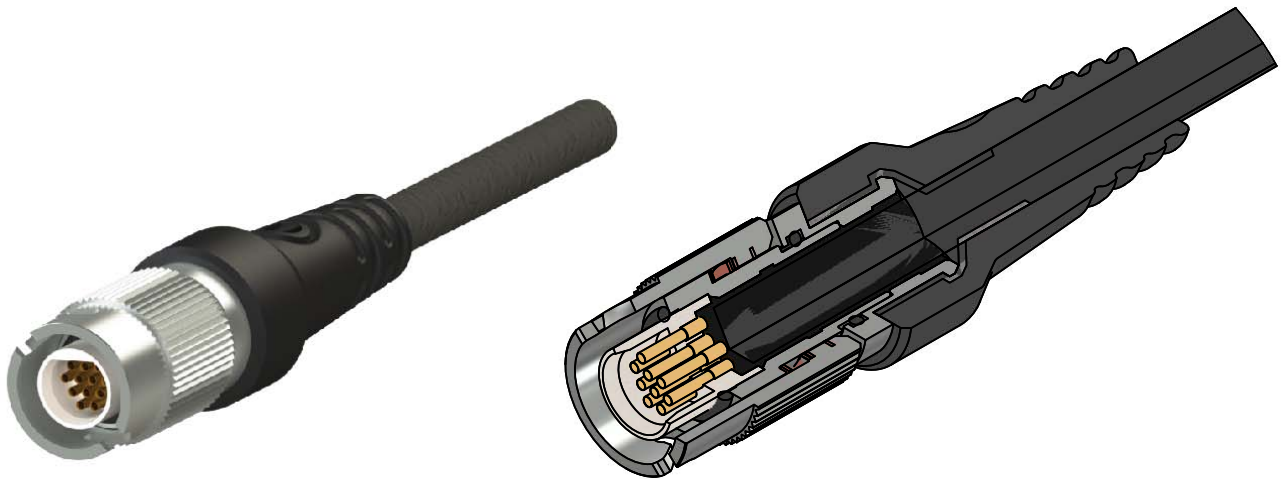
Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22229-001	5	0.450	0.660	1.900	11.43	16.76	48.26
A22231-001	12	0.500			12.70		
A22233-001	16	0.560			14.22		
A22235-001	27	0.620	0.630	2.100	15.75	16.00	53.34
A22533-001	39	0.670		2.400	17.02		60.96

Metal - Pin - Twist-Lock - Cabled - Overmold - Inline TMCP-WC-OM-IS



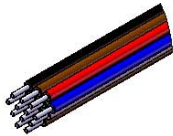
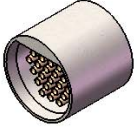
		English (IN)			Metric (MM)		
Part #	Contacts	A	B	C	A	B	C
A22352-001	5	0.510	0.590	1.740	12.95	14.99	44.20
A22350-001	12	0.550		1.790	13.97		45.47
A22348-001	16	0.600		1.890	15.24		48.01
A22346-001	27	0.670	0.580	1.980	17.02	14.73	50.29
-	39	Contact Omnetics for dimensions					

Metal - Socket - Twist-Lock - Cable - Overmold - Inline TMCS-WC-OM-IS



Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22351-001	5	0.510	0.660	1.930	12.95	16.76	49.02
A22349-001	12	0.550		1.980	13.97		50.29
A22347-001	16	0.600		2.060	15.24		52.32
A22345-001	27	0.670	0.630	2.150	17.02	16.00	54.61
-	39	Contact Omnetics for dimensions					

TWIST LOCK MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

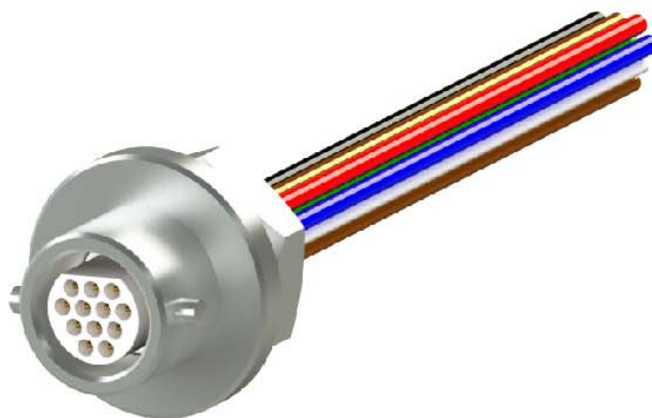
Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options, cont.
TMC	5	WD: Discrete Lead Wire	Standard	IS: Inline Shell (Shell Only)	C Color Coded
	12		N: Nickel Plated Brass		
Male (P - Pin)	16				
	27				
	39				
		WC: Cable	Non-Standard Options	Options	OR O-Ring
Female (S - Socket)			BN: Black Nickel Plated Brass	SR: Inline Shell w/ Strain Relief	
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	P: Passivated Stainless Steel		IP68
				ST: Inline Shell w/ Shrink Tube	IP68
					RH RoHS COMPLIANT
			OX: Black Oxide Finished Steel		
					<i>Non-Standard Option</i>
					OM Overmold (Contact Omnetics for Overmold Information & Availability)
					

EXAMPLE:
TMCS-12-WD-10.0-C-IS-N-ST-OR

MICRO 360® Metal

Micro Circular Twist-Lock Panel Mount

Optional IP68 Rating



Electrical-Mechanical Specifications

- Performance: _____ Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513
- Contact Resistance: _____ 26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513
- Current Rating: _____ 3 Amps per MIL-DTL-83513
- Operating Temperature: _____ -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C
- Durability: _____ >2000 mating cycles min
- Insulation Resistance: _____ 5000 megohms @ 500 VDC
- Shock: _____ 50 g's with no discontinuities > 1 microsecond
- Vibration: _____ 20 g's with no discontinuities > 1 microsecond
- Mating/Unmating Force: _____ 3 oz (85 g) typical per contact
- Thermal Vacuum Outgassing (Space Class): _____ NASA SP-R-0022

Material Specifications

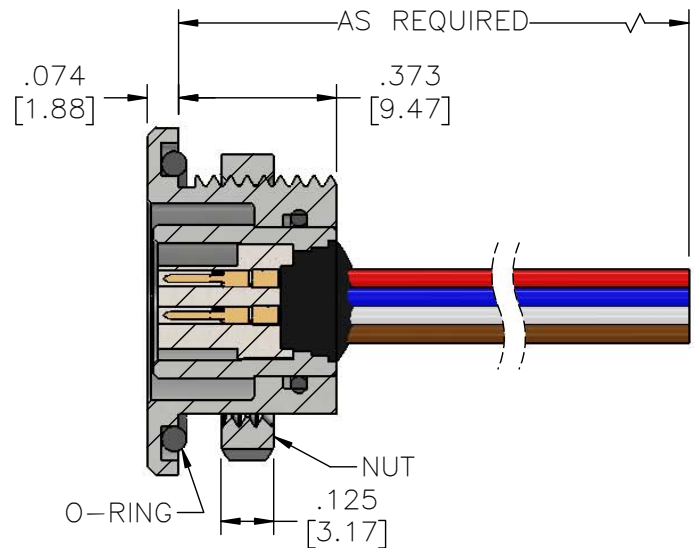
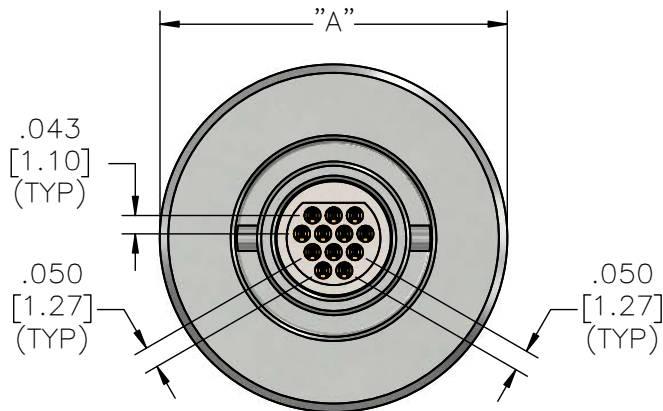
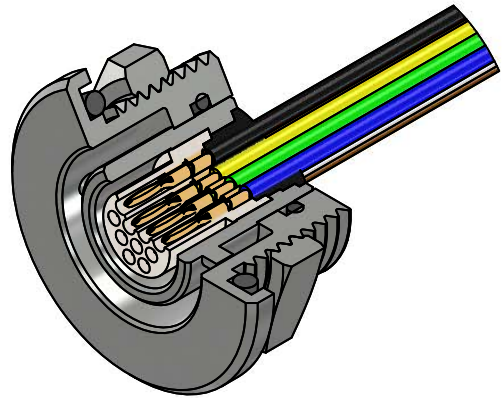
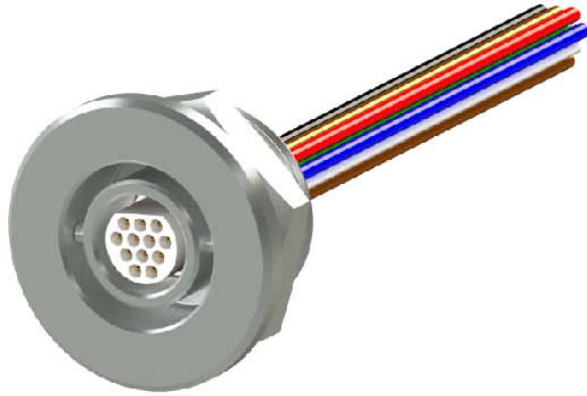
- Contact: _____ Copper Alloy Per MIL-DTL-83513
- Contact Finish: _____ Gold per ASTM B488, Type II, Class 1.27, Code C
Over Nickel Underplate
- Insulator: _____ Thermoplastic per MIL-M-24519
- Overmold: _____ Black Thermoplastic Polyurethane
- O-Ring: _____ BUNA-N
- Cable (Shielded): _____ 26 AWG, (7-34) Tinned Copper, PFA color coded, Black
Polyurethane Jacket
- Wire: _____ 26 AWG (7-34) PTFE, color coded

Shell Options

- Brass Alloy 360 1/2 Hard: _____ Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317
- Stainless Steel, 300 Series: _____ Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated
per SAE-AMS-2700

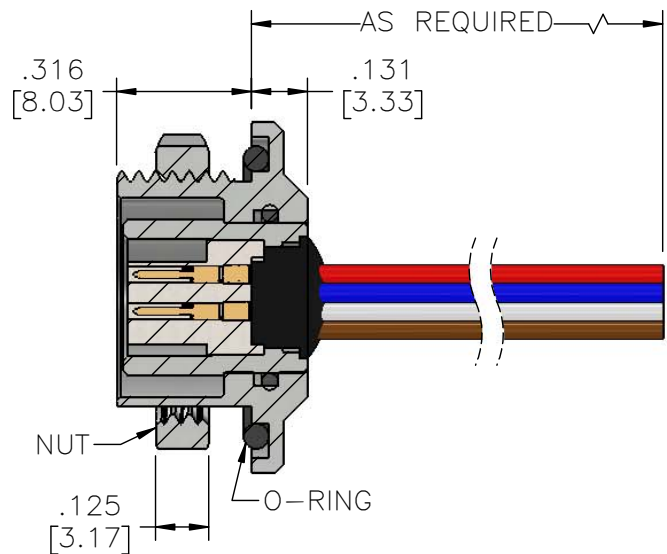
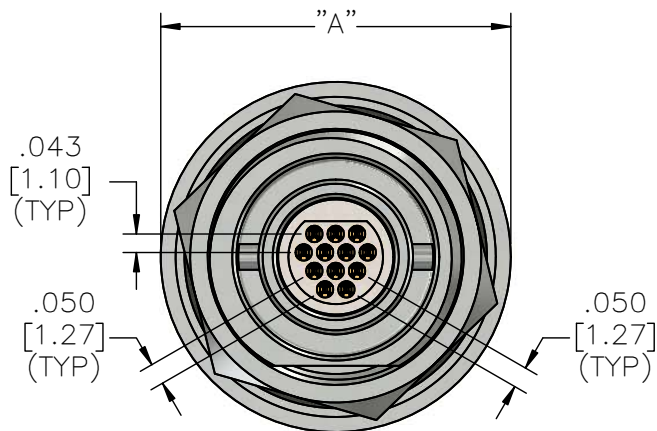
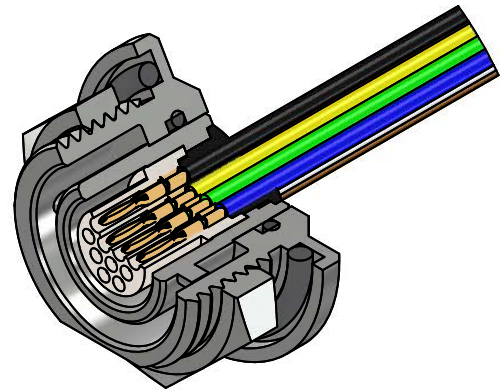
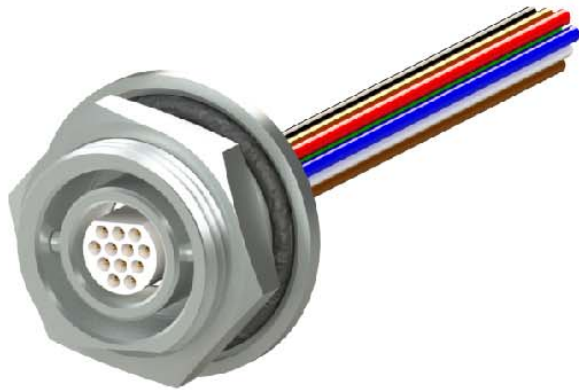
* less resistance to salt spray test.

Metal - Pin - Twist-Lock - Wired - Front Panel - IP68 TMCP-WD-FP-IP68



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22359-001	5	0.750	19.05
A22358-001	12	0.820	20.83
A22357-001	16	0.875	22.23
A22356-001	27	0.990	25.15
A22520-001	39	1.100	27.94

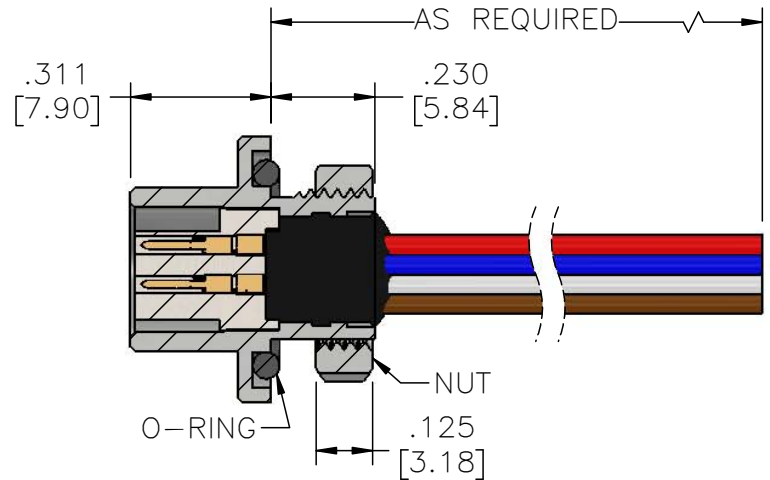
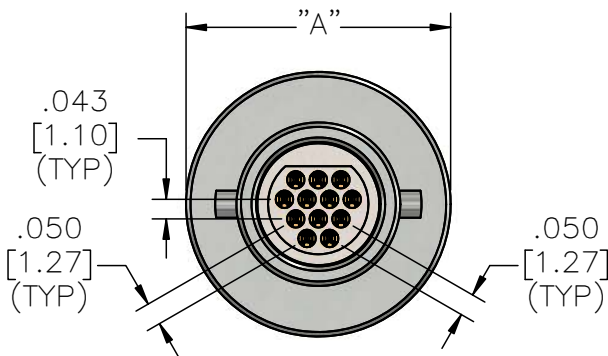
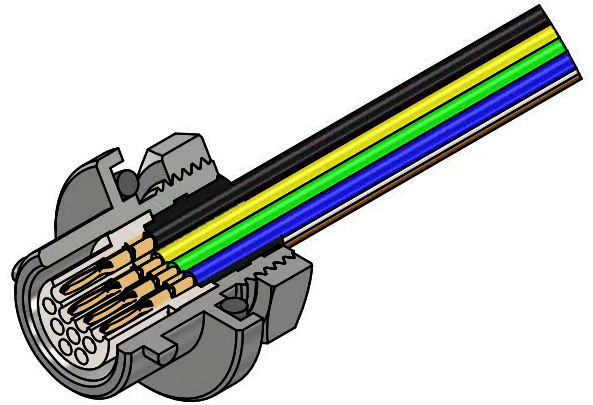
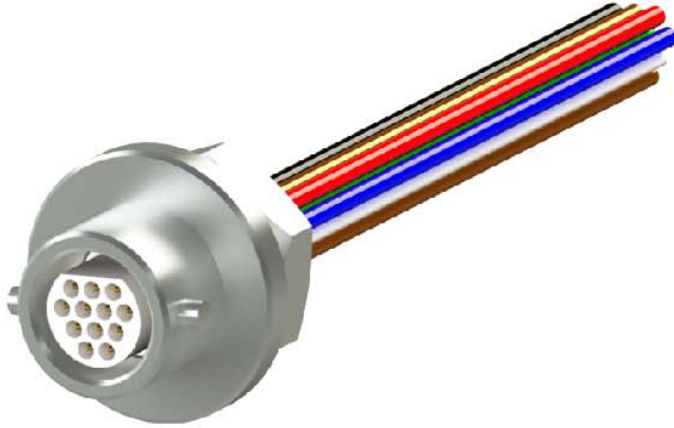
Metal - Pin - Twist-Lock - Cable - Rear Panel - IP68 TMCP-WD-RP-IP68



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22363-001	5	0.750	19.05
A22362-001	12	0.820	20.83
A22361-001	16	0.875	22.23
A22360-001	27	0.990	25.15
A22521-001	39	1.100	27.94

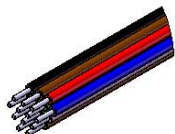
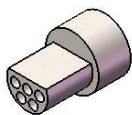
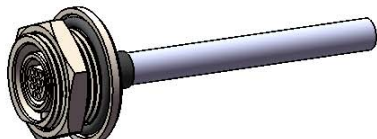
Metal - Pin - Twist-Lock - Wired - Protruding Panel - IP68

TMCP-WD-PP-IP68



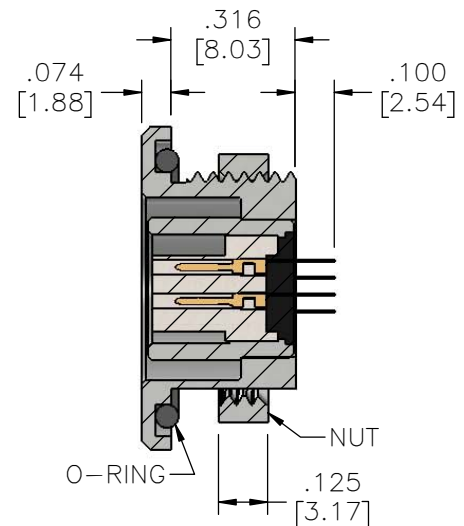
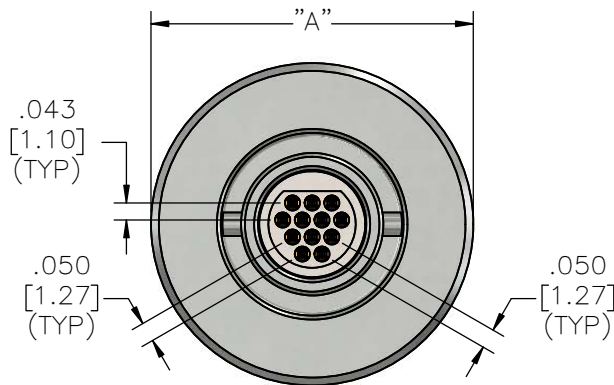
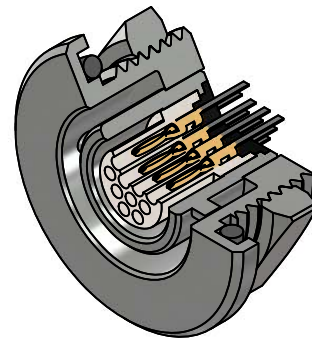
		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22367-001	5	0.541	13.74
A22366-001	12	0.586	14.88
A22365-001	16	0.662	16.81
A22364-001	27	0.742	18.85
-	39	Contact Omnetics for dimensions	

TWIST-LOCK MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
TMC	5	WD: Discrete Lead Wire  WC: Cable  Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	<u>Standard</u> N: Nickel Plated Brass  <u>Non-Standard Options</u> BN: Black Nickel Plated Brass  P: Passivated Stainless Steel  OX: Black Oxide Finished Steel 	FP: Front Panel Mount (Male Only)  RP: Rear Panel Mount (Male Only)  PP: Protruding Panel Mount (Male Only) 	C Color Coded  OR O-Ring  IP68 IP68 RH RoHS COMPLIANT 
	12				
	16				
	27				
	39				
Male (P - Pin) 					
EXAMPLE: TMCP-12-WC-10.0-N-RP-C-OR-ROHS 					

Metal - Pin - Twist-Lock - Straight Tail - Front Panel

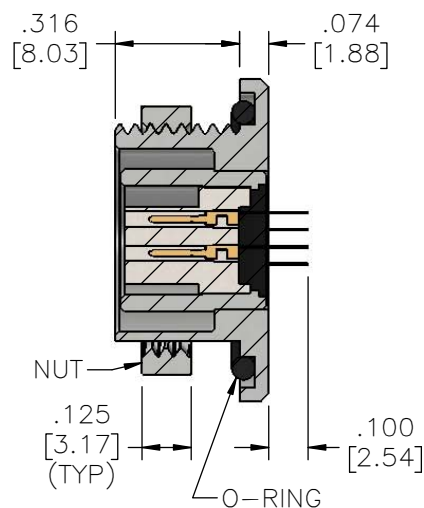
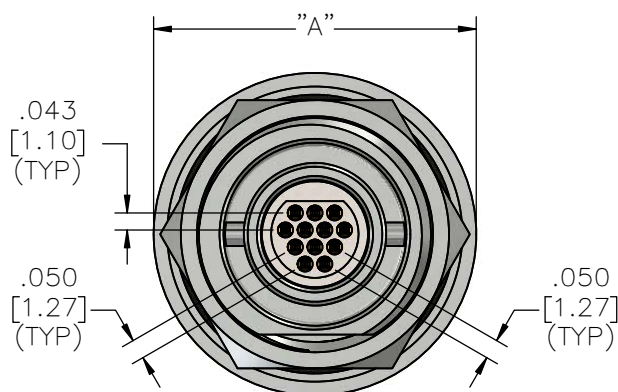
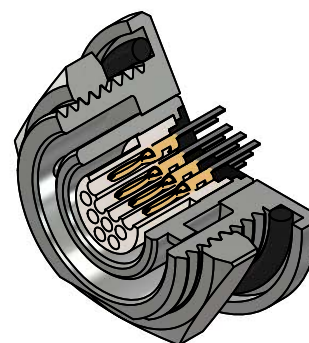
TMCP-DD-FP



	English (IN)	Metric (MM)
Contacts	A	A
5	0.750	19.05
12	0.820	20.83
16	0.875	22.23
27	0.990	25.15
39	Contact Omnetics for dimensions	

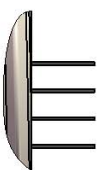
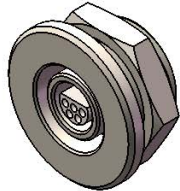
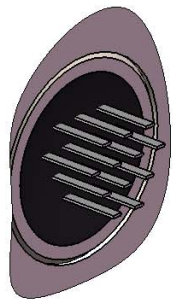
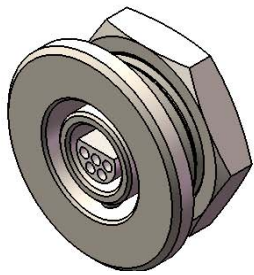
Metal - Pin - Twist-Lock - Straight Tail - Rear Panel

TMCP-DD-RP



	English (IN)	Metric (MM)
Contacts	A	A
5	0.750	19.05
12	0.820	20.83
16	0.875	22.23
27	0.990	25.15
39	Contact Omnetics for dimensions	

TWIST-LOCK MICRO CIRCULAR STRAIGHT THRU-HOLE (TYPE DD)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
TMC	5	DD: Straight Thru-Hole 	Standard	FP: Front Panel Mount 	OR O-Ring 
	12		N: Nickel Plated Brass 		
	16		Non-Standard Options		IP68
	27		BN: Black Nickel Plated Brass 	RP: Rear Panel Mount 	IP68
	39		P: Passivated Stainless Steel 		RH RoHS Compliant 
Male (P - Pin) 			OX: Black Oxide Finished Steel 		
EXAMPLE: TMCP-05-DD-FP-N-OR					

MICRO 360® Metal

Micro Circular Break Away

Optional IP68 Rating



Electrical-Mechanical Specifications

■ Performance:	Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513
■ Contact Resistance:	26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513
■ Current Rating:	3 Amps per MIL-DTL-83513
■ Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy) IP68 overmold -55°C to 85°C
■ Durability:	500 mating cycles min
■ Insulation Resistance:	5000 megohms @ 500 VDC
■ Shock:	50 g's with no discontinuities > 1 microsecond
■ Vibration:	20 g's with no discontinuities > 1microsecond
■ Mating/Unmating Force:	3 oz (85 g) typical per contact
■ Thermal Vacuum Outgassing (Space Class):	NASA SP-R-0022

Material Specifications

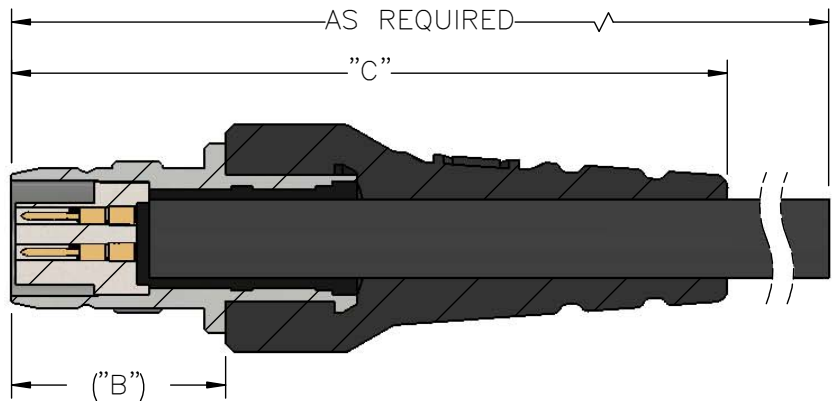
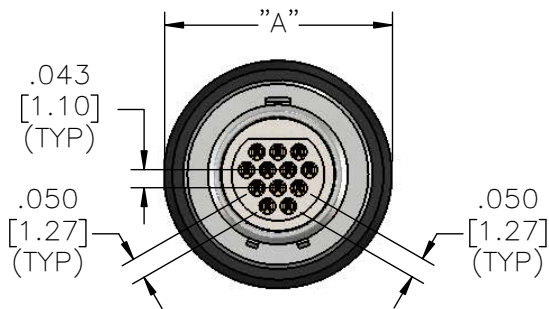
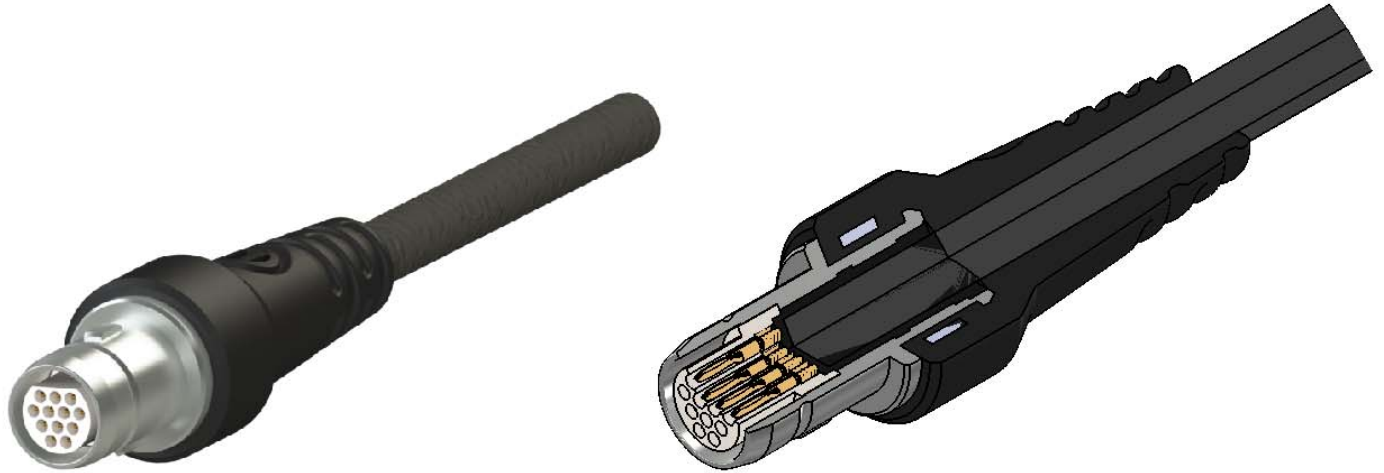
■ Contact:	Copper Alloy Per MIL-DTL-83513
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Overmold:	Black Thermoplastic Polyurethane
■ O-Ring:	BUNA-N
■ Cable (Shielded):	26 AWG, (7-34) Tinned Copper, PFA color coded, Black Polyurethane Jacket
■ Wire:	26 AWG (7-34) PTFE, color coded

Shell Options

■ Brass Alloy 360 1/2 Hard:	Electroless Nickel per SAE-AMS-2404 Black Nickel per MIL-P-18317
■ Stainless Steel, 300 Series:	Passivated per SAE-AMS-2700 Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

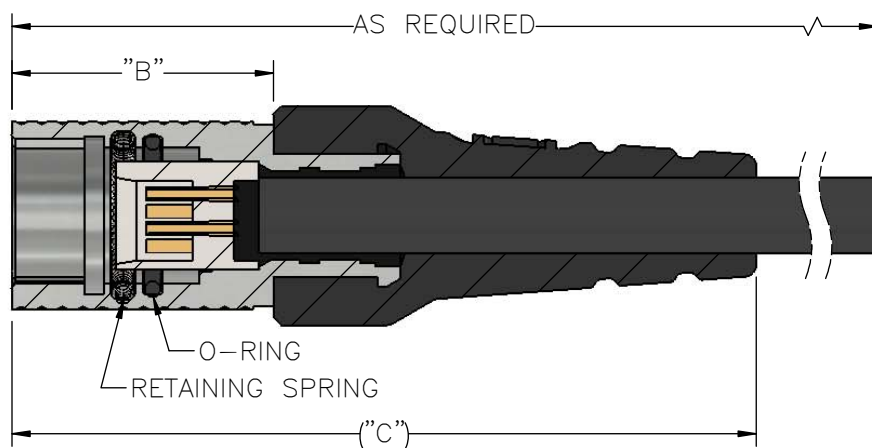
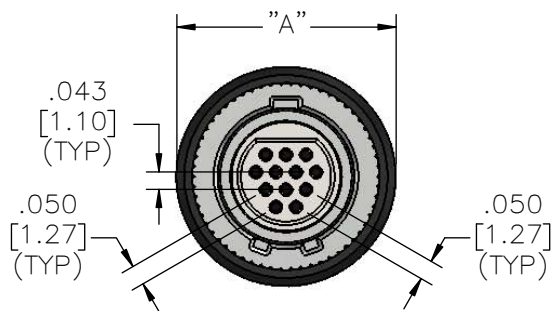
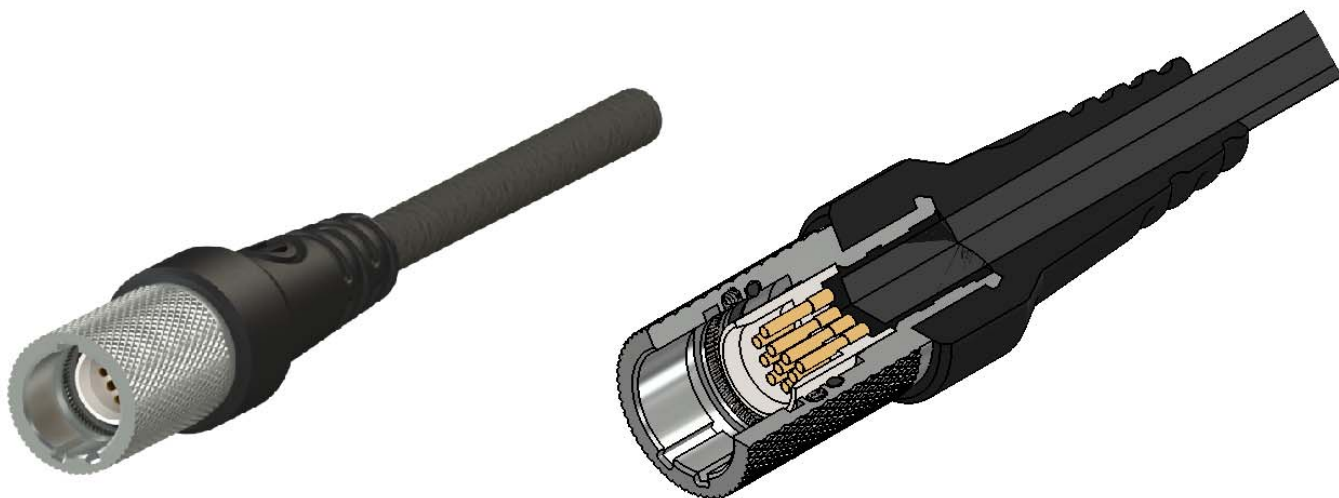
* less resistance to salt spray test.

Metal - Pin - Keyed Break Away - Cabled - Overmold - Inline KBMP-WC-OM-IS



Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22458-001	5	0.510	0.510	1.660	12.95	12.95	42.16
A22465-001	12	0.550		1.710	13.97		43.43
A22472-001	16	0.600		1.810	15.24		45.97
A22479-001	27	0.670	0.500	1.900	17.02	12.70	48.26
A22548-001	39	0.720			18.29		

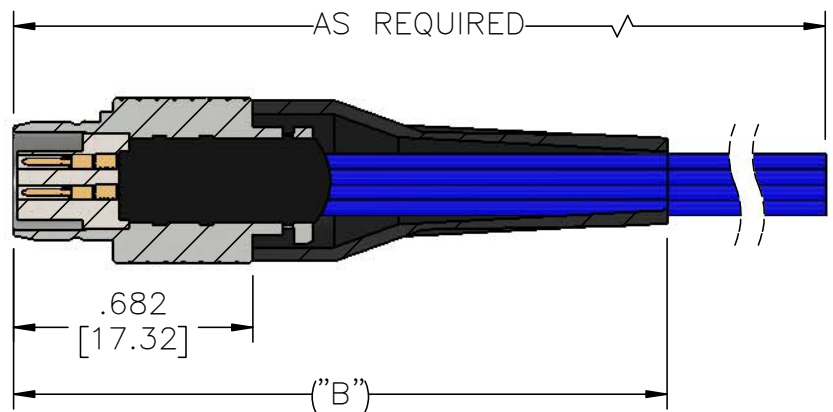
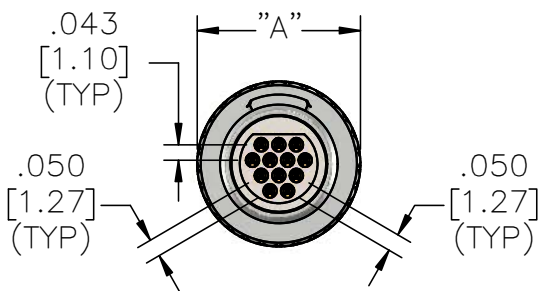
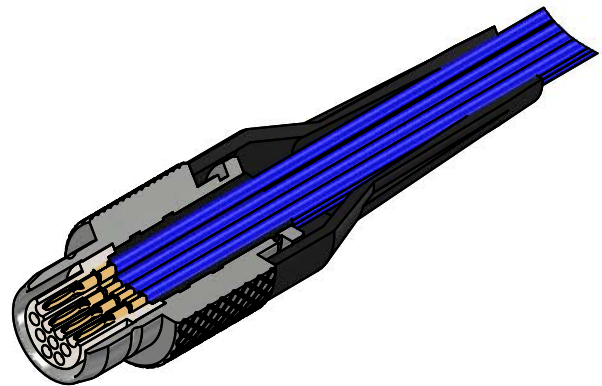
Metal - Socket - Keyed Break Away - Cabled - Overmold - Inline KBMS-WC-OM-IS



Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A22455-001	5	0.510	0.650	1.800	12.95	16.51	45.72
A22462-001	12	0.550		1.850	13.97		46.99
A22469-001	16	0.600		1.950	15.24		49.53
A22476-001	27	0.670	0.640	2.040	17.02	16.26	51.82
A22552-001	39	0.720			18.29		

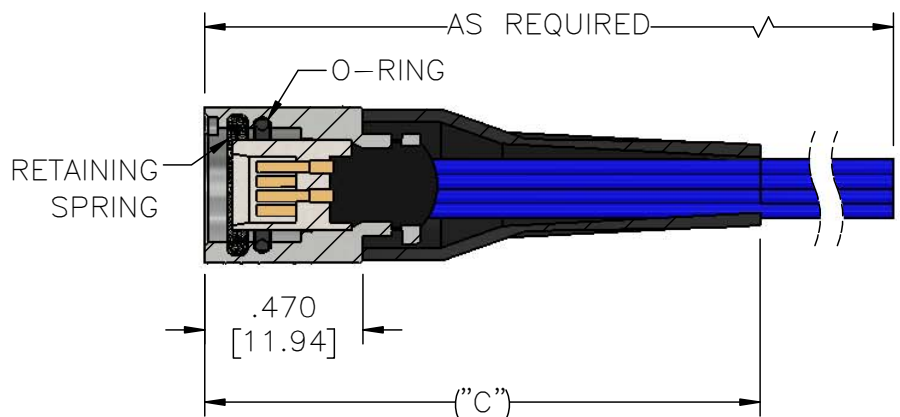
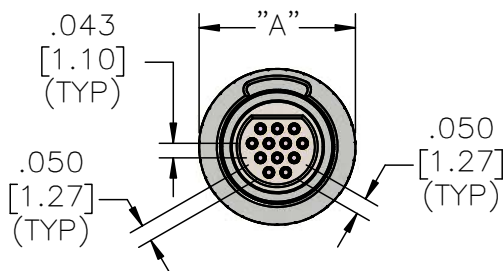
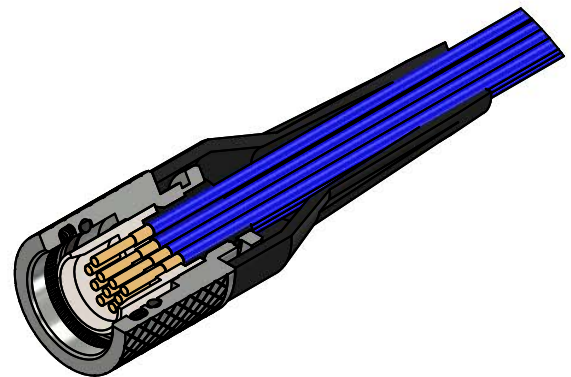
Metal - Pin - Break Away - Wired - Inline - Strain Relief

BAMP-WD-IS-SR



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A22304-001	5	0.430	1.900	10.92	48.26
A22311-001	12	0.470		11.94	
A22318-001	16	0.530		13.46	
A22325-001	27	0.610	2.100	15.49	53.34
A22538-001	39	0.650	2.300	16.51	58.42

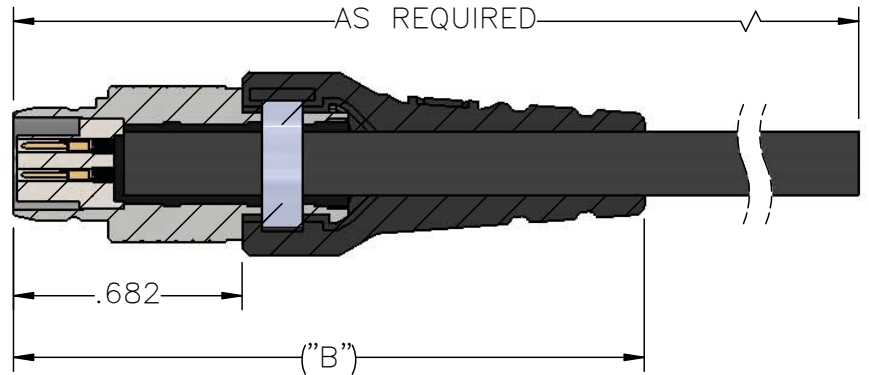
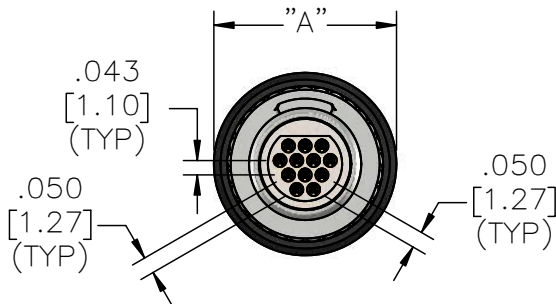
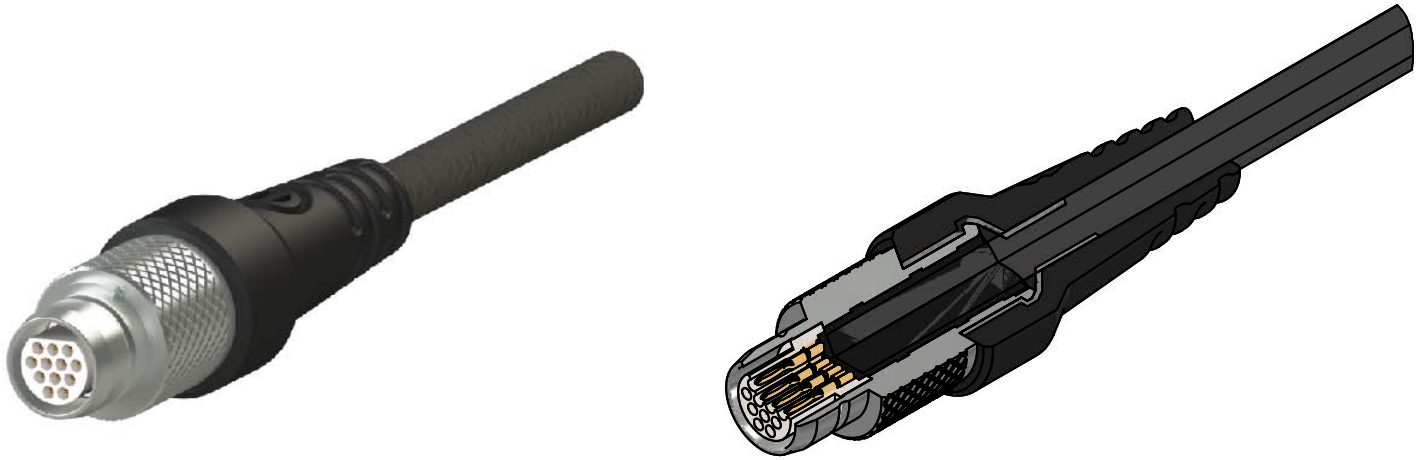
Metal - Socket - Break Away - Wired - Inline - Strain Relief BAMS-WD-IS-SR



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A22301-001	5	0.430	1.700	10.92	43.18
A22308-001	12	0.460	0.470	11.68	11.94
A22315-001	16	0.530	1.700	13.46	43.18
A22322-001	27	0.610	1.900	15.49	48.26
A22542-001	39	0.650	2.100	16.51	53.34

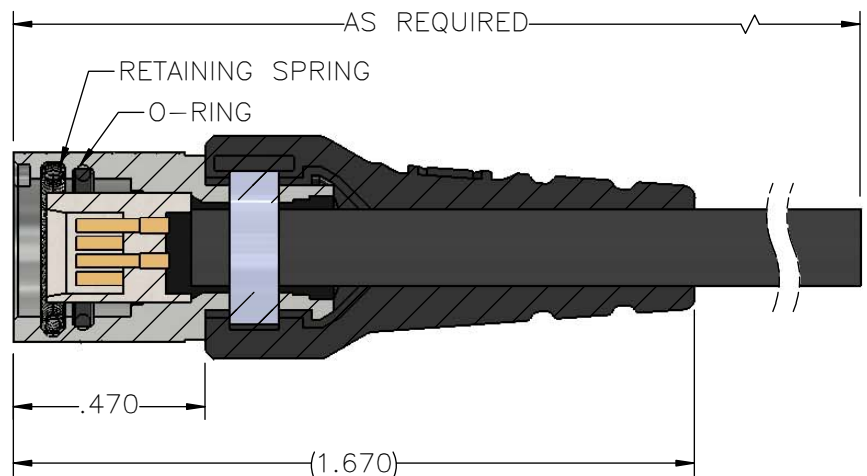
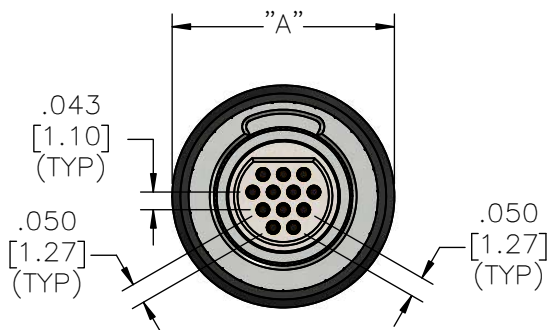
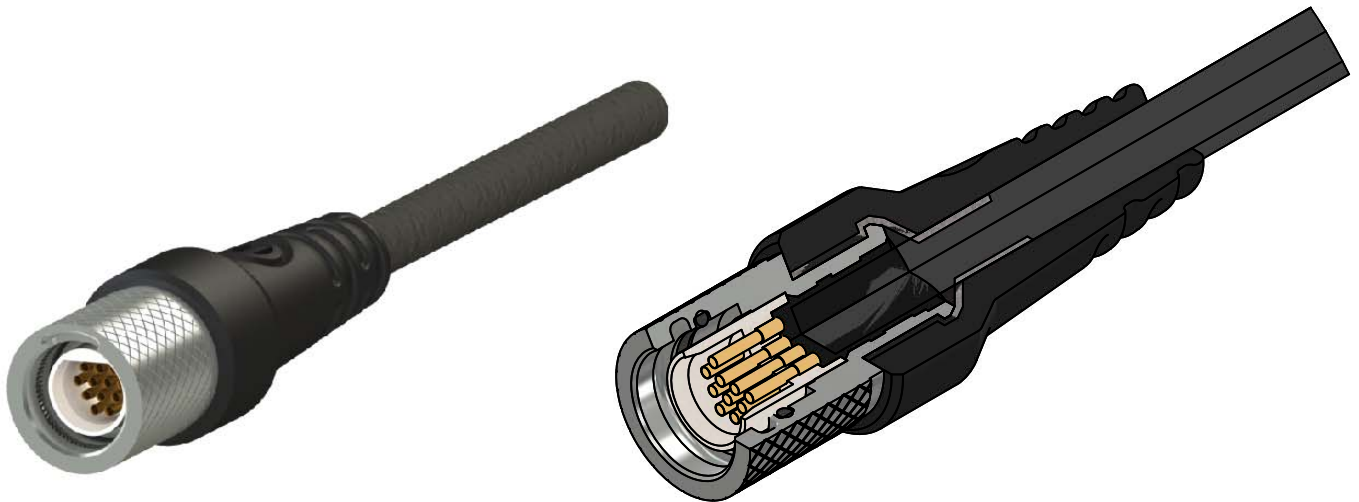
Metal - Pin - Break Away - Cable - Overmold - Inline - IP68

BAMP-WC-OM-IS-IP68



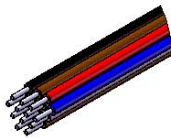
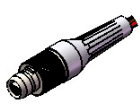
		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22344-001	5	0.510	12.95
A22342-001	12	0.550	13.97
A22340-001	16	0.600	15.24
A22338-001	27	0.670	17.02
-	39	Contact Omnetics for dimensions	

Metal - Socket - Break Away - Cable - Overmold - Inline - IP68 BAMS-WC-OM-IS-IP68



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22343-001	5	0.510	12.95
A22341-001	12	0.550	13.97
A22339-001	16	0.600	15.24
A22337-001	27	0.670	17.02
-	39	0.720	18.29

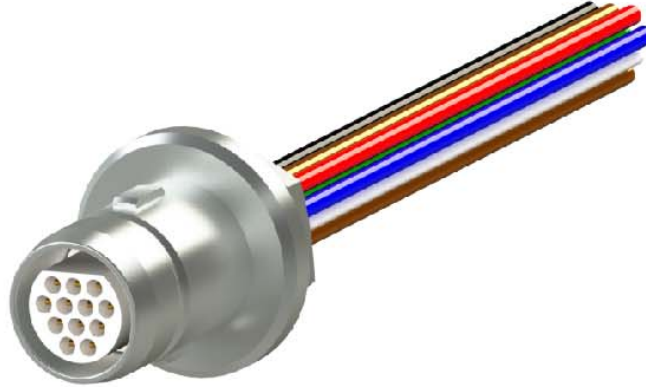
QUICK DISCONNECT BREAK AWAY MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
KBM (Keyed Break Away)	5	WD: Discrete Lead Wire 	Standard N: Nickel Plated Brass 	IS: Inline Shell (Shell Only) Male  Female 	C Color Coded 
BAM (Standard Break Away)	12				
	16				
	27				
	39	WC: Cable 	Non-Standard Options BN: Black Nickel Plated Brass 	SR: Inline Shell w/ Strain Relief 	OM Overmold (Contact Omnetics for Overmold Information & Availability) 
Male (P - Pin)					
Female (S - Socket)					
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	P: Passivated Stainless Steel 	ST: Inline Shell w/ Shrink Tube 	IP68 IP68 RH RoHS COMPLIANT 
			OX: Black Oxide Finished Steel 		
EXAMPLE: KBMS-16-WC-10.0-C-N-IS-OM-IP68					

MICRO 360® Metal

Micro Circular Break Away Panel Mount

Optional IP68 Rating



Electrical-Mechanical Specifications

- Performance: _____ Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-83513
- Contact Resistance: _____ 26 Milliohm Max (65mV Drop Max) @ 2.5 Amps per MIL-DTL-83513
- Current Rating: _____ 3 Amps per MIL-DTL-83513
- Operating Temperature: _____ -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C
- Durability: _____ 500 mating cycles min
- Insulation Resistance: _____ 5000 megohms @ 500 VDC
- Shock: _____ 50 g's with no discontinuities > 1 microsecond
- Vibration: _____ 20 g's with no discontinuities > 1 microsecond
- Mating/Unmating Force: _____ 3 oz (0.085 kg) max per contact
- Thermal Vacuum Outgassing (Space Class): _____ NASA SP-R-0022

Material Specifications

- Contact: _____ Copper Alloy Per MIL-DTL-83513
- Contact Finish: _____ Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
- Insulator: _____ Thermoplastic per MIL-M-24519
- Overmold: _____ Black Thermoplastic Polyurethane
- O-Ring: _____ BUNA-N
- Cable (Shielded): _____ 26 AWG, (7-34) Tinned Copper, PFA color coded, Black Polyurethane Jacket
- Wire: _____ 26 AWG (7-34) PTFE, color coded

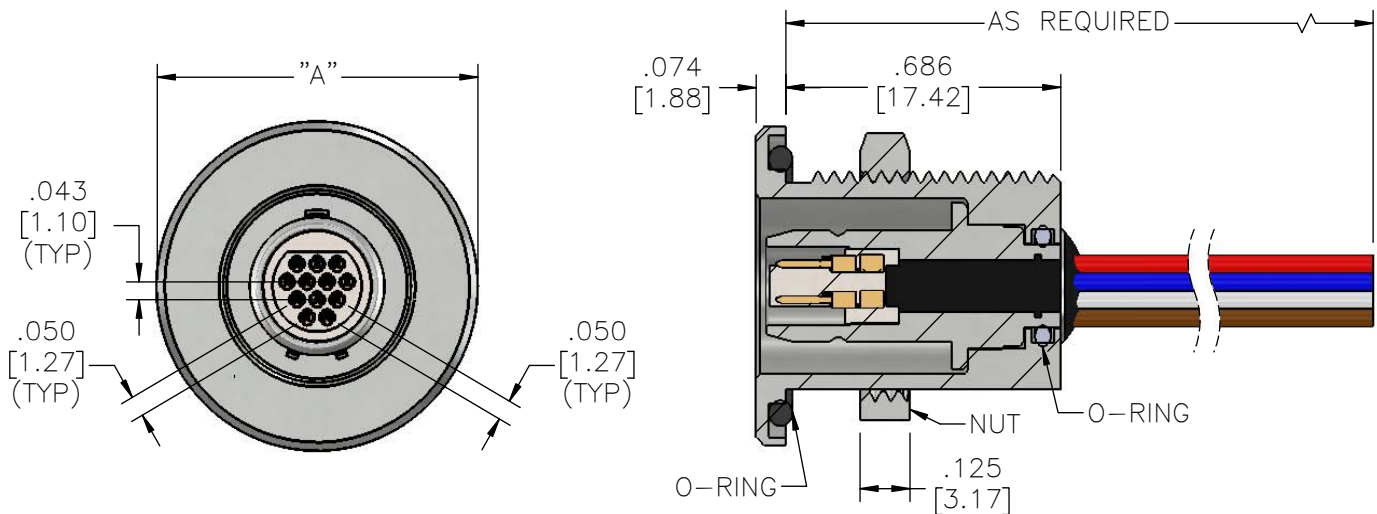
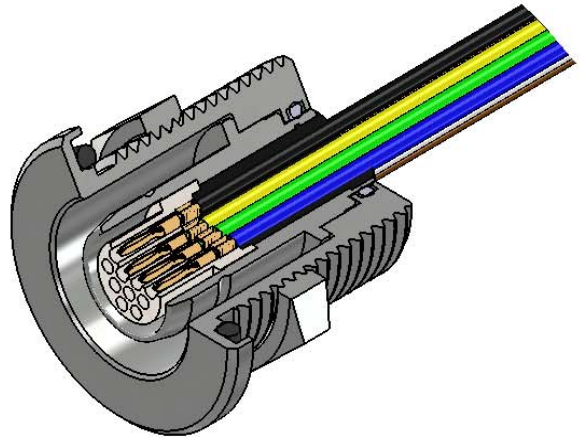
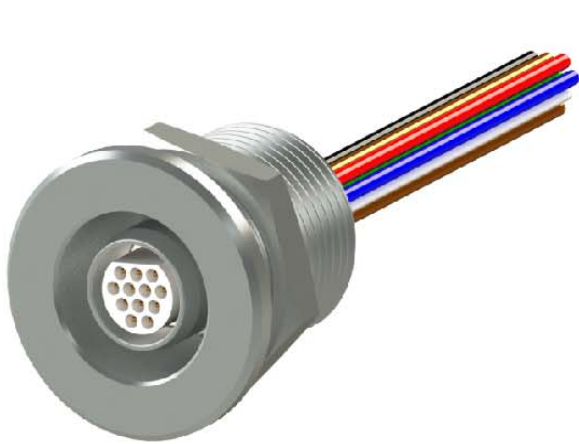
Shell Options

- Brass Alloy 360 1/2 Hard: _____ Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317
- Stainless Steel, 300 Series: _____ Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

* less resistance to salt spray test.

Metal - Pin - Keyed Break Away - Wired - Front Panel

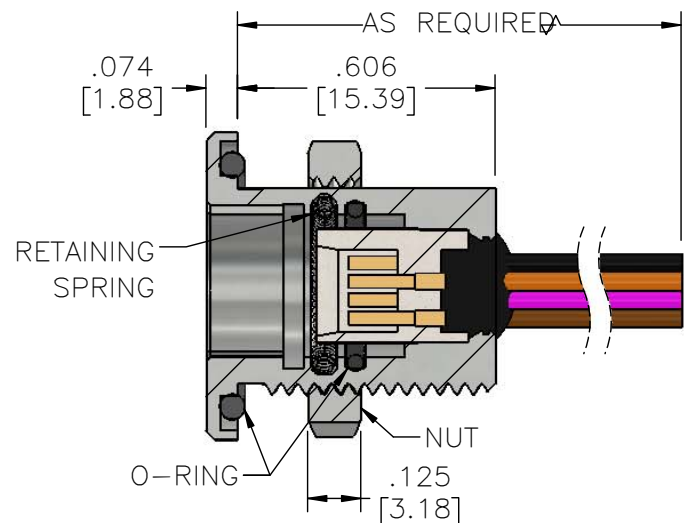
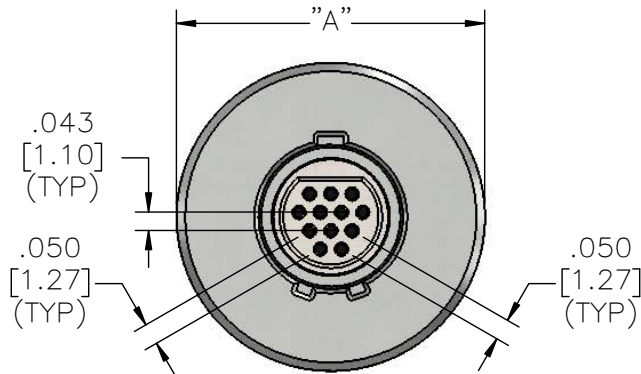
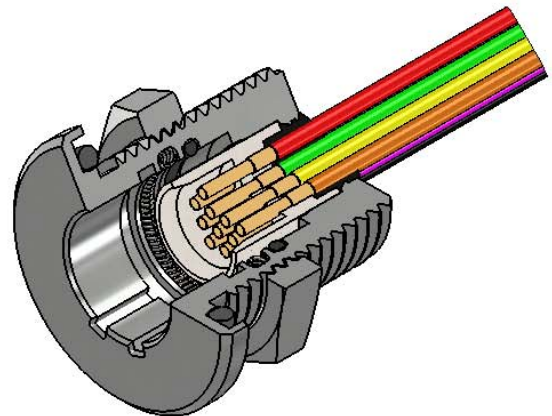
KBMP-WD-FP



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22460-001	5	0.765	19.43
A22467-001	12	0.800	20.32
A22474-001	16	0.865	21.97
A22481-001	27	0.945	24.00
A22544-001	39	1.000	25.40

Metal - Socket - Keyed Break Away - Wired- Front Panel

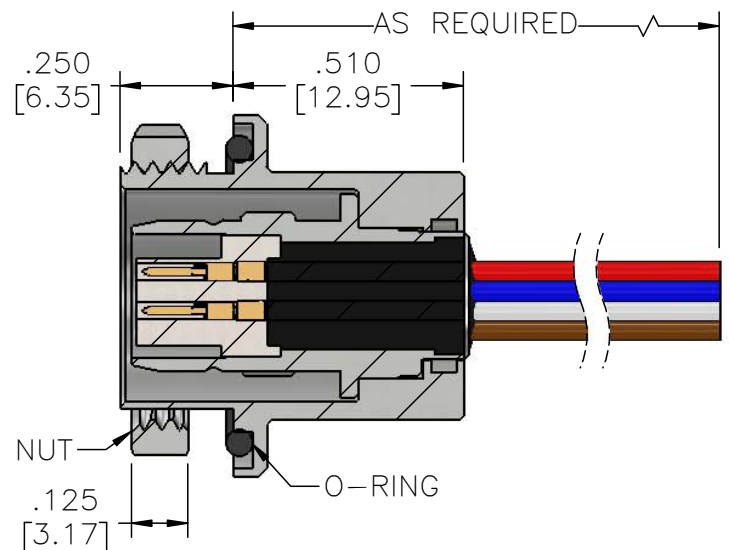
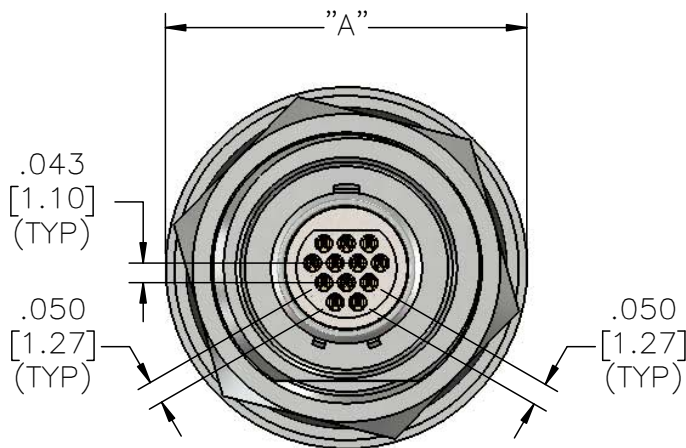
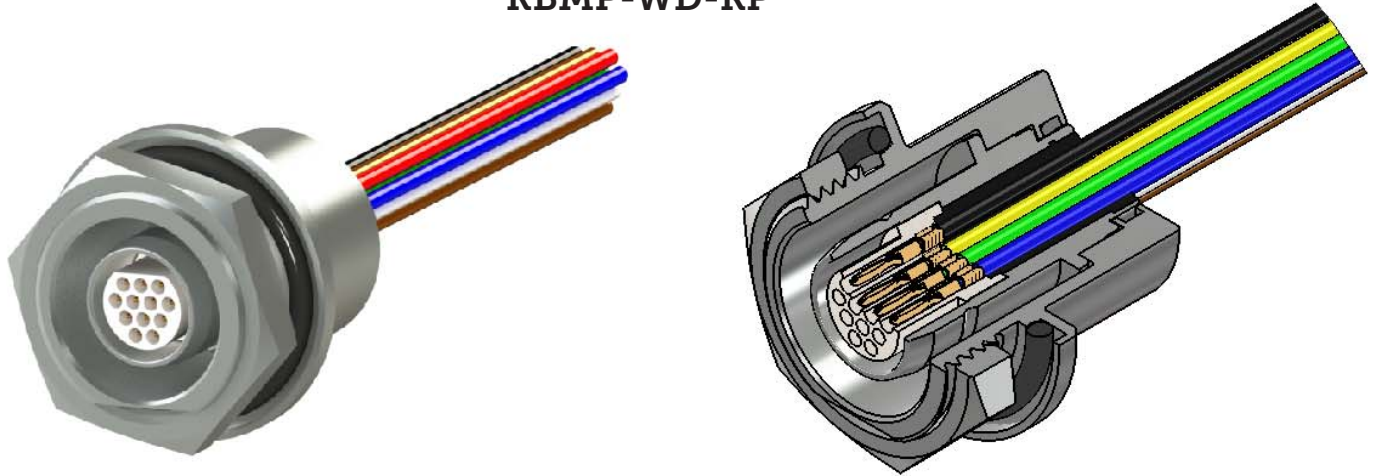
KBMS-WD-FP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22456-001	5	0.680	17.27
A22463-001	12	0.725	18.42
A22470-001	16	0.765	19.43
A22477-001	27	0.865	21.97
A22549-001	39	0.950	24.13

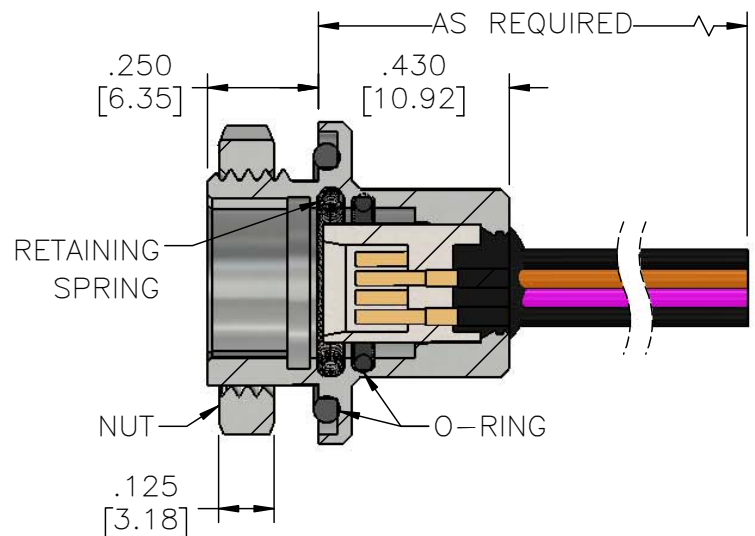
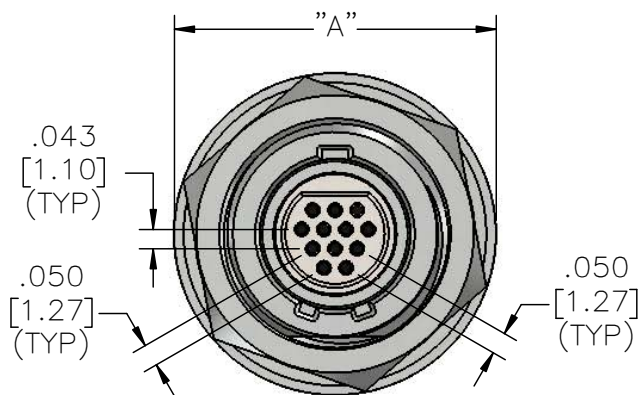
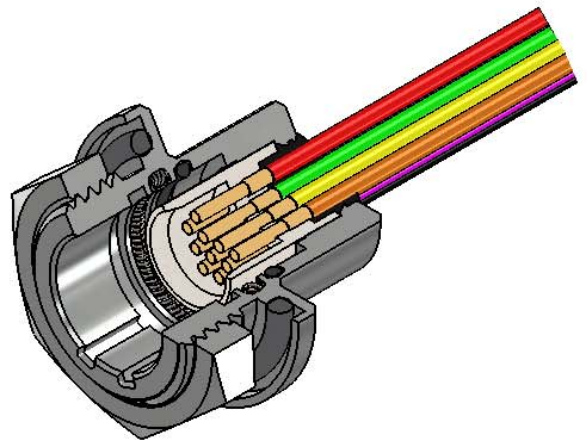
Metal - Pin - Keyed Break Away - Wired - Rear Panel

KBMP-WD-RP



Part #	Contacts	English (IN)	Metric (MM)
		A	A
A22461-001	5	0.765	19.43
A22468-001	12	0.800	20.32
A22475-001	16	0.865	21.97
A22482-001	27	0.945	24.00
A22545-001	39	1.000	25.40

Metal - Socket - Keyed Break Away - Wired - Rear Panel KBMS-WD-RP

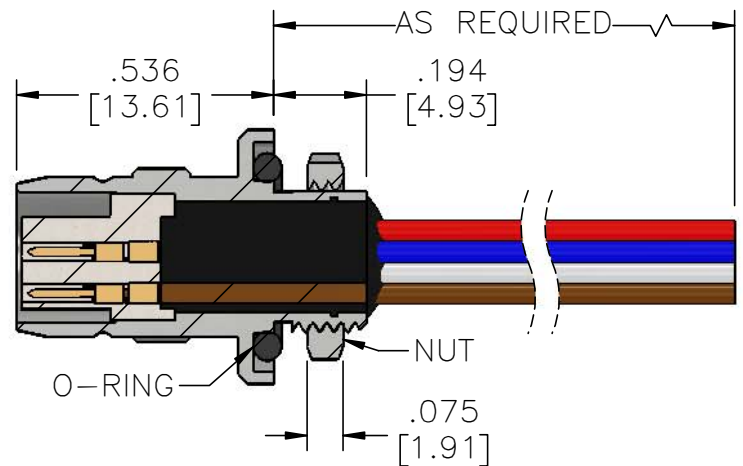
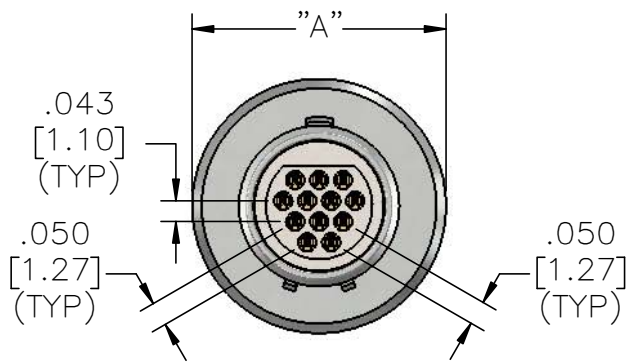
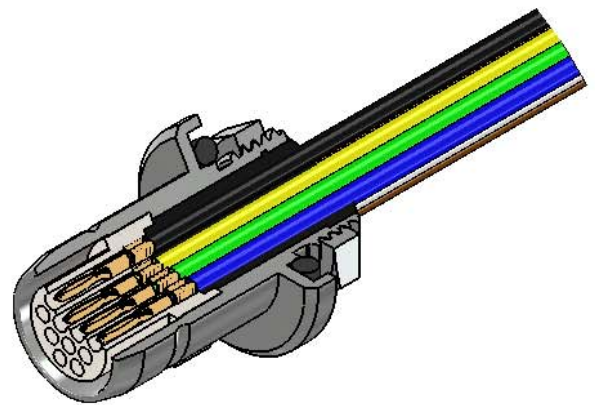
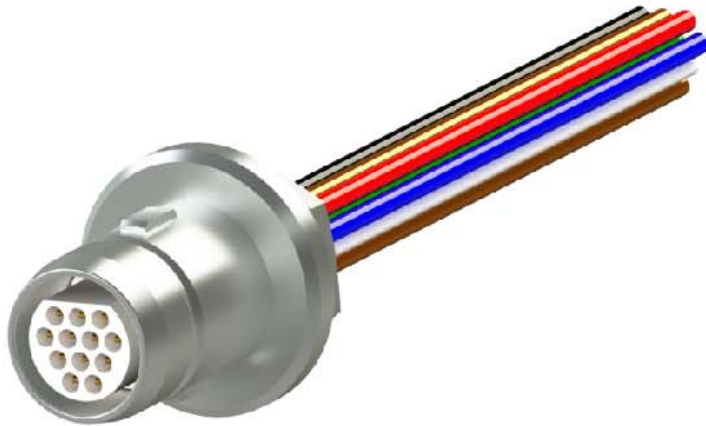


English (IN) Metric (MM)

Part #	Contacts	A	A
A22457-001	5	0.680	17.27
A22464-001	12	0.725	18.42
A22471-001	16	0.765	19.43
A22478-001	27	0.865	21.97
A22550-001	39	0.950	24.13

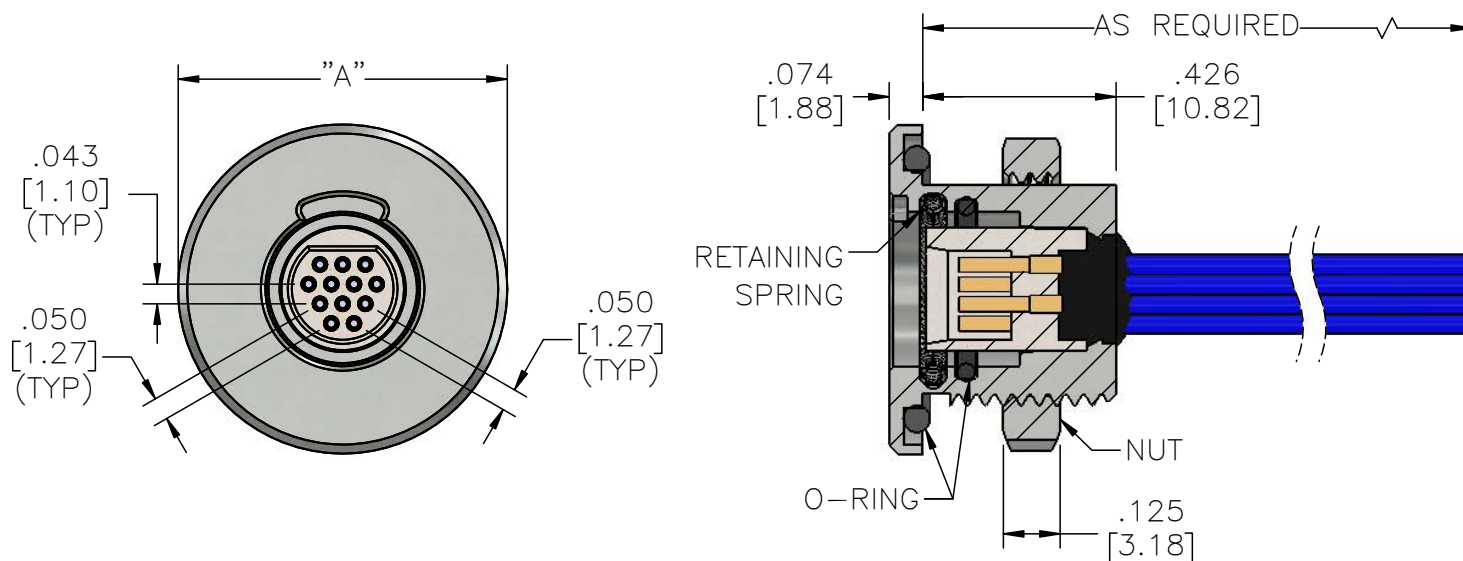
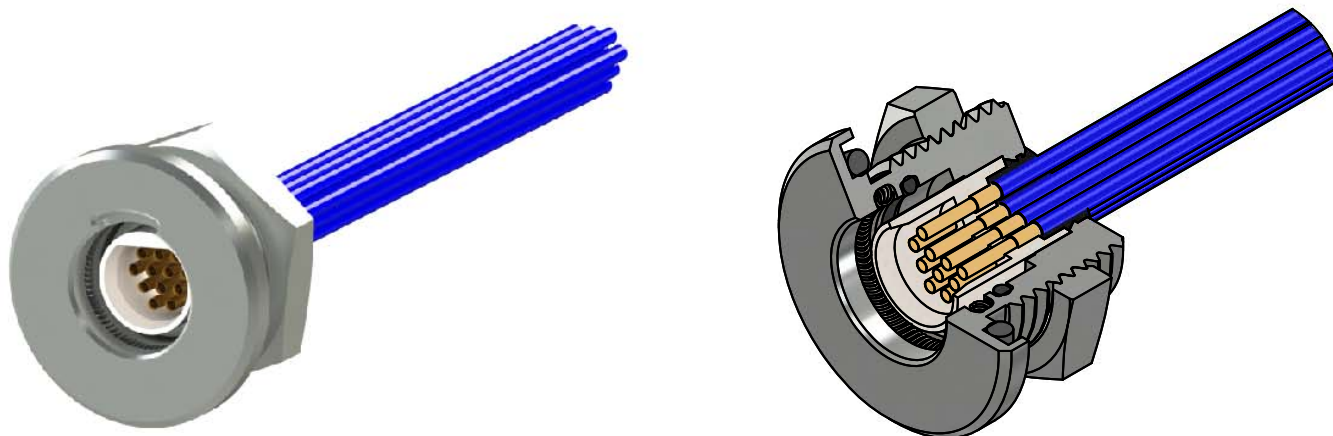
Metal - Pin - Keyed Break Away - Wired - Protruding Panel

KBMP-WD-PP



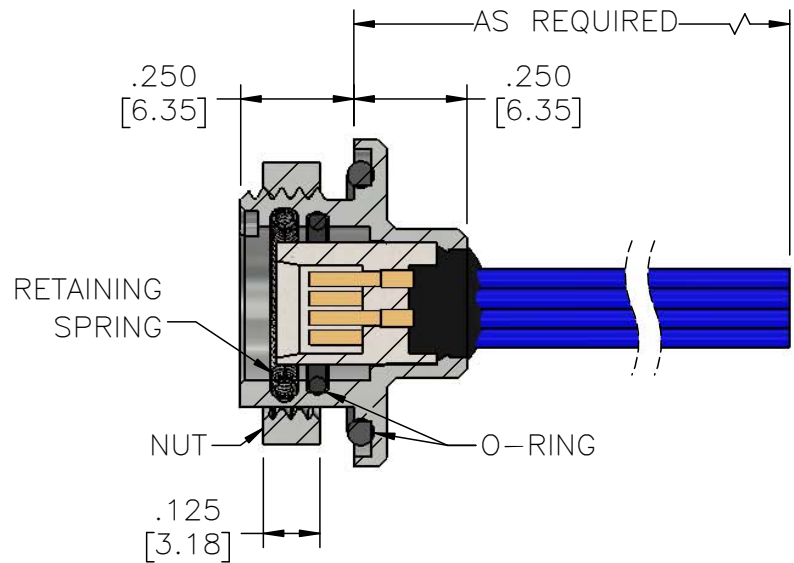
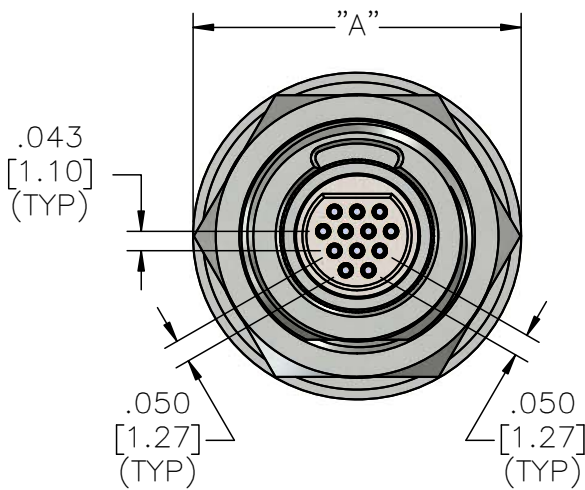
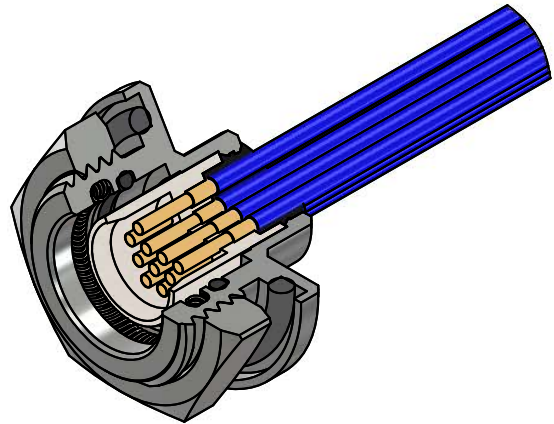
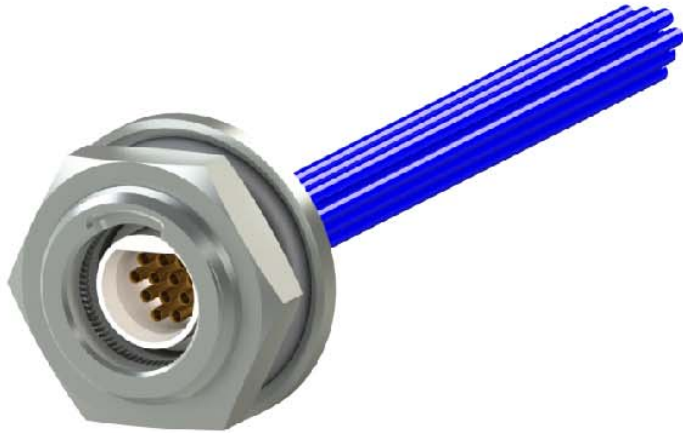
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		A	A
A22459-001	5	0.490	12.45
A22466-001	12	0.530	13.46
A22473-001	16	0.620	15.75
A22480-001	27	0.655	16.64
A22546-001	39	0.735	18.67

Metal - Socket - Break Away - Wired - Front Panel BAMS-WD-FP



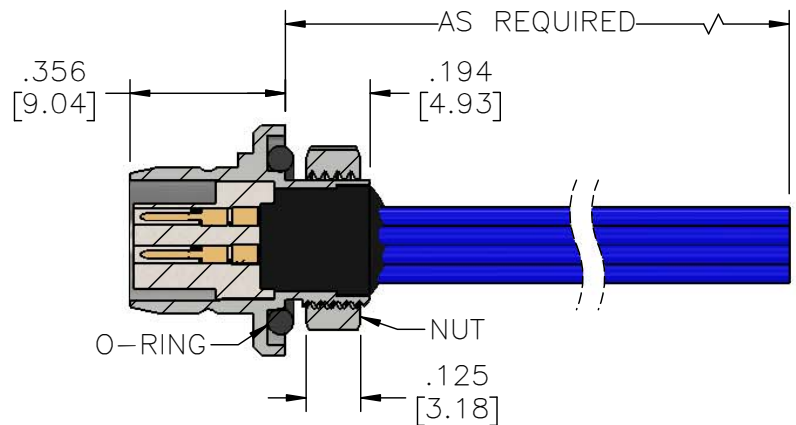
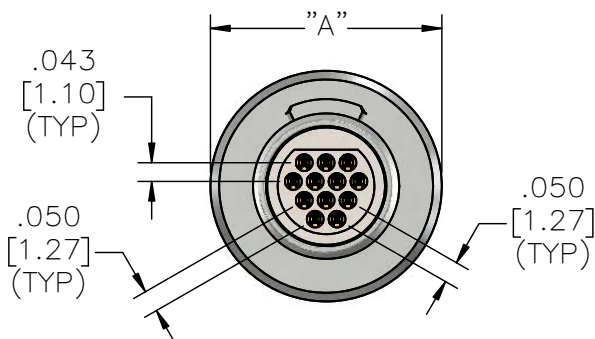
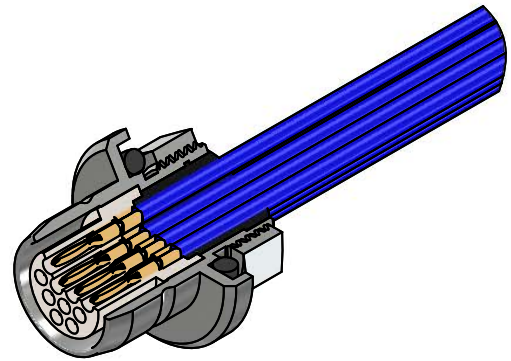
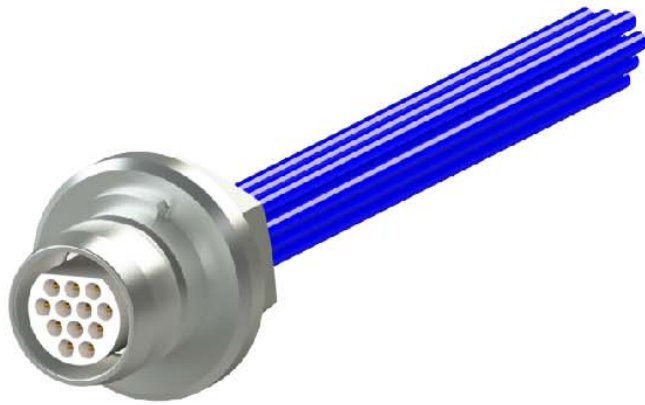
		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22431-001	5	0.680	17.27
A22436-001	12	0.725	18.42
A22441-001	16	0.765	19.43
A22446-001	27	0.865	21.97
A22540-001	39	0.945	24.00

Metal - Socket - Break Away - Wired - Rear Panel BAMS-WD-RP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A22432-001	5	0.680	17.27
A22437-001	12	0.725	18.42
A22442-001	16	0.765	19.43
A22447-001	27	0.865	21.97
A22541-001	39	0.915	23.24

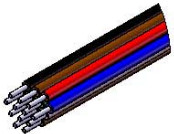
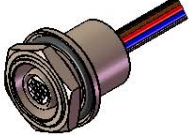
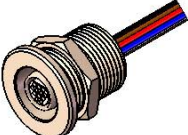
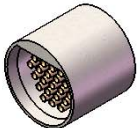
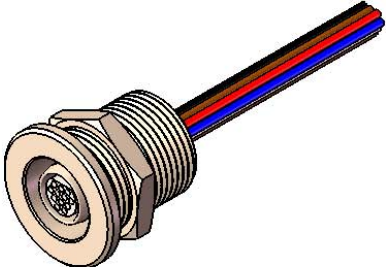
Metal - Pin - Break Away - Wired - Protruding Panel BAMP-WD-PP



English (IN) Metric (MM)

Part #	Contacts	A	A
A22435-001	5	0.490	12.45
A22440-001	12	0.530	13.46
A22445-001	16	0.620	15.75
A22450-001	27	0.655	16.64
A22537-001	39	0.745	18.92

BREAK AWAY MICRO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
KBM (Keyed Break Away)	5 12 16	WD: Discrete Lead Wire	Standard N: Nickel Plated Brass	RP: Rear Panel Mount	C Color Coded
BAM (Standard Break Away)	27 39				
Male (P - Pin)		WC: Cable	Non-Standard Options BN: Black Nickel Plated Brass		OR O-Ring
				FP: Front Panel Mount	
Female (S - Socket)		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	P: Passivated Stainless Steel		RH RoHS COMPLIANT
					
			OX: Black Oxide Finished Steel		IP68
				PP: Protruding Panel Mount (male only)	IP68
					
					

EXAMPLE:
KBMP-12-WD-10.0-C-FP-N-OR

NANO 360® Plastic

Nano Circular Discrete Leadwire/ Cable (Type WD/WC)



Electrical-Mechanical Specifications

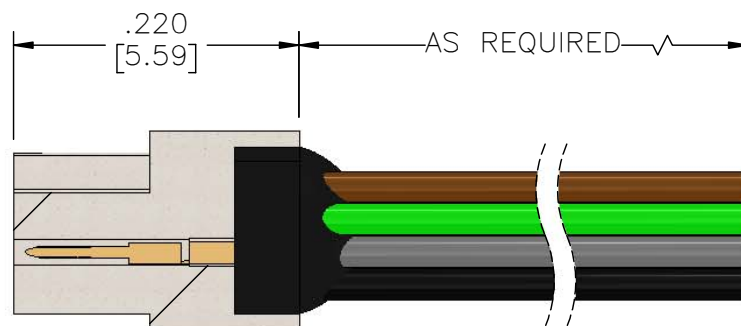
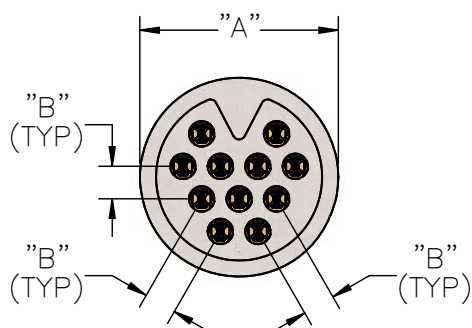
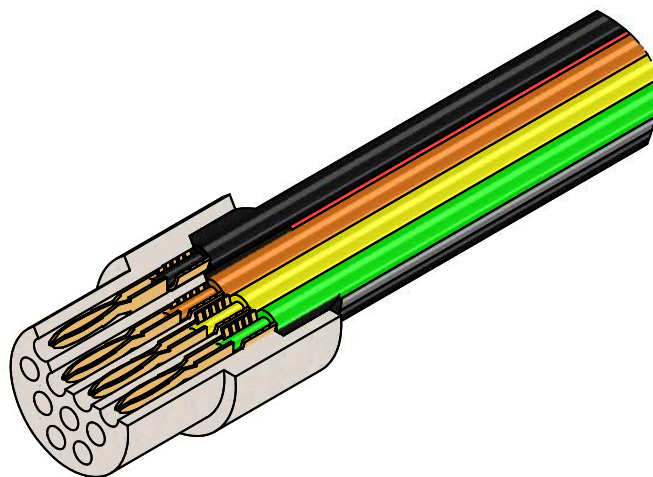
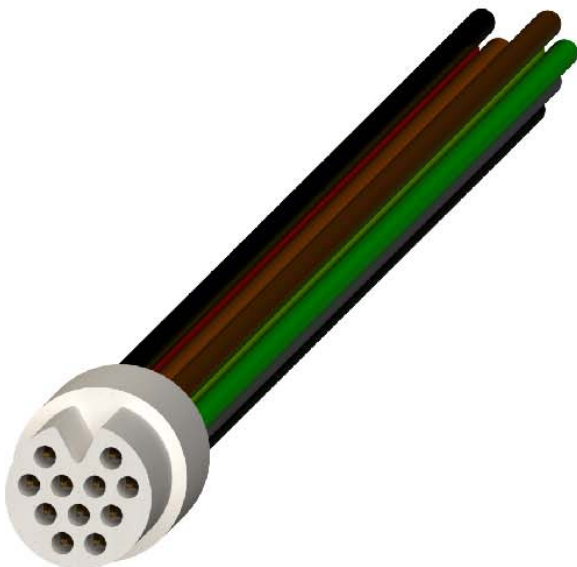
■ Operating Temperature:	-55°C to 125°C
■ Dielectric Withstand Voltage:	250 VAC RMS @sea level
■ Contact Resistance:	71 milliohms(71 mV) Max @1 Amps
■ Current Rating:	1 Amps per contact
■ Durability:	>2000 Mating Cycles min
■ Insulation Resistance:	5000 megohms @ 100 VDC
■ Shock:	100 g's with no discontinuities > 10 nanosecond
■ Vibration:	20 g's with no discontinuities > 10 nanosecond
■ Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% max CVCM
■ Mating/Unmating Force:	2.5 oz (71 g) typical per contact

Material Specifications

■ Contact:	Copper Alloy per MIL-DTL-32139
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Wire:	32 AWG (7-40) PTFE, color coded

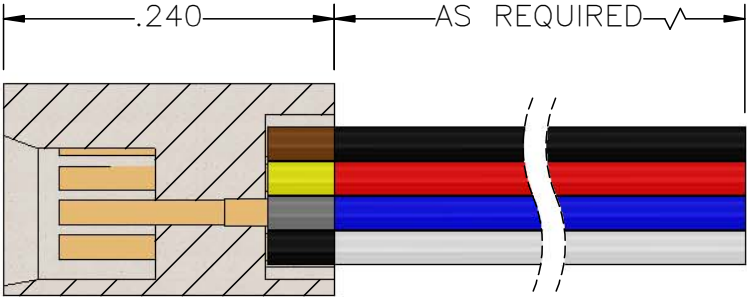
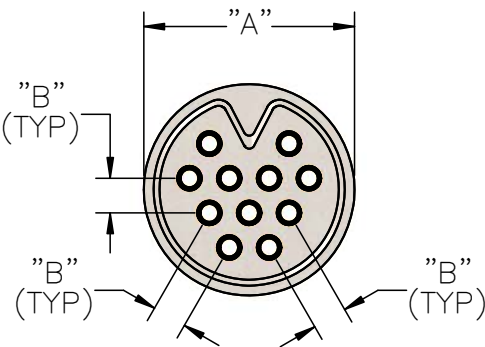
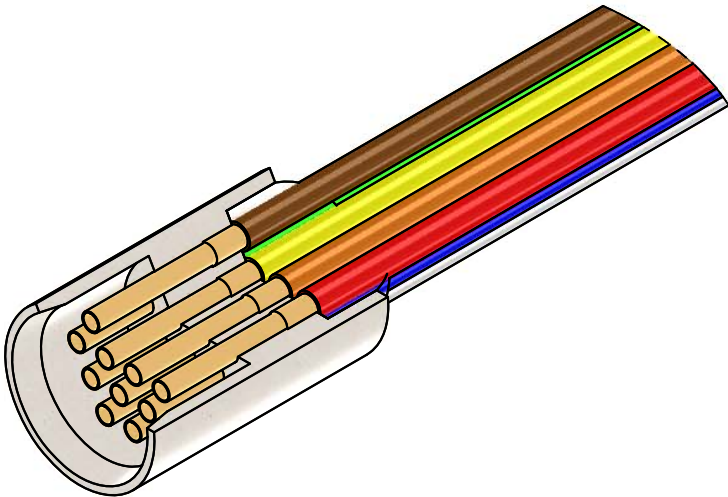
Plastic - Pin - Wired

NCP-WD



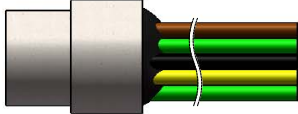
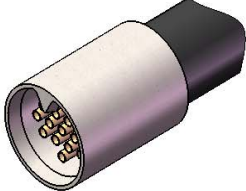
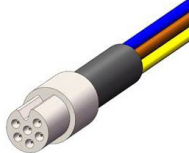
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79100-001	6	0.122	0.025	3.10	0.64
A79102-001	11	0.153		3.89	
A79104-001	16	0.181		4.60	
A79106-001	25	0.217		5.51	
A79120-001	39	0.305	0.035	7.75	0.89

Plastic - Socket - Wired
NCS-WD



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79101-001	6	0.122	0.025	3.10	0.64
A79103-001	11	0.153		3.89	
A79105-001	16	0.181		4.60	
A79107-001	25	0.217		5.51	
A79121-001	39	0.305	0.035	7.75	0.89

NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

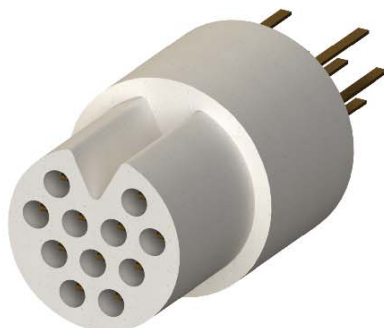
Series	# of Contacts	Termination Type	Options	
NC	6	WD: Discrete Lead Wire	C Color Coded	<i>Non-Standard Option</i>
	11			
	16			
Male (P - Pin)	28			OM Overmold (Contact Omnetics for Overmold Information & Availability)
	39			
		WC: Cable	CLIP Locking Clip	
Female (S - Socket)			RH RoHS COMPLIANT	
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 26 AWG Max	ST: Inline Shell w/ Shrink Tube	

EXAMPLE:
NCP-16-WD-12.0-C



NANO 360® Plastic

Nano Circular Straight Thru-Hole Tail



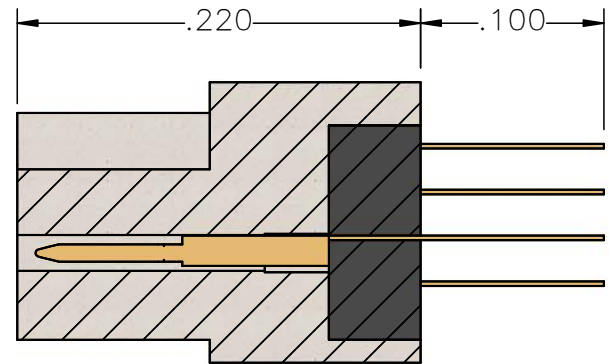
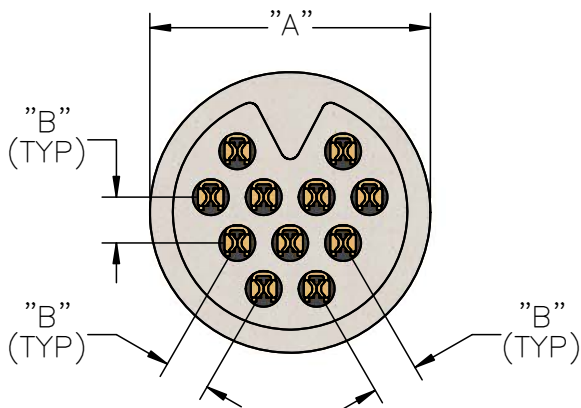
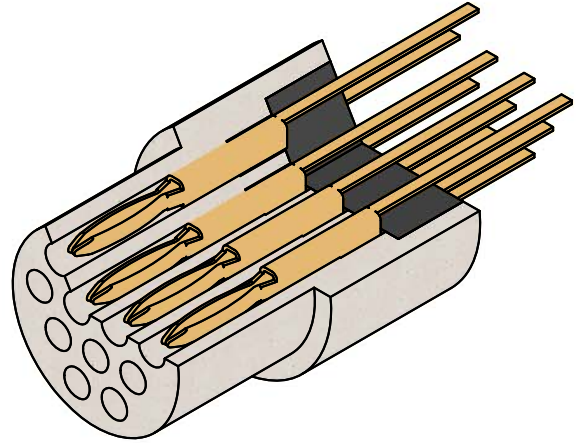
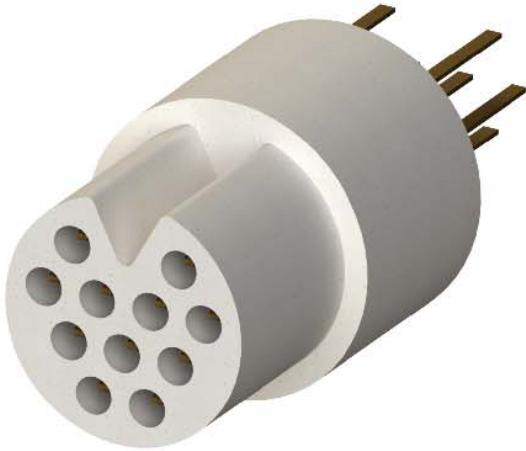
Electrical-Mechanical Specifications

■ Operating Temperature:	-55°C to 125°C
■ Dielectric Withstand Voltage:	250 VAC RMS @sea level
■ Contact Resistance:	71 milliohms(71 mV) Max @1 Amps
■ Current Rating:	1 Amps per contact
■ Durability:	>2000 Mating Cycles min
■ Insulation Resistance:	5000 megohms @ 100 VDC
■ Shock:	100 g's with no discontinuities > 10 nanosecond
■ Vibration:	20 g's with no discontinuities > 10 nanosecond
■ Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% max CVCM
■ Mating/Unmating Force:	2.5 oz (71 g) typical per contact

Material Specifications

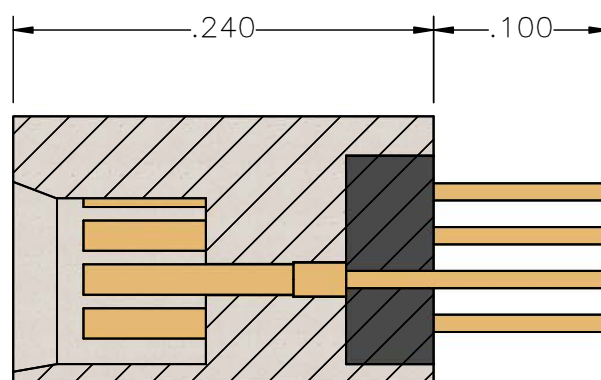
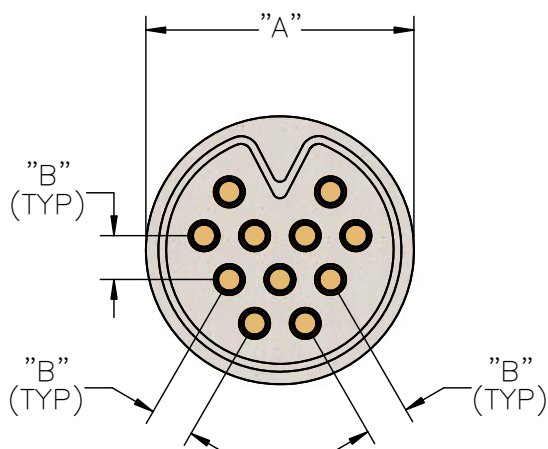
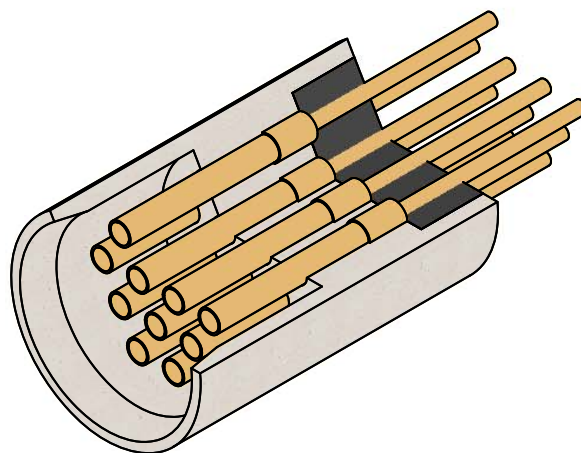
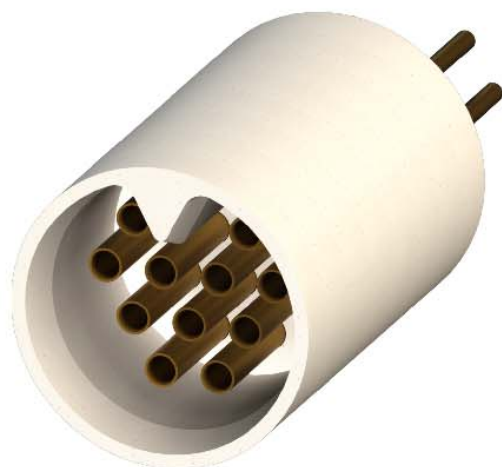
■ Contact:	Copper Alloy per MIL-DTL-32139
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519

Plastic - Pin - Straight Tail NCP-DD



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79108-001	6	0.122	0.025	3.10	0.64
A79110-001	11	0.153		3.89	
A79112-001	16	0.181		4.60	
A79114-001	28	0.217		5.51	
A79122-001	39	0.305	0.035	7.75	0.89

Plastic - Socket - Straight Tail NCS-DD



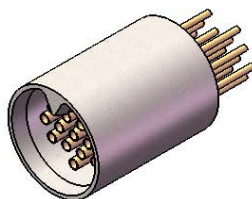
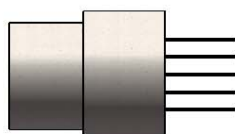
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79109-001	6	0.122	0.025	3.10	0.64
A79111-001	11	0.153		3.89	
A79113-001	16	0.181		4.60	
A79115-001	28	0.217		5.51	
A79123-001	39	0.305	0.035	7.75	0.89

NANO CIRCULAR STRAIGHT THRU-HOLE TAIL (TYPE DD)

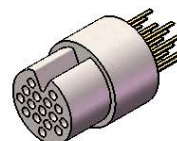
Series	# of Contacts	Termination Type	Options
NC	6 11 16 28 39	DD: Straight Thru-Hole	RH RoHS COMPLIANT



Female
(S - Socket)



EXAMPLE:
NCP-16-DD-RoHS



NANO 360® Metal

Nano Circular Threaded

Optional IP68 rating



Electrical-Mechanical Specifications

- | | |
|--|---|
| ■ Performance: | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139 |
| ■ Contact Resistance: | 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139 |
| ■ Current Rating: | 1 Amp per MIL-DTL-32139 |
| ■ Operating Temperature: | -55°C to 125°C (200°C with High Temp Epoxy) |
| ■ Durability: | IP68 overmold -55°C to 85°C |
| ■ Insulation Resistance: | >2000 mating cycles min |
| ■ Shock: | 5000 megohms @ 500 VDC |
| ■ Vibration: | 100 g's with no discontinuities > 10 nanosecond |
| ■ Thermal Vacuum Outgassing (Space Class): | 20 g's with no discontinuities > 10 nanosecond |
| ■ Mating/Unmating Force: | 1.0% max TML, 0.03% max CVCM |
| | 2.5 oz (71 g) typical per contact |

Material Specifications

- | | |
|---------------------|--|
| ■ Contact: | Copper Alloy Per MIL-DTL-32139 |
| ■ Contact Finish: | Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate |
| ■ Insulator: | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | Black Thermoplastic Polyurethane |
| ■ O-Ring: | BUNA-N |
| ■ Cable (Shielded): | 32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket |
| ■ Wire: | 32 AWG (7-40) PTFE, color coded |

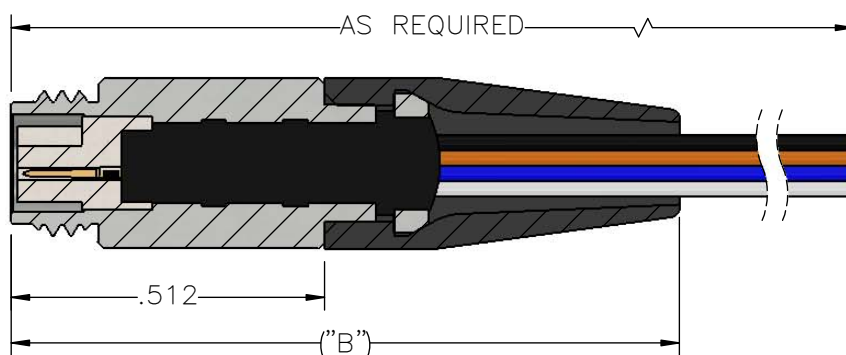
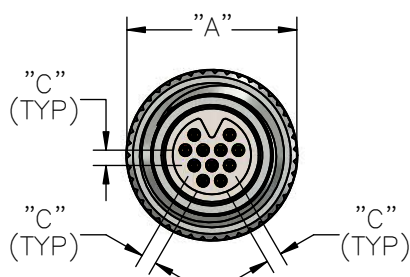
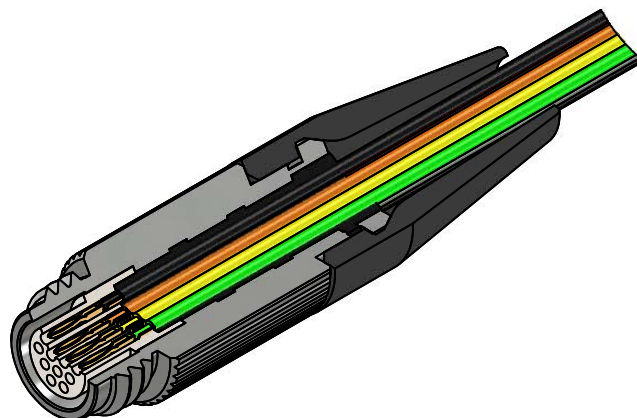
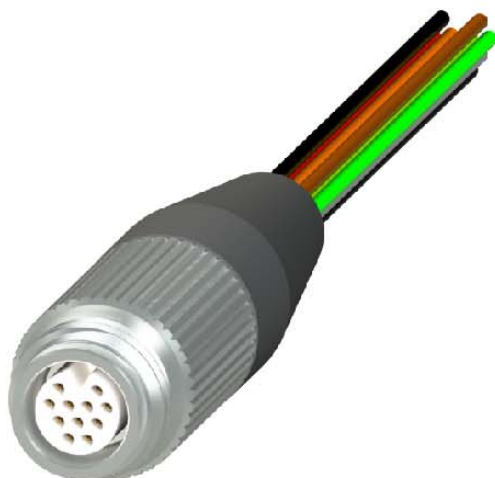
Shell Options

- | | |
|--------------------------------|---|
| ■ Brass Alloy 360 1/2 Hard: | Electroless Nickel per SAE-AMS-2404 |
| | Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | Passivated per SAE-AMS-2700 |
| | Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

* less resistance to salt spray test.

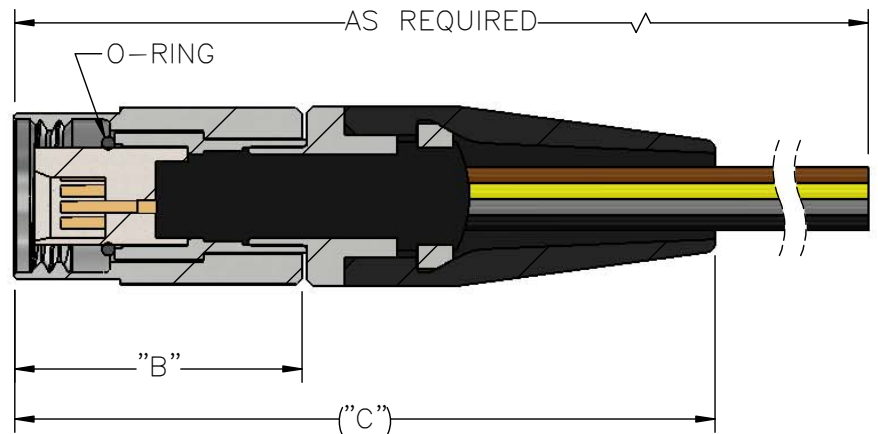
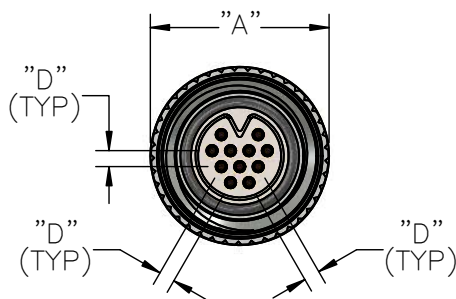
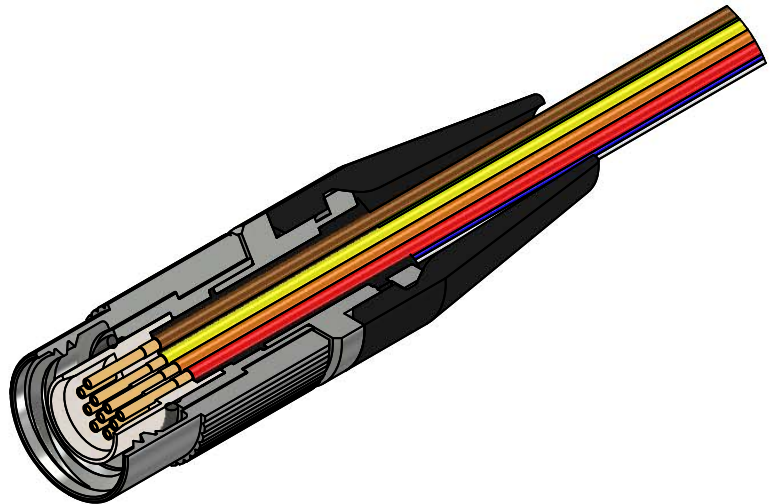
Metal - Pin - Threaded - Wired - Inline - Strain Relief

MNCP-WD-IS-SR



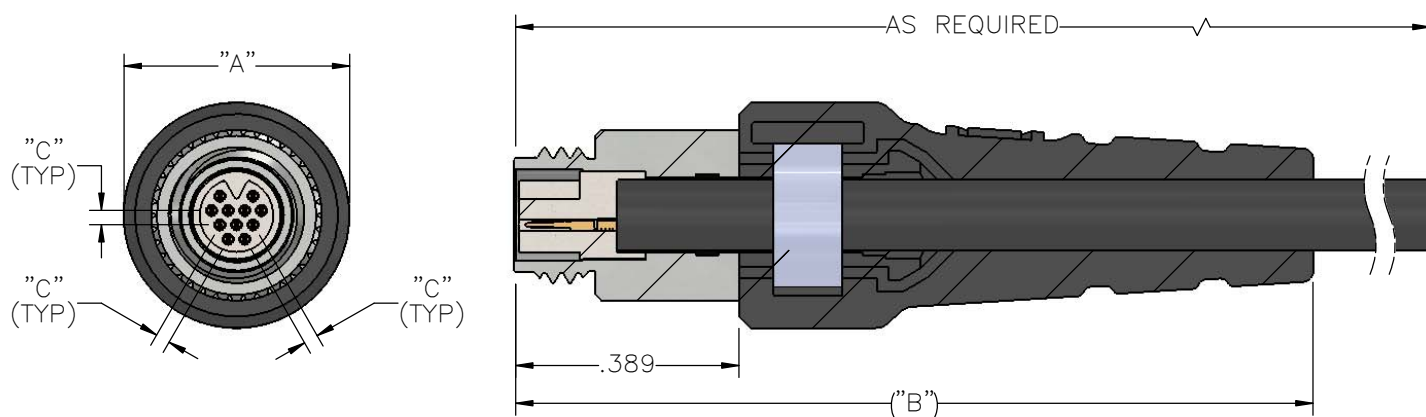
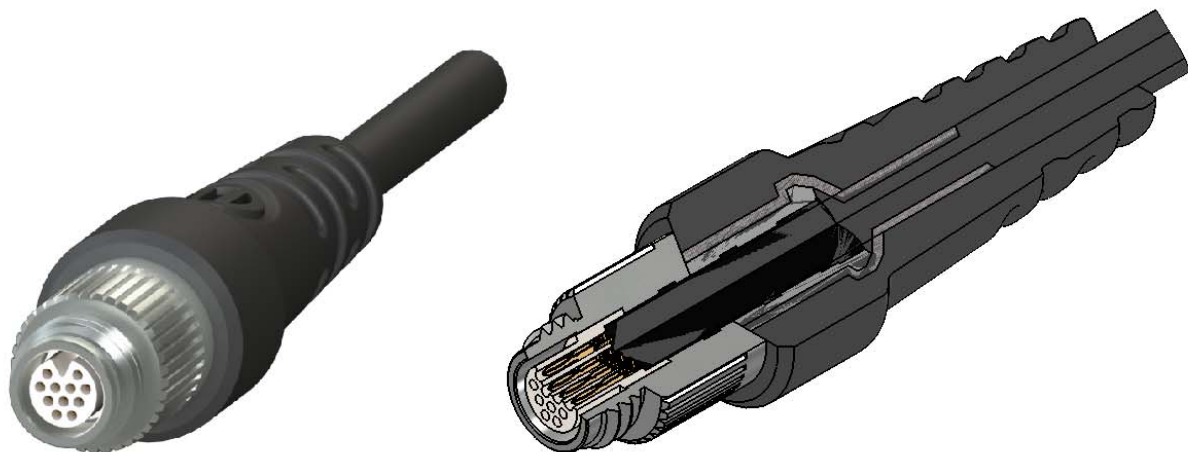
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		A	B	C	A	B	C
A79150-001	6	0.25	1.1	0.025	6.35	27.94	0.64
A79152-001	11	0.28			7.11		
A779154-001	16	0.32	1.3		8.13	33.02	
A79156-001	28	0.37	1.6	0.030	9.40	40.64	0.76
A79465-001	39	0.47	1.7		11.81	43.18	

Metal - Socket - Threaded - Wired - Inline - Strain Relief MNCS-WD-IS-SR



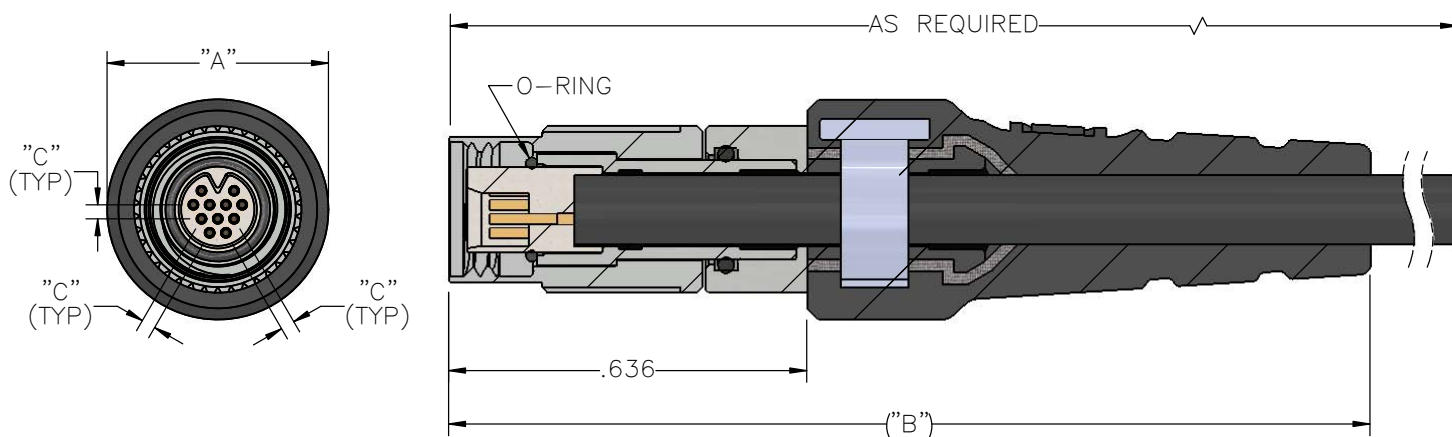
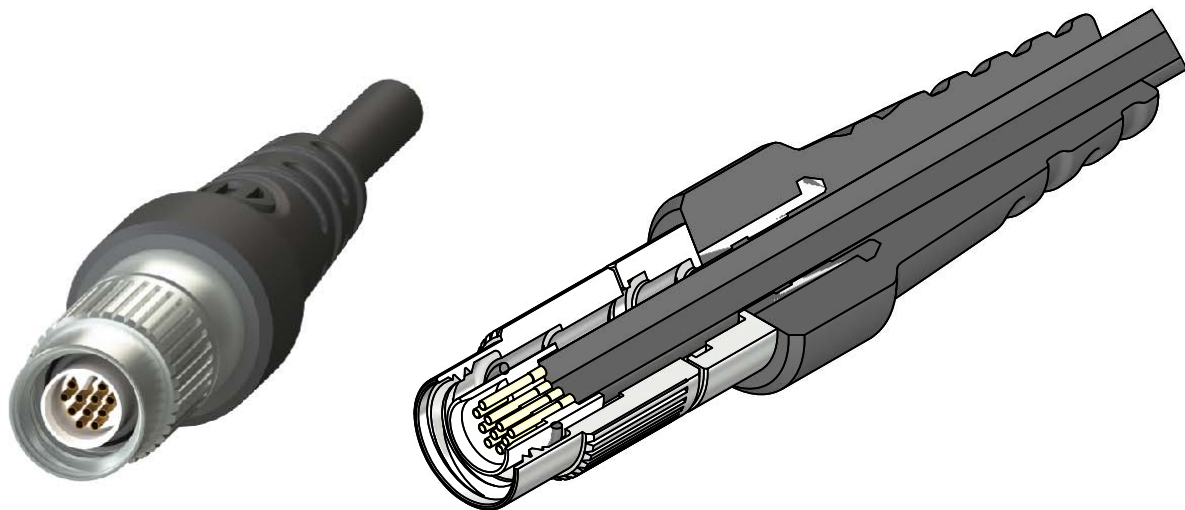
English (IN)						Metric (MM)			
Part #	Contacts	A	B	C	D	A	B	C	D
A79151-001	6	0.25	0.45	1.1	0.025	6.35	7.11	27.94	0.64
A79153-001	11	0.28				7.11	7.11		
A79155-001	16	0.33				8.38	7.11		
A79157-001	28	0.37		9.40		9.45	40.64		
A79156-001	39	0.37	0.51	1.6	0.030	9.40		11.4	

Metal - Pin - Threaded - Cabled - Overmold - Inline - IP68 MNCP-WC-OM-IS-IP68



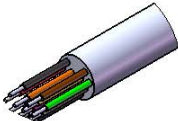
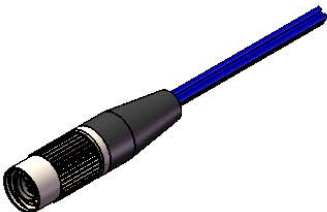
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		A	B	C	A	B	C
A79333-001	6	0.36	1.39	0.025	9.14	35.31	0.64
A79329-001	11	0.39			9.91		
A79325-001	16	0.42	1.47		10.67	37.34	
A79321-001	28	0.46	1.57	0.030	11.68	39.88	0.76
A79482-001	39	0.55			13.97		

**Metal - Socket - Threaded -
Cabled - Overmold - Inline - IP68**
MNCS-WC-OM-IS-IP68



		English (IN)			Metric (MM)		
Part #	Contacts	A	B	C	A	B	C
A79332-001	6	0.36	1.640	0.025	9.14	41.66	0.64
A79328-001	11	0.39			9.91		
A79324-001	16	0.42	1.710		10.67	43.43	
A79320-001	28	0.46	1.820	0.030	11.68	46.23	0.76
A79483-001	39	0.55			13.97		

METAL NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
TNC	6	WD: Discrete Lead Wire	Standard	IS: Inline Shell	C
	11		N: Nickel Plated Brass		Color Coded
Male (P - Pin)	16				
	28		Non-Standard Options	SR: Inline Shell w/ Strain Relief	OR
Female (S - Socket)	39	WC: Cable	BN: Black Nickel Plated Brass		O-Ring
					
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 32 AWG Max	P: Passivated Stainless Steel	ST: Inline Shell w/ Shrink Tube	IP68
					IP68
			OX: Black Oxide Finished Steel		RH
					RoHS COMPLIANT
					
					OM
					Overmold (Contact Omnetics for Overmold Information & Availability)
					

EXAMPLE:
MNCS-11-WD-10.0-C-IS-N-SR-OR

NANO 360® Metal

Nano Threaded Panel Mount

Optional IP68 Rating



Electrical-Mechanical Specifications

- | | |
|--|---|
| ■ Performance: | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139 |
| ■ Contact Resistance: | 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139 |
| ■ Current Rating: | 1 Amp per MIL-DTL-32139 |
| ■ Operating Temperature: | -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C |
| ■ Durability: | >2000 mating cycles min |
| ■ Insulation Resistance: | 5000 megohms @ 500 VDC |
| ■ Shock: | 100 g's with no discontinuities > 10 nanosecond |
| ■ Vibration: | 20 g's with no discontinuities > 10 nanosecond |
| ■ Thermal Vacuum Outgassing (Space Class): | 1.0% max TML, 0.03% max CVCM |
| ■ Mating/Unmating Force: | 2.5 oz (71 g) typical per contact |

Material Specifications

- | | |
|---------------------|--|
| ■ Contact: | Copper Alloy Per MIL-DTL-32139 |
| ■ Contact Finish: | Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate |
| ■ Insulator: | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | Black Thermoplastic Polyurethane |
| ■ O-Ring: | BUNA-N |
| ■ Cable (Shielded): | 32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket |
| ■ Wire: | 32 AWG (7-40) PTFE, color coded |

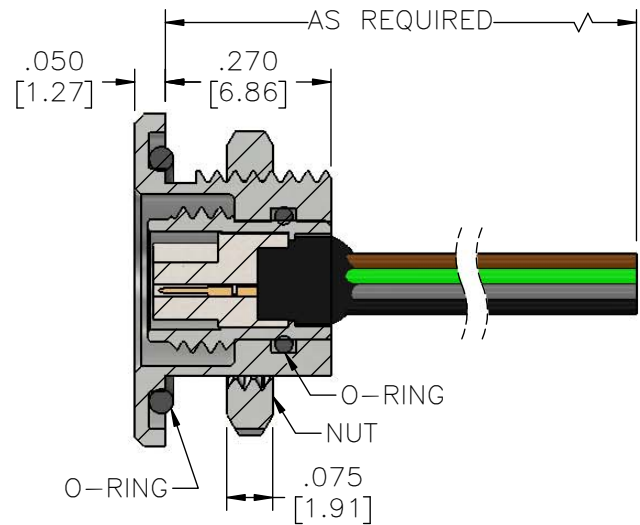
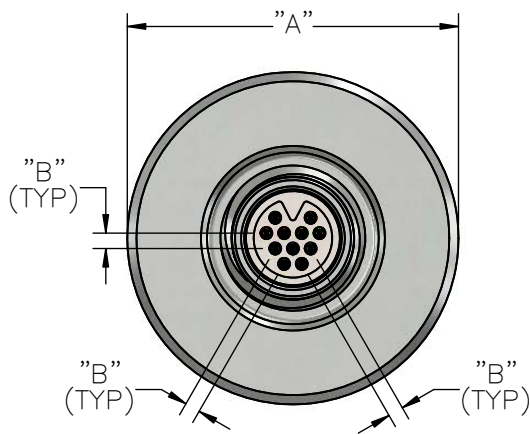
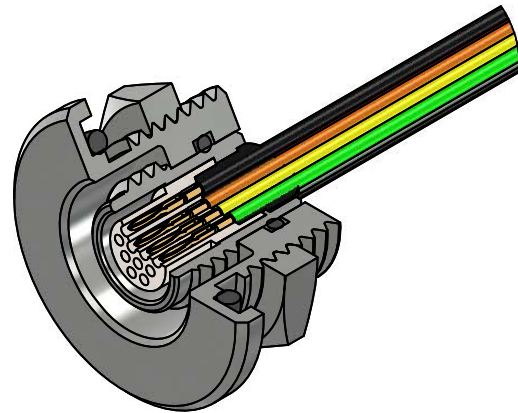
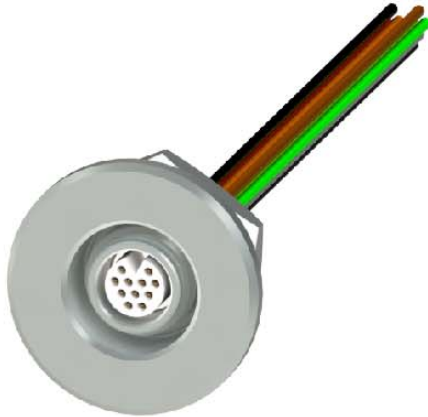
Shell Options

- | | |
|--------------------------------|--|
| ■ Brass Alloy 360 1/2 Hard: | Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

* less resistance to salt spray test.

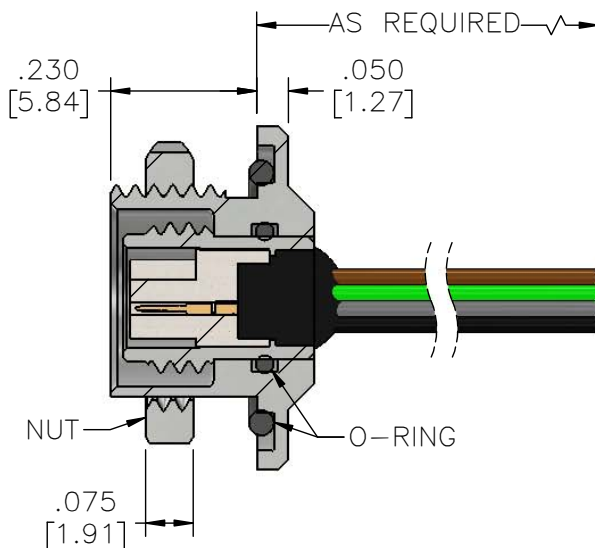
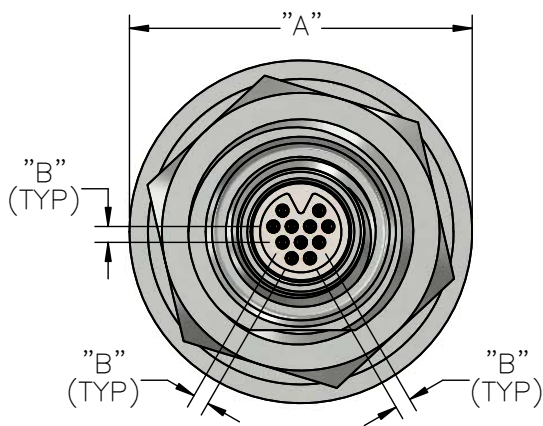
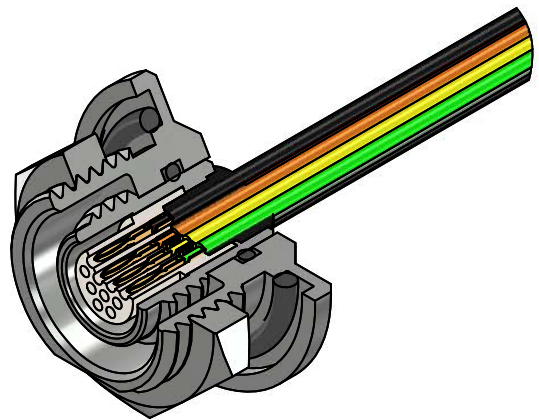
Metal - Pin - Threaded - Wired - Front Panel - IP68

MNCP-WD-FP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79280-001	6	0.495	0.025	12.57	0.64
A79281-001	11	0.540		13.72	
A79282-001	16	0.580		14.73	
A79283-001	28	0.615		15.62	
A79484-001	39	0.735	0.030	18.67	0.76

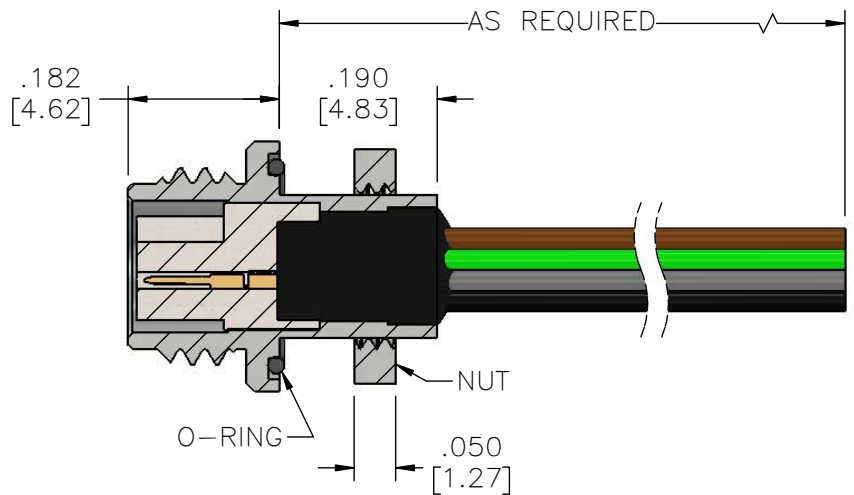
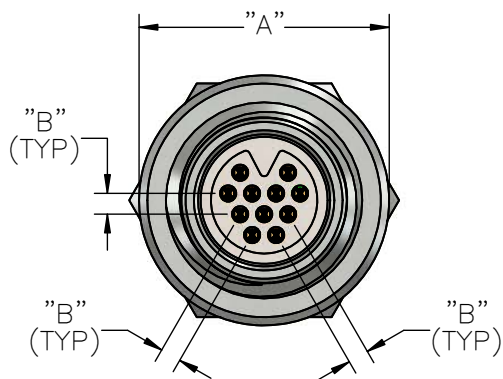
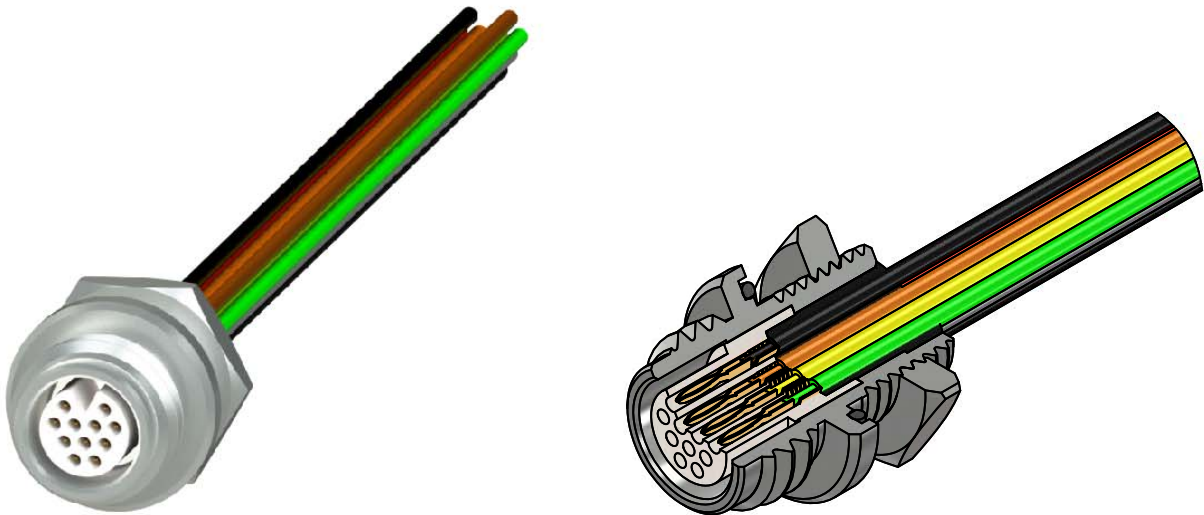
Metal - Pin - Threaded - Wired - Rear Panel - IP68 MNCP-WD-RP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79284-001	6	0.495	0.025	12.57	0.64
A79285-001	11	0.540		13.72	
A79286-001	16	0.580		14.73	
A79287-001	28	0.615		15.62	
A79485-001	39	0.735	0.030	18.67	0.76

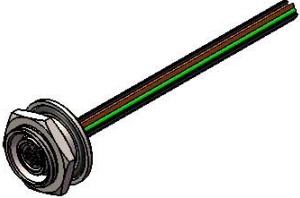
Metal - Pin - Threaded - Wired - Protruding Panel - IP68

MNCP-WD-PP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79288-001	6	0.330	0.025	8.38	0.64
A79289-001	11	0.400		10.16	
A79290-001	16	0.415		10.54	
A79291-001	28	0.460		11.68	
A79486-001	39	0.575	0.30	14.61	0.76

METAL NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
MNC Male (P - Pin) 	6	WD: Discrete Lead Wire 	Standard N: Nickel Plated Brass 	FP: Front Panel Mount (male only) 	C Color Coded 
	11 16 28 39	WC: Cable  Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 32 AWG Max	Non-Standard Options BN: Black Nickel Plated Brass  P: Passivated Stainless Steel  OX: Black Oxide Finished Steel 	RP: Rear Panel Mount (male only)  PP: Protruding Panel Mount (male only) 	OR O-Ring  IP68  RH RoHS COMPLIANT 
		EXAMPLE: MNCP-16-WD-10.0-N-RP-C-OR			
					

NANO 360® Metal

Nano Circular Twist-Lock

Optional IP68 Rating



Electrical-Mechanical Specifications

■ Performance:	Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139
■ Contact Resistance:	71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139
■ Current Rating:	1 Amp per MIL-DTL-32139
■ Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy)
■ Durability:	IP68 overmold -55°C to 85°C
■ Insulation Resistance:	>2000 mating cycles min
■ Shock:	5000 megohms @ 500 VDC
■ Vibration:	100 g's with no discontinuities > 10 nanosecond
■ Thermal Vacuum Outgassing (Space Class):	20 g's with no discontinuities > 10 nanosecond
■ Mating/Unmating Force:	1.0% max TML, 0.03% max CVCM
	2.5 oz (71 g) typical per contact

Material Specifications

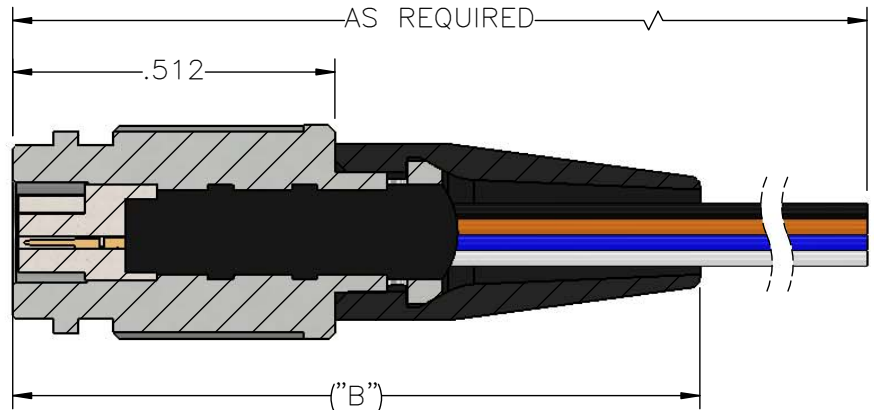
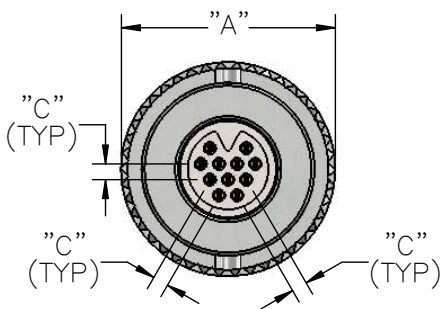
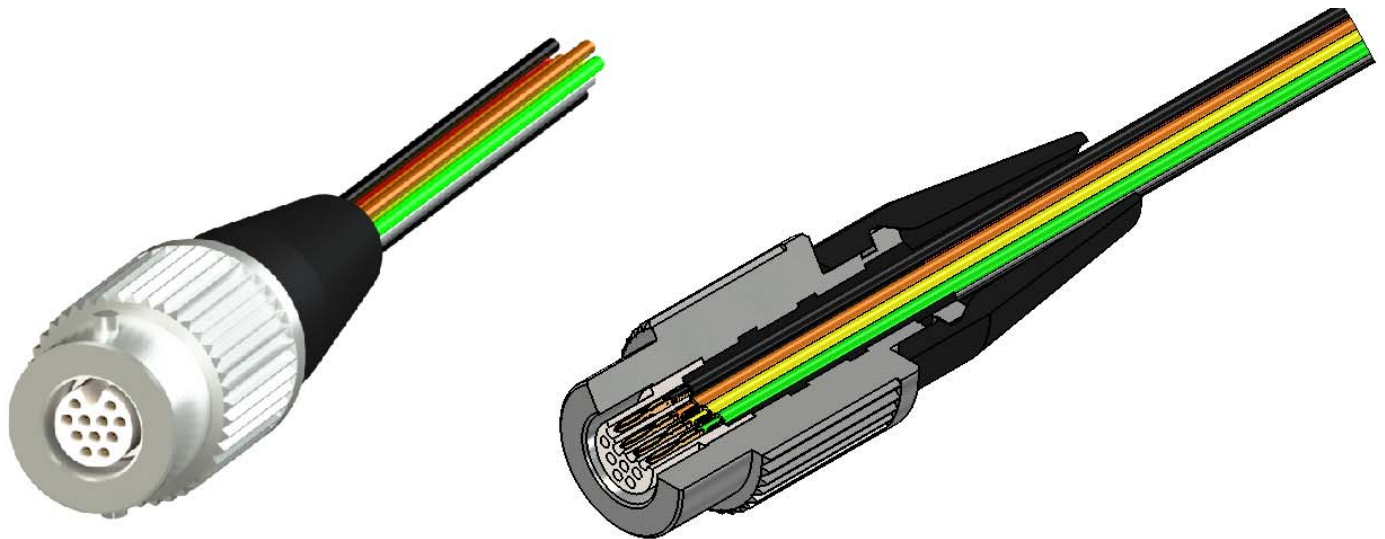
■ Contact:	Copper Alloy Per MIL-DTL-32139
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Overmold:	Black Thermoplastic Polyurethane
■ O-Ring:	BUNA-N
■ Cable (Shielded):	32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket
■ Wire:	32 AWG (7-40) PTFE, color coded

Shell Options

■ Brass Alloy 360 1/2 Hard:	Electroless Nickel per SAE-AMS-2404
	Black Nickel per MIL-P-18317
■ Stainless Steel, 300 Series:	Passivated per SAE-AMS-2700
	Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

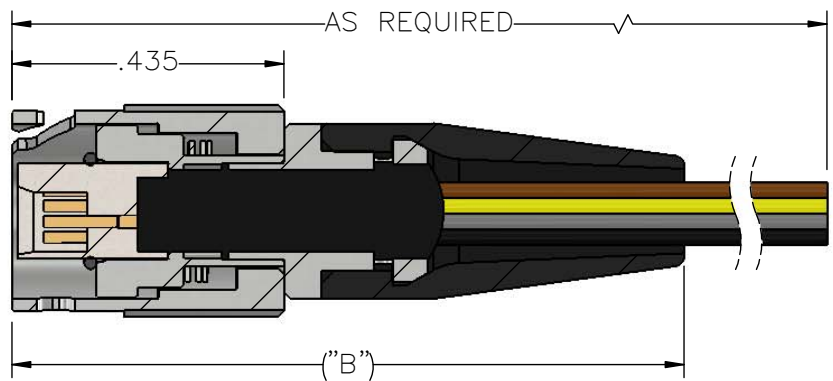
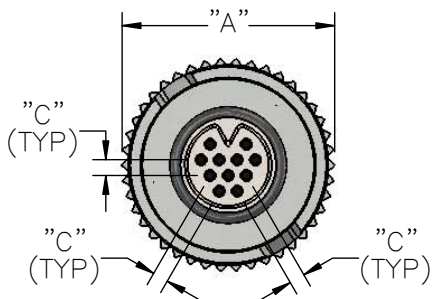
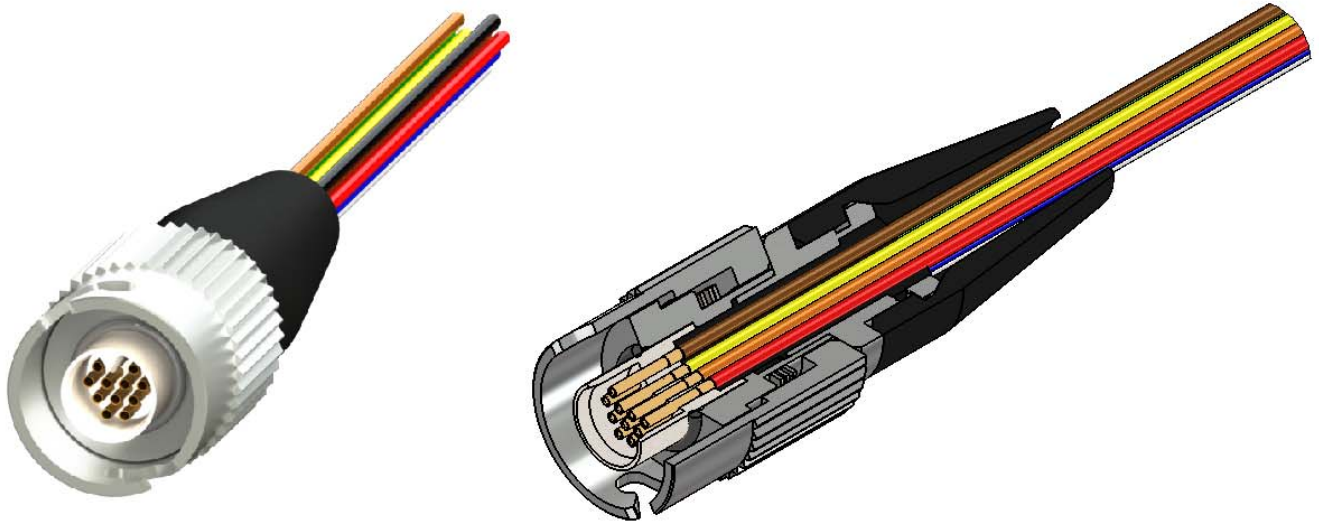
* less resistance to salt spray test.

Metal - Pin - Twist-Lock - Wired - Inline - Strain Relief TNCP-WD-IS-SR



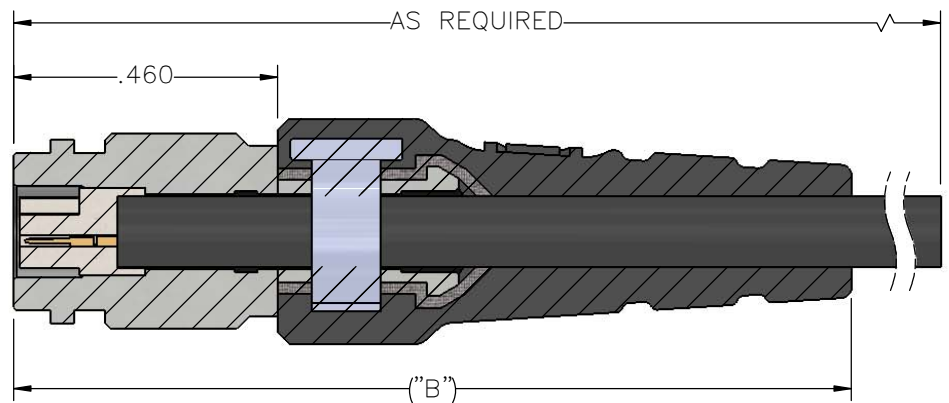
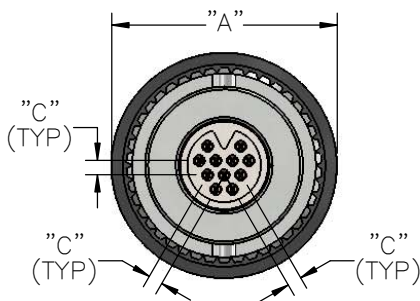
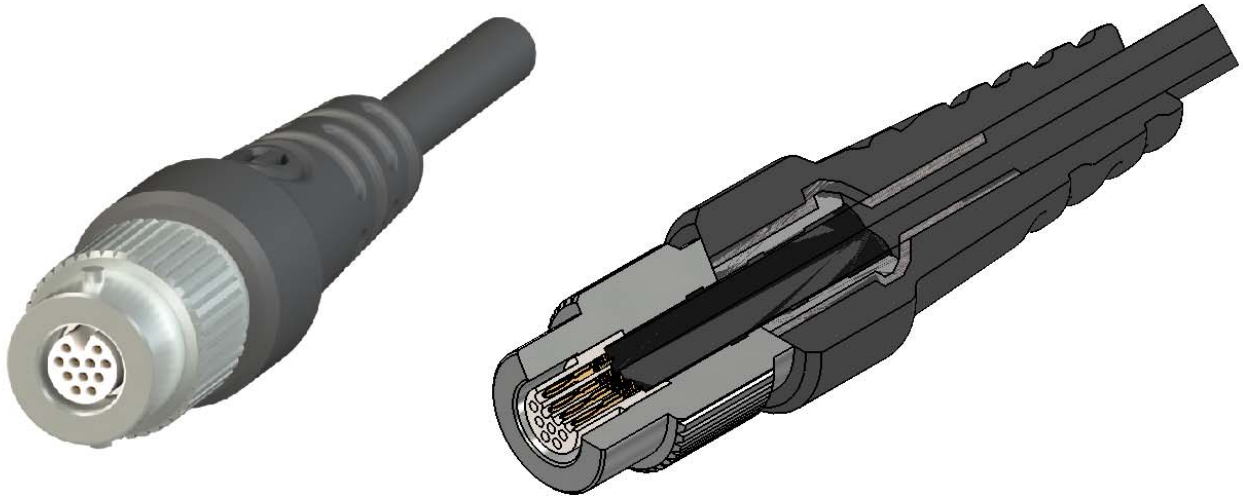
Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A79237-001	6	0.320	1.100	0.025	8.13	27.94	0.64
A79242-001	11	0.340			8.64		
A79247-001	16	0.370	1.300		9.40	33.02	
A79252-001	28	0.400	1.600	0.030	10.16	40.64	0.76
A79477-001	39	0.496	1.700		12.60	43.18	

Metal - Socket - Twist-Lock - Wired - Inline - Strain Relief TNCS-WD-IS-SR



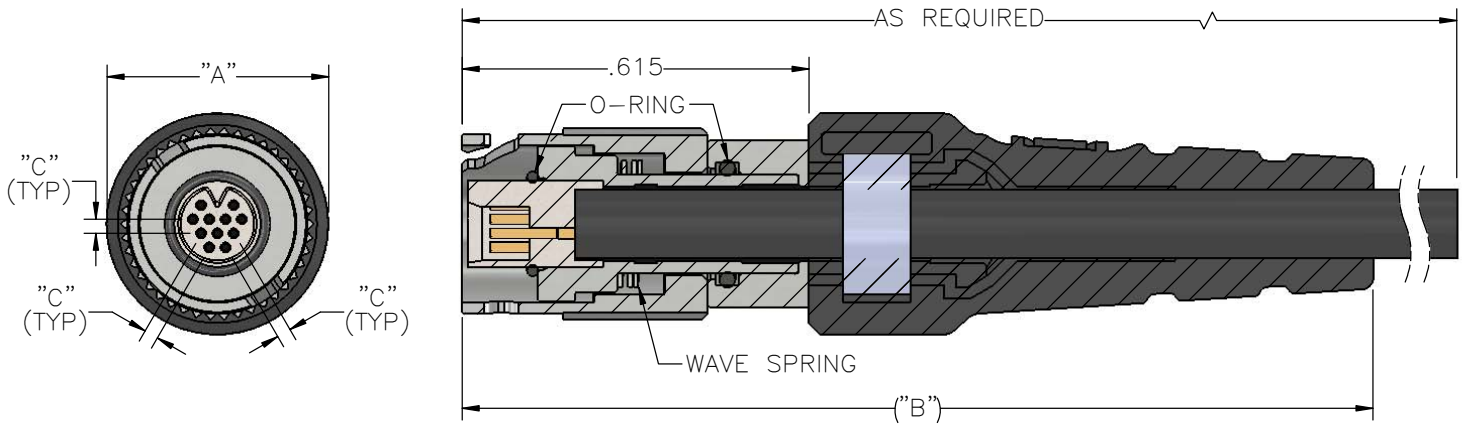
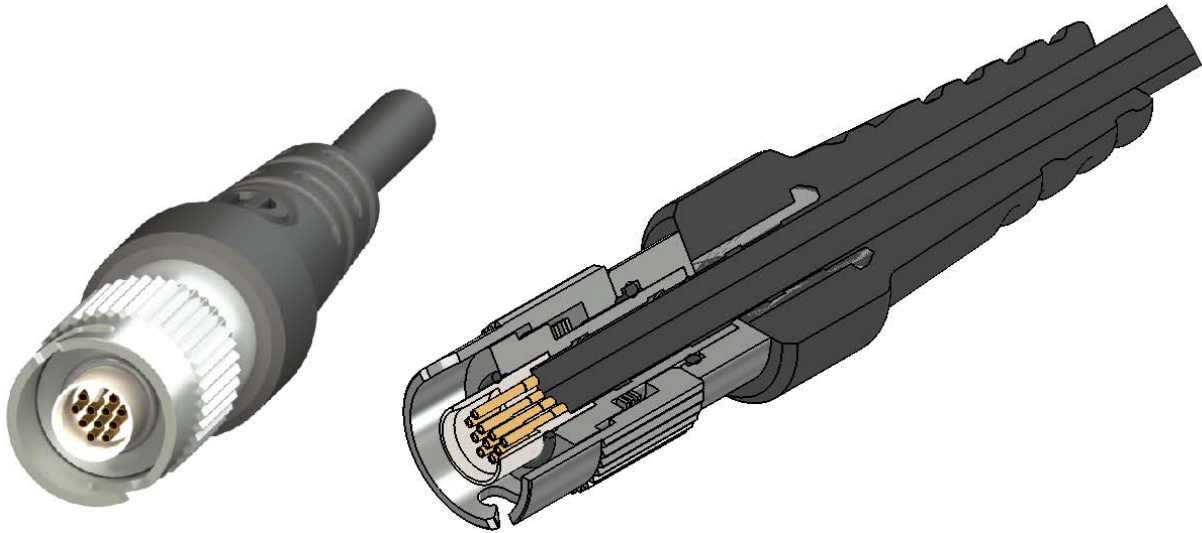
Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A79236-001	6	0.320	1.100	0.025	8.13	27.94	0.64
A79241-001	11	0.340			8.64		
A79246-001	16	0.370	1.300		9.40	33.02	
A79251-001	28	0.400	1.600		10.16	40.64	
A79478-001	39	0.500	1.700	0.030	12.70	43.18	0.76

Metal - Pin - Twist-Lock - Cabled - Overmold - Inline - IP68 TNCP-WC-OM-IS-IP68



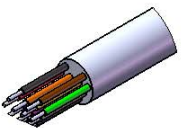
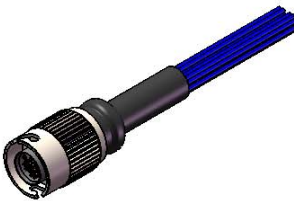
Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A79343-001	6	0.36	1.46	0.025	9.14	37.08	0.64
A79341-001	11	0.39			9.91		
A79339-001	16	0.42	1.54		10.67	39.12	
A79337-001	28	0.46	1.60		11.68	40.64	
A79494-001	39	0.55	1.64	0.030	13.97	41.66	0.76

Metal - Socket - Twist-Lock - Cabled - Overmold - Inline - IP68 TNCS-WC-OM-IS-IP68



English (IN)					Metric (MM)		
Part #	Contacts	A	B	C	A	B	C
A79342-001	6	0.36	1.600	0.025	9.14	40.64	0.64
A79340-001	11	0.39			9.91		
A79338-001	16	0.42	1.700		10.67	43.18	
A79336-001	28	0.46	1.800	0.030	11.68	45.72	0.76
A79495-001	39	0.55			13.97		

TWIST LOCK NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
TNC	6	WD: Discrete Lead Wire	Standard	IS: Inline Shell	C
Male (P - Pin)	11		N: Nickel Plated Brass		Color Coded
	16				
	28				
	39				
Female (S - Socket)		WC: Cable	Non-Standard Options	SR: Inline Shell w/ Strain Relief	OR
			BN: Black Nickel Plated Brass		O-Ring
					
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X"= Custom Length i.e. 23.4" 32 AWG Max	P: Passivated Stainless Steel	ST: Inline Shell w/ Shrink Tube	IP68
					IP68
			OX: Black Oxide Finished Steel		RH
					RoHS COMPLIANT
					
					OM
					Overmold (Contact Omnetics for Overmold Information & Availability)
					

EXAMPLE:
TNCS-28-WD-18.0-N-IS-ST-C-OR-ROHS

NANO 360® Metal

Nano Circular Twist-Lock Panel Mount

Optional IP68 Rating



Electrical-Mechanical Specifications

■ Performance:	Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139
■ Contact Resistance:	71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139
■ Current Rating:	1 Amp per MIL-DTL-32139
■ Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy)
■ Durability:	IP68 overmold -55°C to 85°C
■ Insulation Resistance:	>2000 mating cycles min
■ Shock:	5000 megohms @ 500 VDC
■ Vibration:	100 g's with no discontinuities > 10 nanosecond
■ Thermal Vacuum Outgassing (Space Class):	20 g's with no discontinuities > 10 nanosecond
■ Mating/Unmating Force:	1.0% max TML, 0.03% max CVCM
	2.5 oz (71 g) typical per contact

Material Specifications

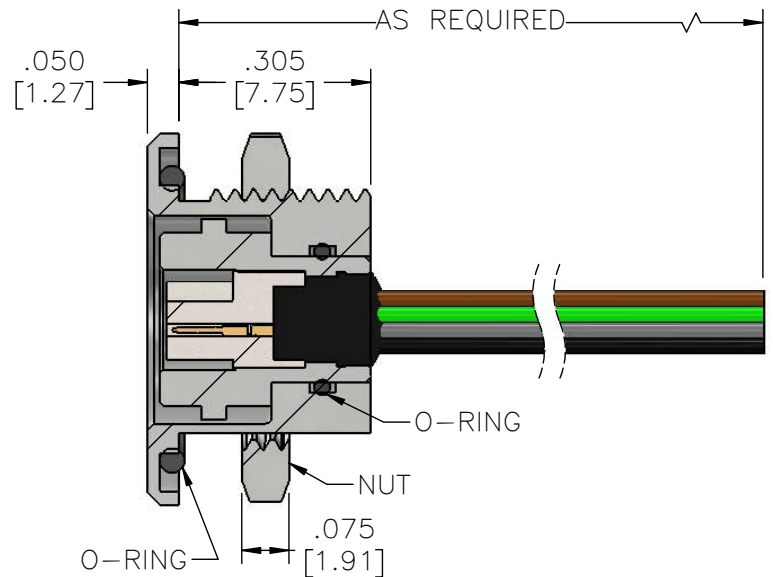
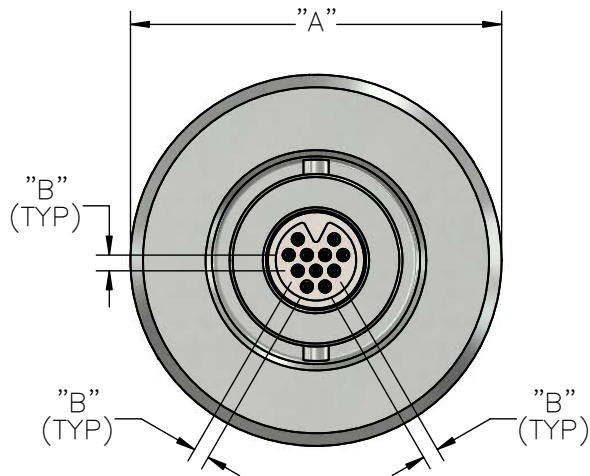
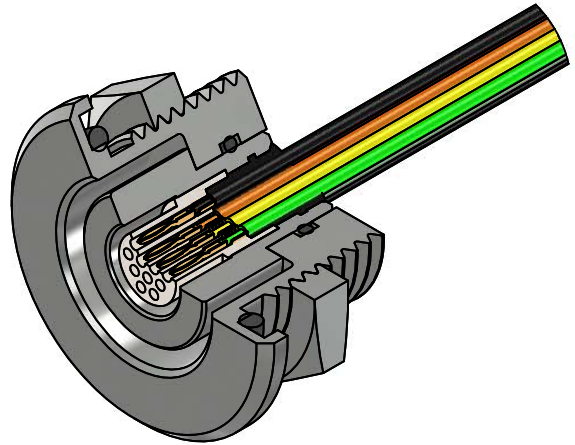
■ Contact:	Copper Alloy Per MIL-DTL-32139
■ Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
■ Insulator:	Thermoplastic per MIL-M-24519
■ Overmold:	Black Thermoplastic Polyurethane
■ O-Ring:	BUNA-N
■ Cable (Shielded):	32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket
■ Wire:	32 AWG (7-40) PTFE, color coded

Shell Options

■ Brass Alloy 360 1/2 Hard:	Electroless Nickel per SAE-AMS-2404
	Black Nickel per MIL-P-18317
■ Stainless Steel, 300 Series:	Passivated per SAE-AMS-2700
	Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

* less resistance to salt spray test.

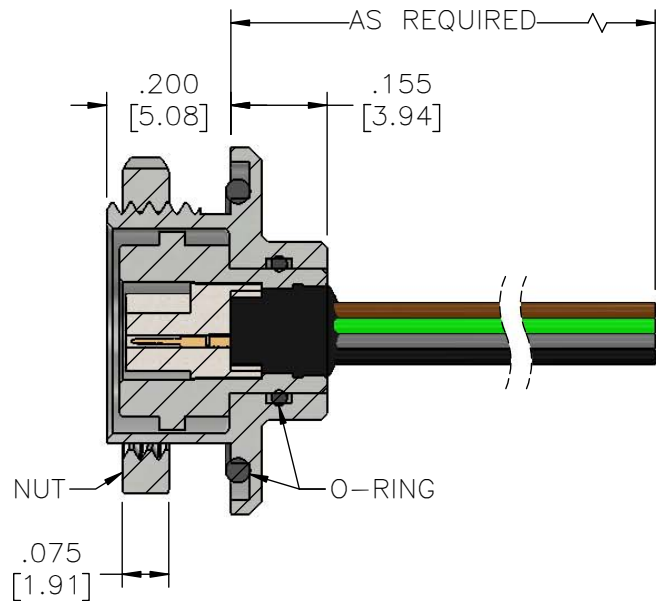
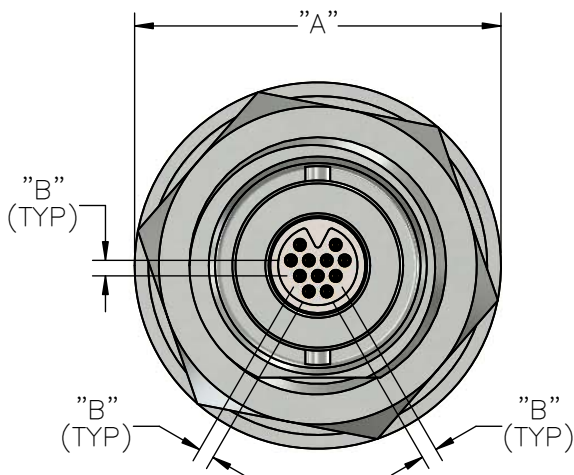
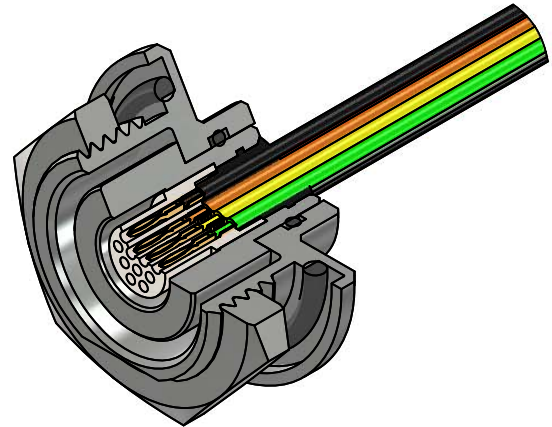
Metal - Pin - Twist-Lock - Wired - Front Panel - IP68 TNCP-WD-FP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79408-001	6	0.580	0.025	14.73	0.64
A79409-001	11	0.590		14.99	
A79410-001	16	0.625		15.88	
A79411-001	28	0.650		16.51	
A79496-001	39	0.775	0.030	19.69	0.76

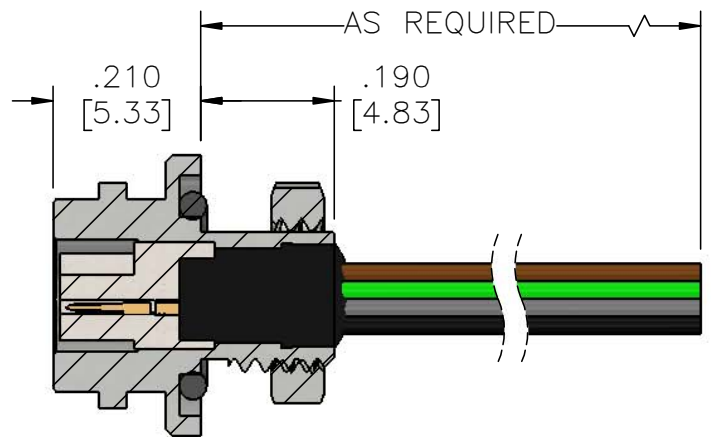
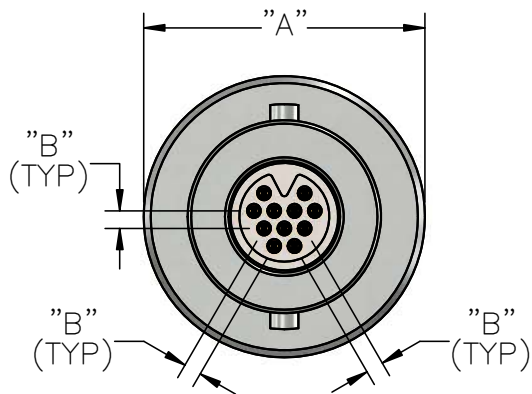
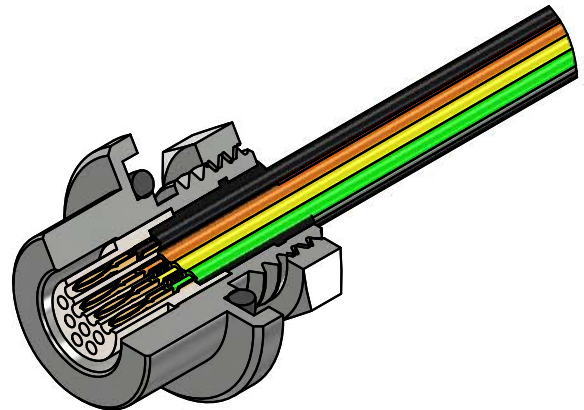
Metal - Pin - Twist-Lock - Wired - Rear Panel - IP68

TNCP-WD-RP-IP68



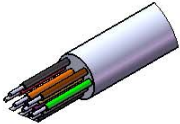
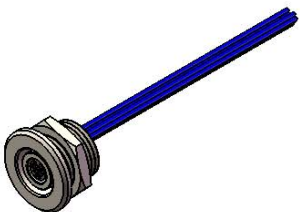
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79412-001	6	0.590	0.025	14.99	0.64
A79413-001	11			15.88	
A79414-001	16			16.51	
A79415-001	28	0.650	0.030	19.69	0.76
A79497-001	39	0.775			

Metal - Pin - Twist-Lock - Wired - Protruding Panel - IP68 TNCP-WD-PP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79240-001	6	0.330	0.025	8.38	0.64
A79245-001	11	0.400		10.16	
A79250-001	16	0.415		10.54	
A79255-001	28	0.460		11.68	
A79481-001	39	0.575	0.030	14.61	0.76

TWIST LOCK NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
TNC Male (P - Pin) 	6	WD: Discrete Lead Wire  WC: Cable  Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 32 AWG Max	<u>Standard</u> N: Nickel Plated Brass 	FP: Front Panel Mount (Male Only) 	C Color Coded 
	11		<u>Non-Standard Options</u> BN: Black Nickel Plated Brass 	RP: Rear Panel Mount (Male Only) 	OR O-Ring 
	16		P: Passivated Stainless Steel 	PP: Protruding Panel Mount (Male Only) 	IP68 IP68
	28		OX: Black Oxide Finished Steel 		RH RoHS COMPLIANT 
	39				
EXAMPLE: TNCP-11-WD-18.0-N-FP-C-OR-IP68					

NANO 360® Metal

Nano Circular Break Away

Optional IP68 rating



Electrical-Mechanical Specifications

- Performance: _____ Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139
- Contact Resistance: _____ 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139
- Current Rating: _____ 1 Amp per MIL-DTL-32139
- Operating Temperature: _____ -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C
- Durability: _____ 500 mating cycles min
- Insulation Resistance: _____ 5000 megohms @ 500 VDC
- Shock: _____ 100 g's with no discontinuities > 10 nanosecond
- Vibration: _____ 20 g's with no discontinuities > 10 nanosecond
- Thermal Vacuum Outgassing (Space Class): _____ 1.0% max TML, 0.03% max CVCM
- Mating/Unmating Force: _____ 2.5 oz (71g) typical per contact

Material Specifications

- Contact: _____ Copper Alloy Per MIL-DTL-32139
- Contact Finish: _____ Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
- Insulator: _____ Thermoplastic per MIL-M-24519
- Overmold: _____ Black Thermoplastic Polyurethane
- O-Ring: _____ BUNA-N
- Cable (Shielded): _____ 32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket
- Wire: _____ 32 AWG (7-40) PTFE, color coded

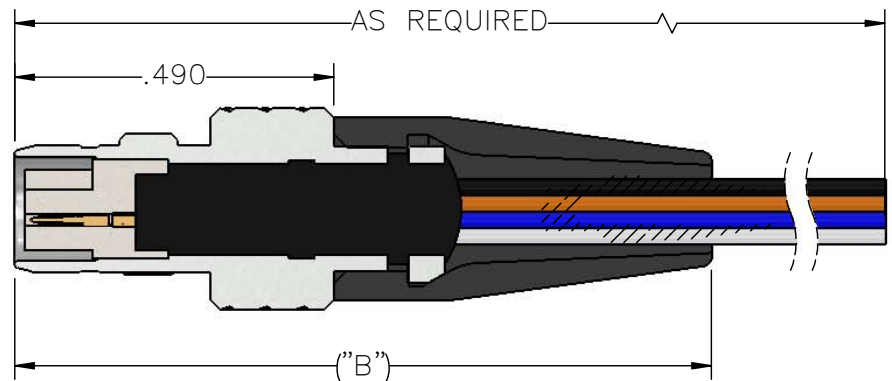
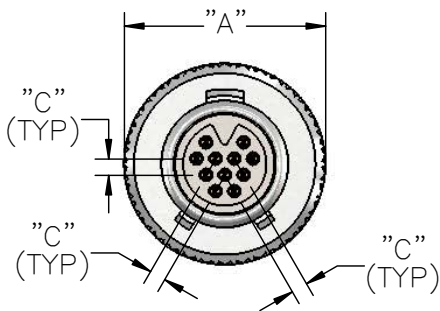
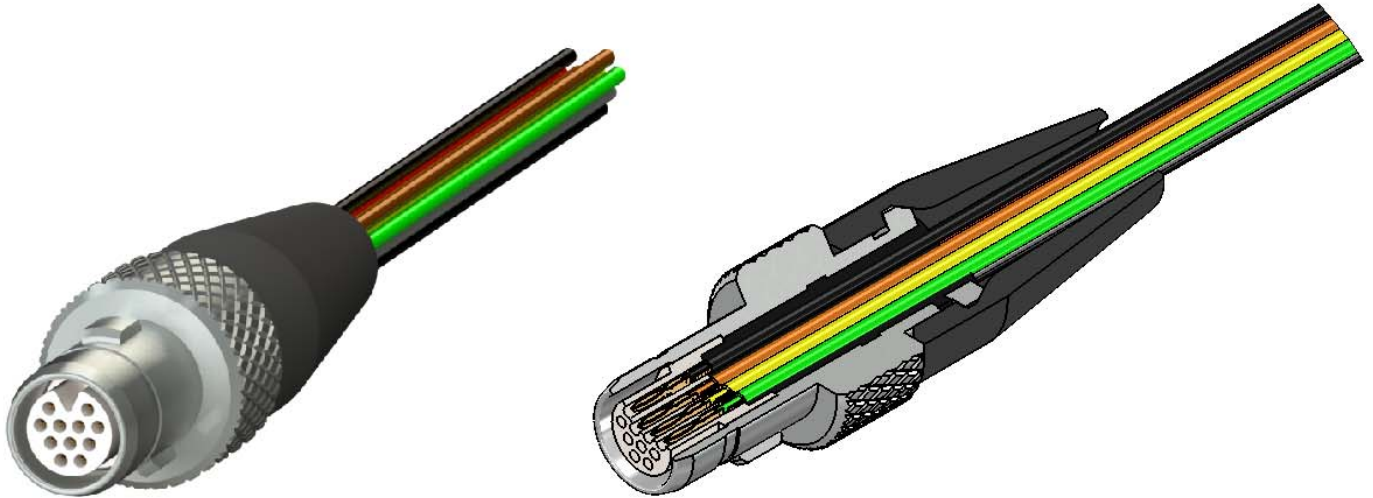
Shell Options

- Brass Alloy 360 1/2 Hard: _____ Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317
- Stainless Steel, 300 Series: _____ Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700

* less resistance to salt spray test.

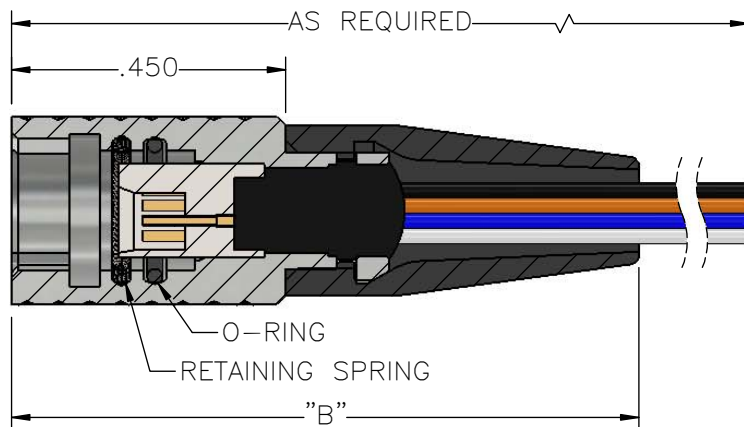
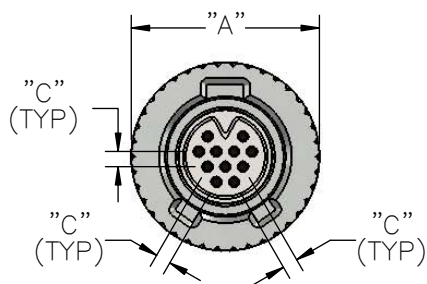
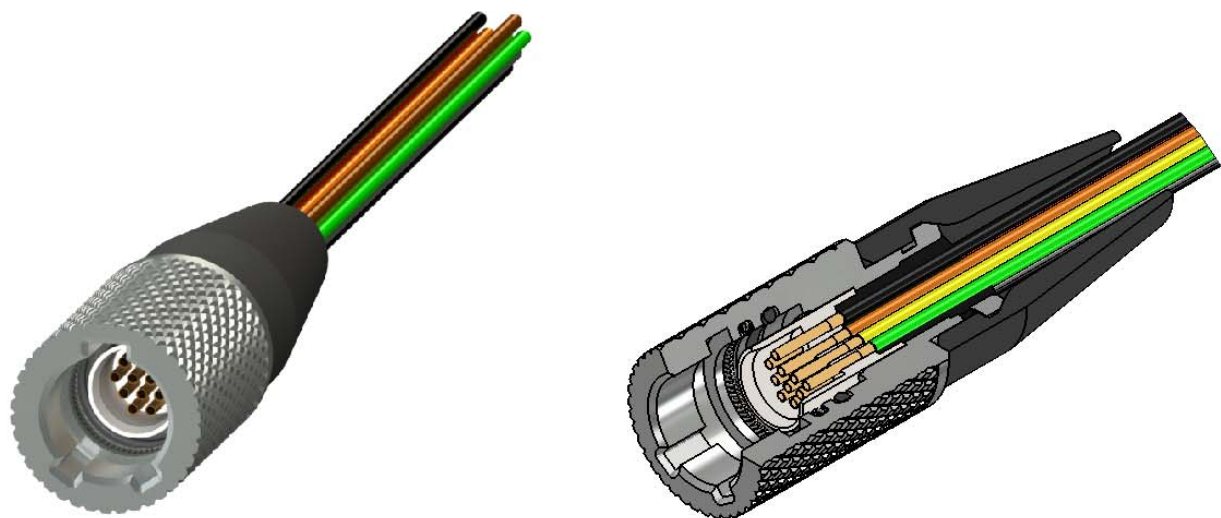
Metal - Pin - Keyed Break Away - Wired - Inline - Strain Relief

KBNP-WD-IS-SR



		English (IN)			Metric (MM)		
Part #	Contacts	A	B	C	A	B	C
A79424-001	6	0.28	1.000	0.025	7.11	25.40	0.64
A79433-001	11	0.31	1.100		7.87	27.94	
A79442-001	16	0.34	1.300		8.64	33.02	
A79451-001	28	0.39	1.500		9.91	38.10	
A79460-001	39	0.46	1.700	0.03	11.68	43.18	0.76

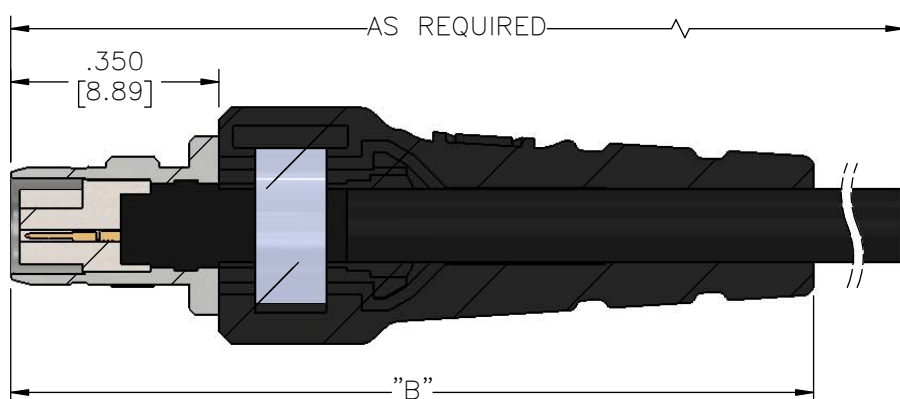
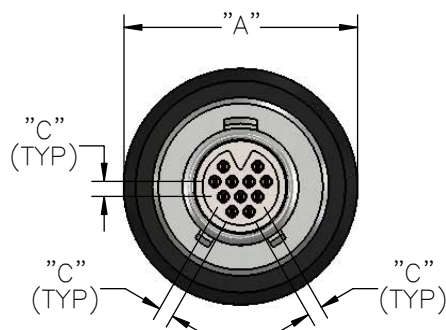
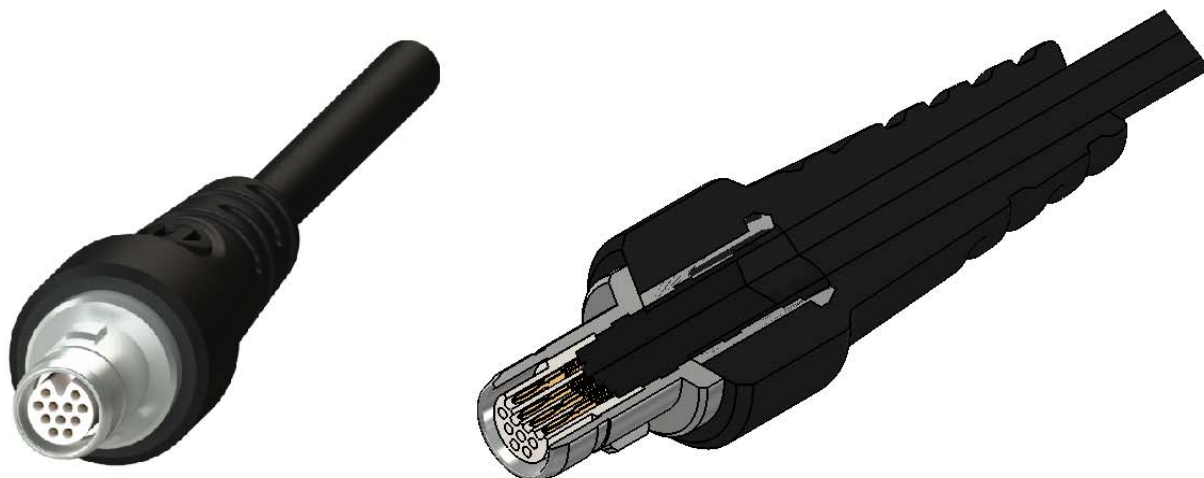
Metal - Socket - Keyed Break Away -
Wired - Inline - Strain Relief
KBNS-WD-IS-SR



English (IN)					Metric (MM)		
Part #	Contacts	A	B	C	A	B	C
A79420-001	6	0.28	1.000	0.025	7.11	25.40	0.64
A79429-001	11	0.31	1.030		7.87	26.16	
A79438-001	16	0.34	1.210		8.64	30.73	
A79447-001	28	0.39	1.500		9.91	38.10	
A79456-001	39	0.47	1.630	0.03	11.94	41.40	0.76

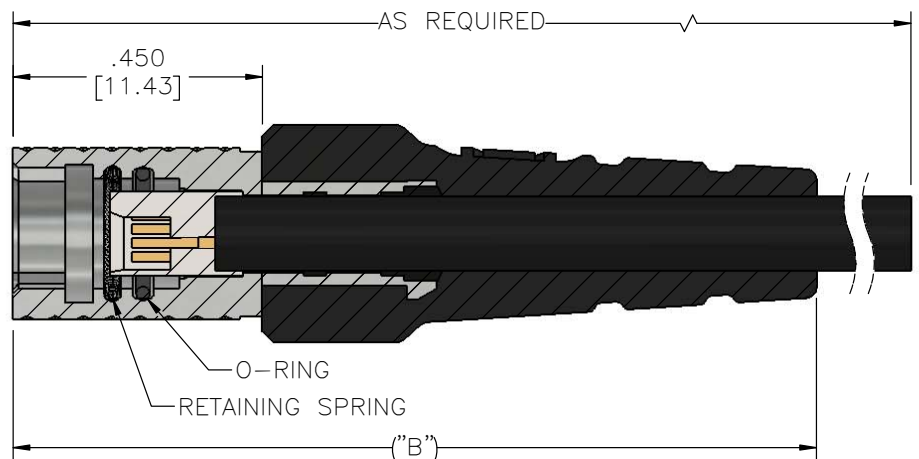
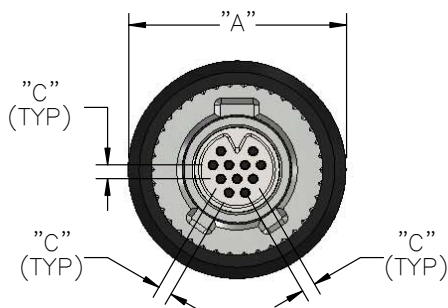
Metal - Pin - Keyed Break Away - Cabled - Overmold - Inline

KBNP-WC-OM-IS



English (IN)				Metric (MM)			
Part #	Contacts	A	B	C	A	B	C
A79421-001	6	0.360	1.450	0.025	9.14	36.83	0.64
A79430-001	11	0.393			9.98		
A79439-001	16	0.420	1.530		10.67	38.86	
A79448-001	28	0.460	1.630	0.030	11.68	41.40	0.76
A79457-001	39	0.550			13.97		

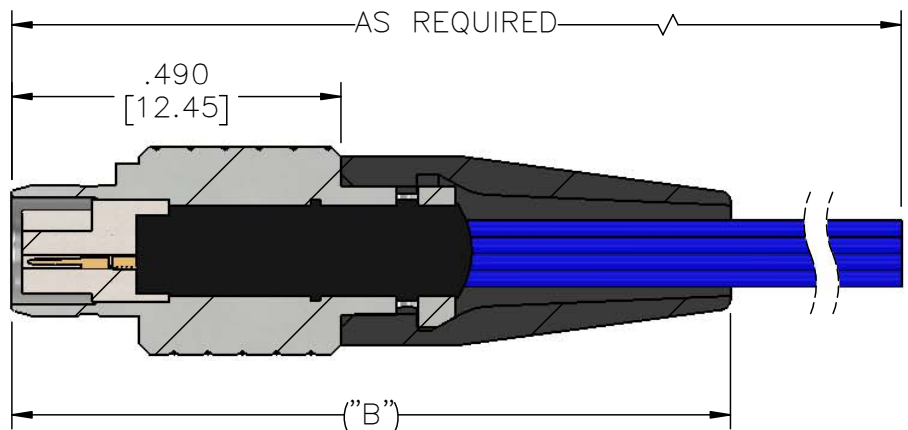
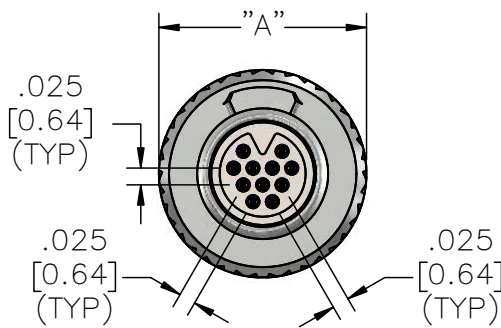
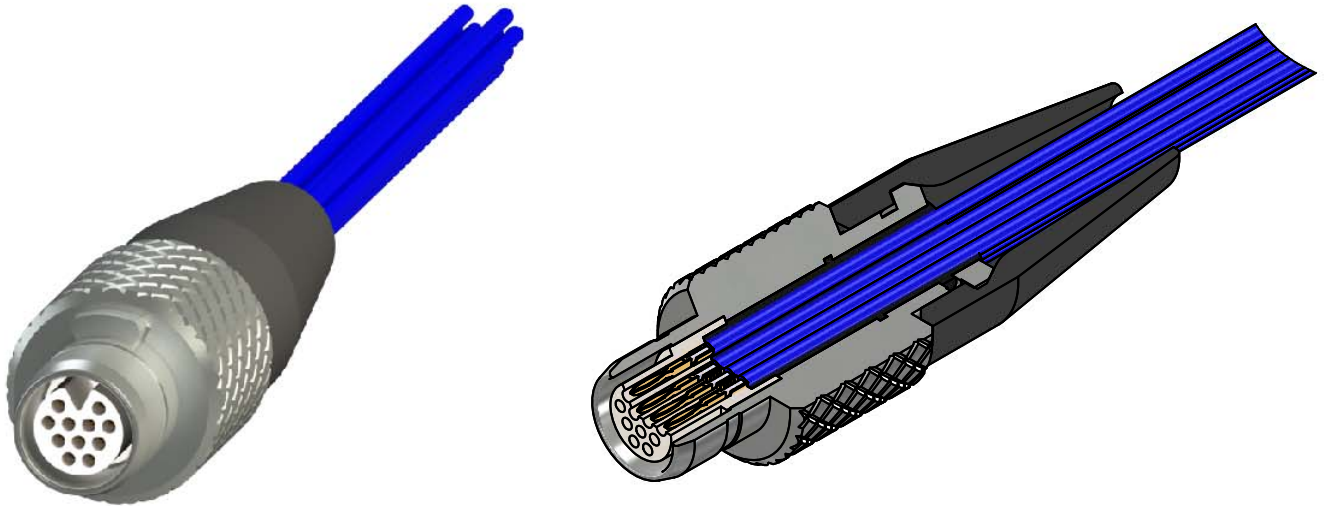
Metal - Socket - Keyed Break Away - Cable - Overmold - Inline KBNS-WC-OM-IS



Part #	Contacts	English (IN)			Metric (MM)		
		A	B	C	A	B	C
A79425-001	6	0.360	1.350	0.025	9.14	34.29	0.64
A79434-001	11	0.390			9.91		
A79443-001	16	0.420	1.430		10.67	36.32	
A79452-001	28	0.460	1.530	0.03	11.68	38.86	0.76
A79461-001	39	0.550			13.97		

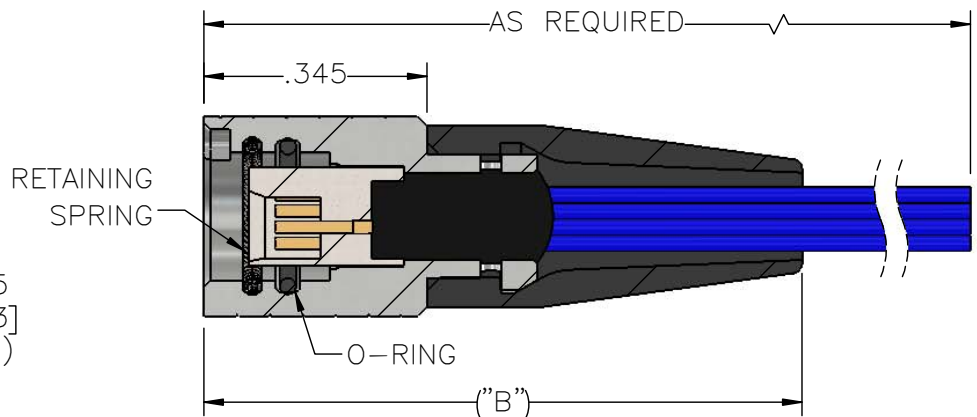
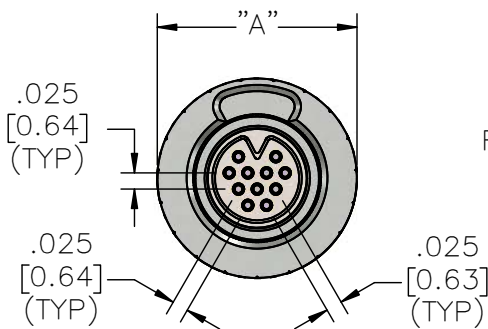
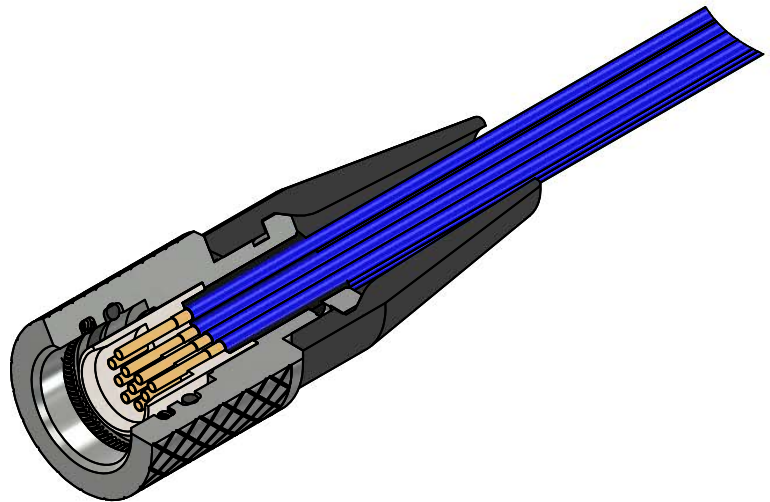
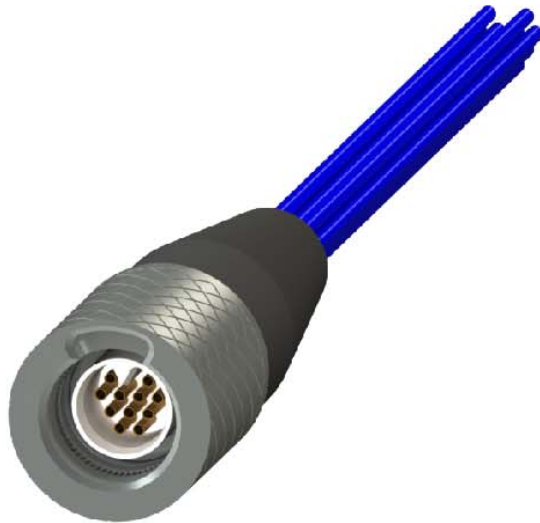
Metal - Pin - Break Away - Wired - Inline - Strain Relief

BANP-WD-IS-SR



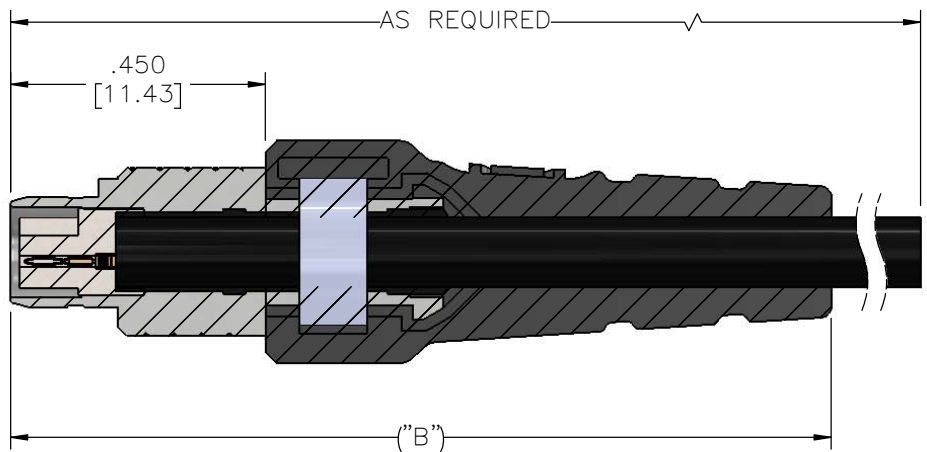
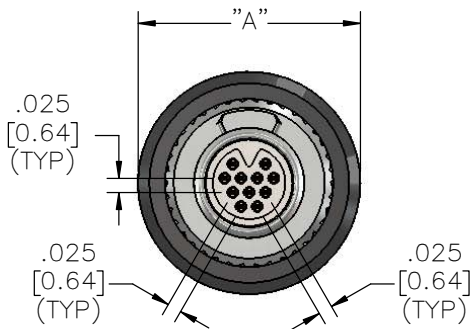
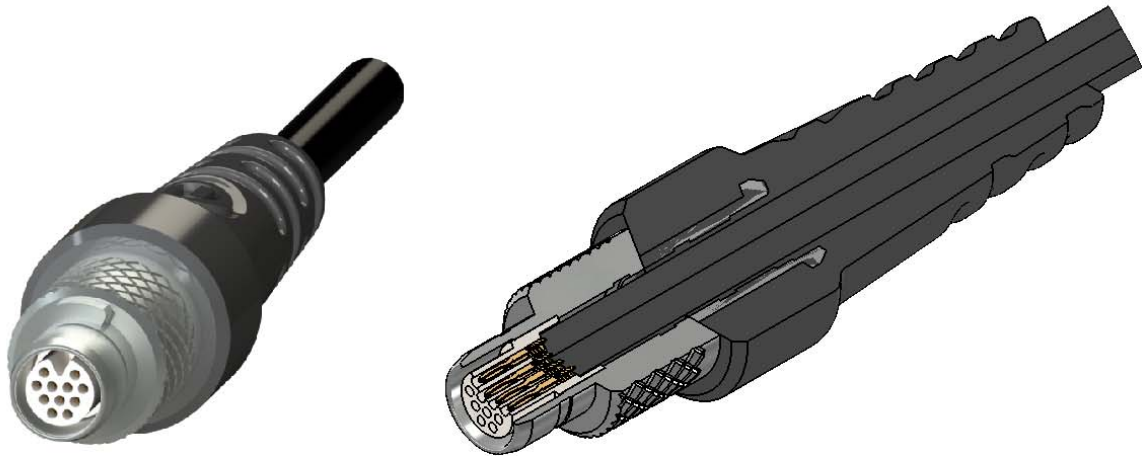
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79211-001	6	0.28	1.000	7.11	25.40
A79218-001	11	0.31	1.100	7.87	27.94
A79225-001	16	0.34	1.300	8.64	33.02
A79232-001	28	0.39	1.500	9.91	38.10

Metal - Socket - Break Away - Wired - Inline - Strain Relief BANS-WD-IS-SR



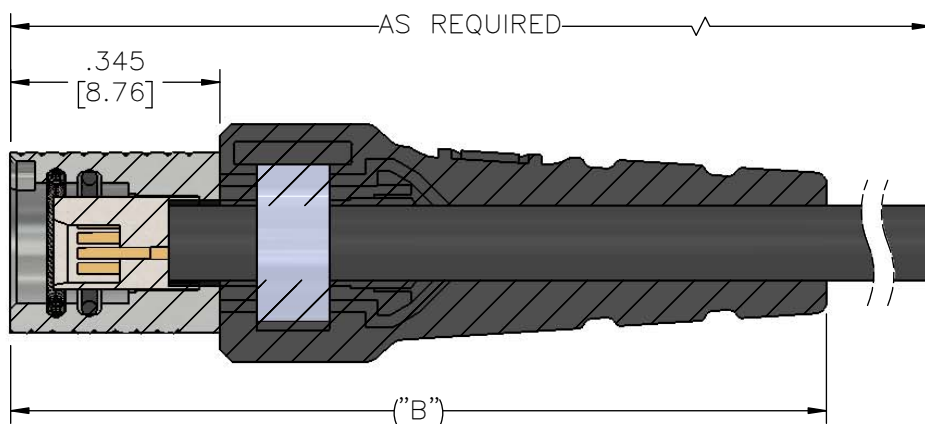
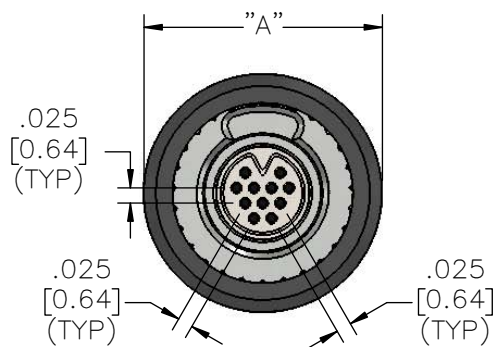
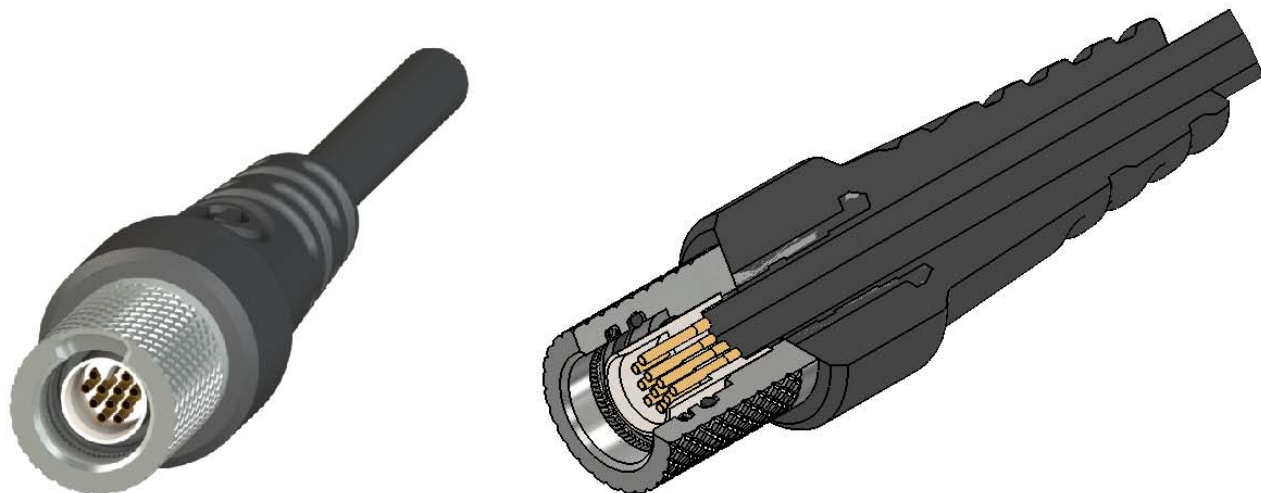
		English (IN)		Metric (MM)	
Part #	Contacts	A	B	A	B
A79208-001	6	0.28	0.900	7.11	22.86
A79215-001	11	0.31		7.87	
A79222-001	16	0.34	1.100	8.64	27.94
A79229-001	28	0.39	1.400	9.91	35.56

Metal - Pin - Break Away - Cabled - Overmold - Inline BANP-WC-OM-IS



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79335-001	6	0.36	1.450	9.14	36.83
A79331-001	11	0.39		9.91	
A79327-001	16	0.42	1.530	10.67	38.86
A79323-001	28	0.46	1.630	11.68	41.40

Metal - Socket - Break Away - Cabled - Overmold - Inline BANS-WC-OM-IS



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79334-001	6	0.36	1.350	9.14	34.29
A79330-001	11	0.39		9.91	
A79326-001	16	0.42	1.420	10.67	36.07
A79322-001	28	0.46	1.530	11.68	38.86

QUICK DISCONNECT BREAK AWAY NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
KBN (Keyed Break Away)	6 11 16	WD: Discrete Lead Wire	Standard N: Nickel Plated Brass	IS: Inline Shell Female	C Color Coded
BAN (Standard Break Away)	28 39				
Male (P - Pin)		WC: Cable	Non-Standard Options BN: Black Nickel Plated Brass	Male	OM Overmold (Contact Omnetics for Overmold Information & Availability)
					
Female (S - Socket)		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 32 AWG Max	P: Passivated Stainless Steel	SR: Inline Shell w/ Strain Relief	OR O-Ring
					
			OX: Black Oxide Finished Steel	ST: Inline Shell w/ Shrink Tube	IP68
					IP68
					RH RoHS COMPLIANT
					
EXAMPLE: KBNP-11-WC-12.0-N-IS-OM-IP68					

NANO 360® Metal

Nano Break Away Panel Mount



Electrical-Mechanical Specifications

- | | |
|--|---|
| ■ Performance: | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139 |
| ■ Contact Resistance: | 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139 |
| ■ Current Rating: | 1 Amp per MIL-DTL-32139 |
| ■ Operating Temperature: | -55°C to 125°C (200°C with High Temp Epoxy)
IP68 overmold -55°C to 85°C |
| ■ Durability: | 500 mating cycles min |
| ■ Insulation Resistance: | 5000 megohms @ 500 VDC |
| ■ Shock: | 100 g's with no discontinuities > 10 nanosecond |
| ■ Vibration: | 20 g's with no discontinuities > 10 nanosecond |
| ■ Thermal Vacuum Outgassing (Space Class): | 1.0% max TML, 0.03% max CVCM |
| ■ Mating/Unmating Force: | 2.5 oz (71 g) typical per contact |

Material Specifications

- | | |
|---------------------|--|
| ■ Contact: | Copper Alloy Per MIL-DTL-32139 |
| ■ Contact Finish: | Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate |
| ■ Insulator: | Thermoplastic per MIL-M-24519 |
| ■ Overmold: | Black Thermoplastic Polyurethane |
| ■ O-Ring: | BUNA-N |
| ■ Cable (Shielded): | 32 AWG, (7-40) tinned copper, PFA color coded, Black polyurethane jacket |
| ■ Wire: | 32 AWG (7-40) PTFE, color coded |

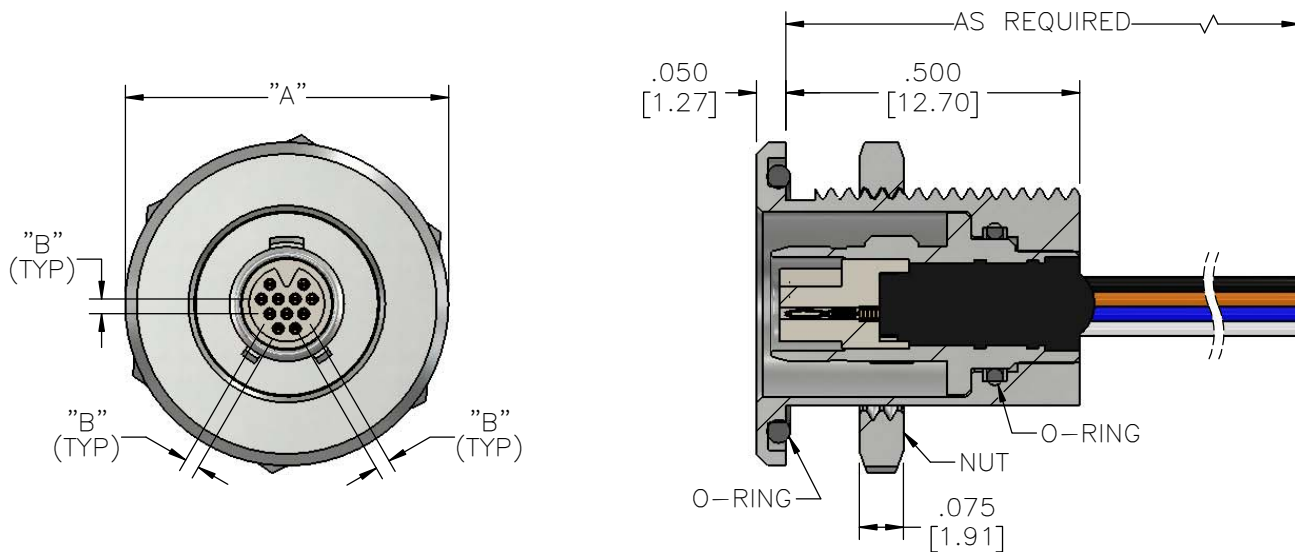
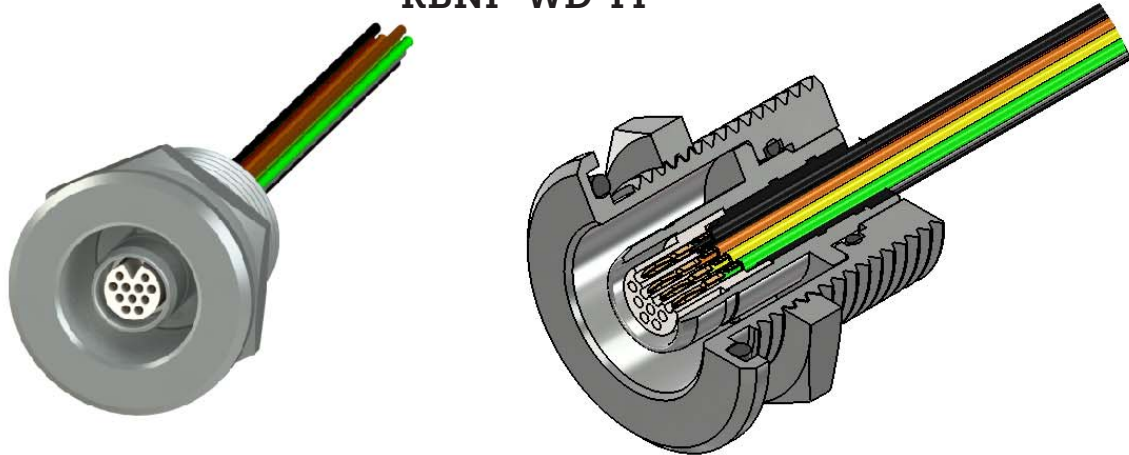
Shell Options

- | | |
|--------------------------------|--|
| ■ Brass Alloy 360 1/2 Hard: | Electroless Nickel per SAE-AMS-2404
Black Nickel per MIL-P-18317 |
| ■ Stainless Steel, 300 Series: | Passivated per SAE-AMS-2700
Black Oxide Finish per MIL-DTL-13924, Class 4*, Passivated per SAE-AMS-2700 |

* less resistance to salt spray test.

Metal - Pin - Keyed Break Away - Wired - Front Panel

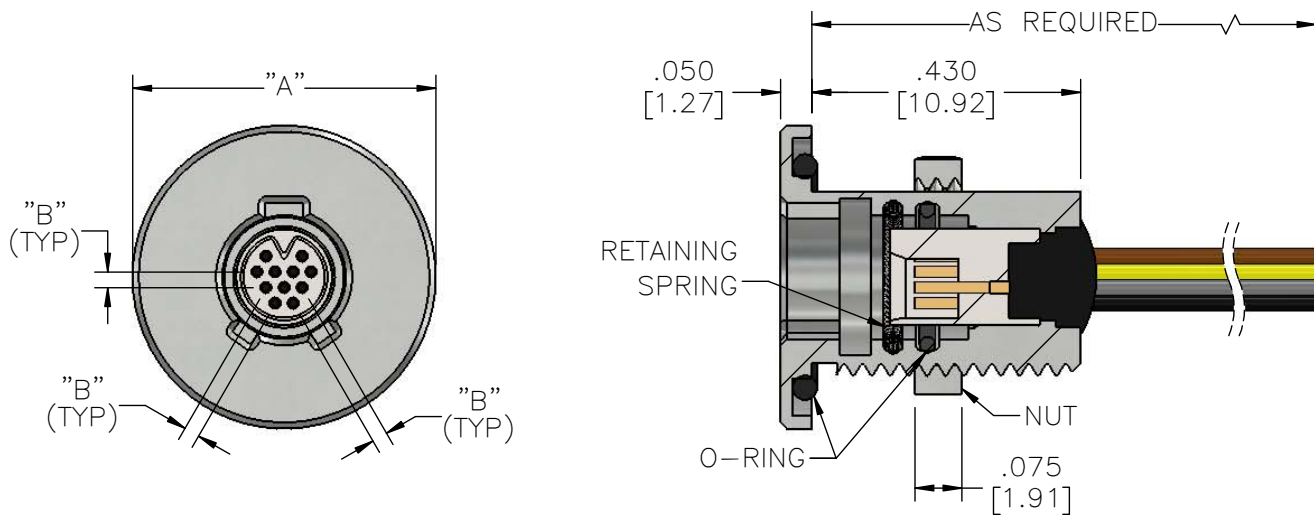
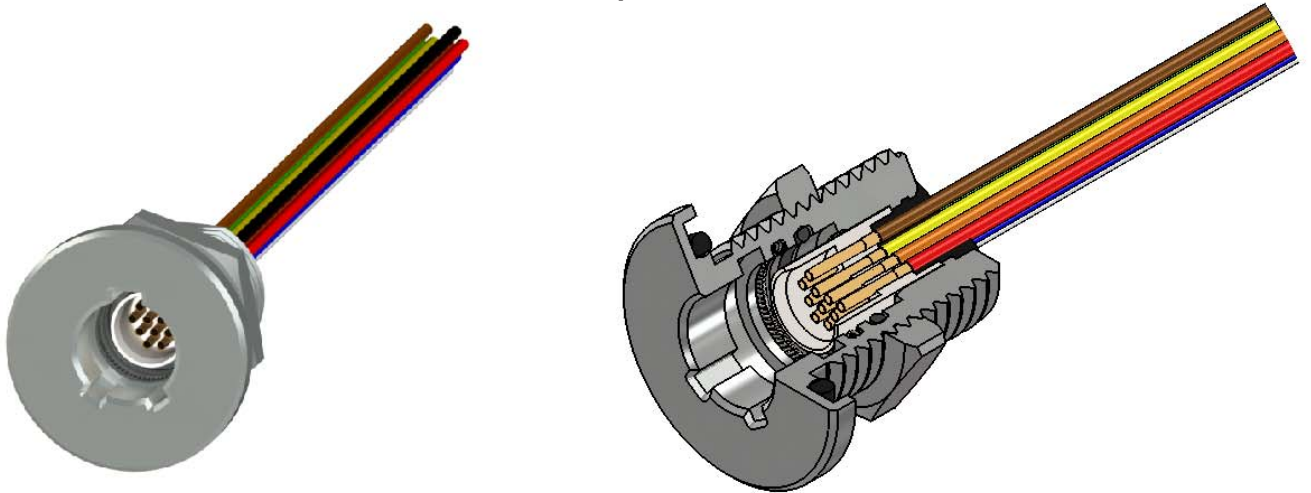
KBNP-WD-FP



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79426-001	6	0.510	0.025	12.95	0.64
A79435-001	11	0.550		13.97	
A79444-001	16	0.590		14.99	
A79453-001	28	0.635		16.13	
A79462-001	39	0.765	0.030	19.43	0.76

Metal - Socket - Keyed Break Away - Wired/Cable - Front Panel

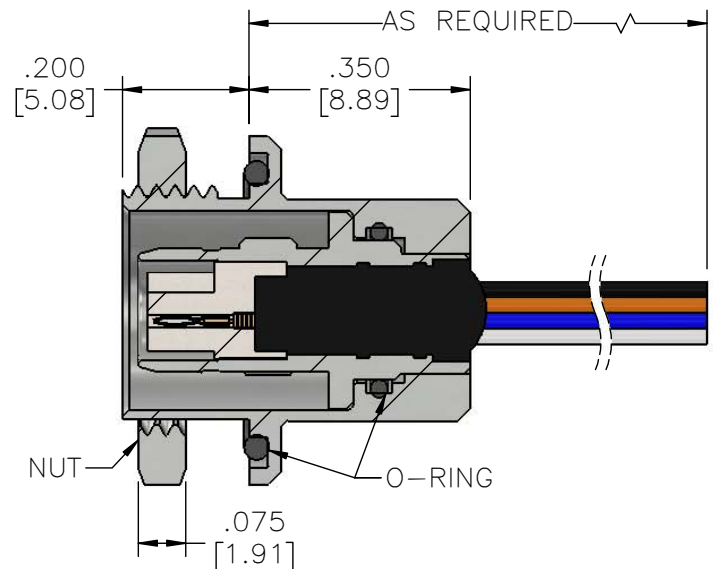
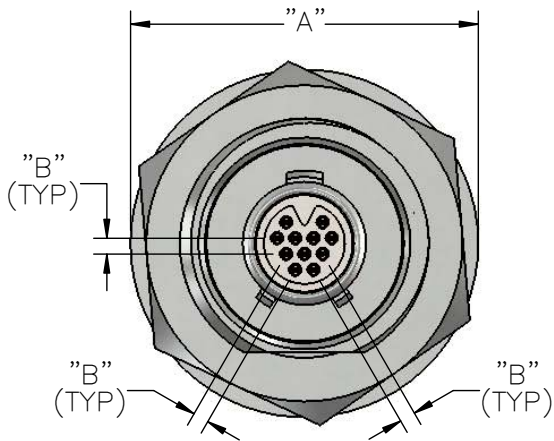
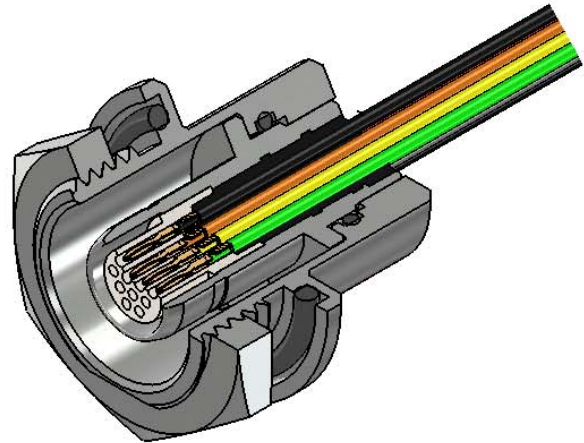
KBNS-WC/WD-FP



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79422-001	6	0.465	0.025	11.81	0.64
A79431-001	11	0.485		12.32	
A79440-001	16	0.515		13.08	
A79449-001	28	0.550		13.97	
A79458-001	39	0.690	0.030	17.53	0.76

Metal - Pin - Keyed Break Away - Wired - Rear Panel - IP68

KBNP-WD-RP-IP68

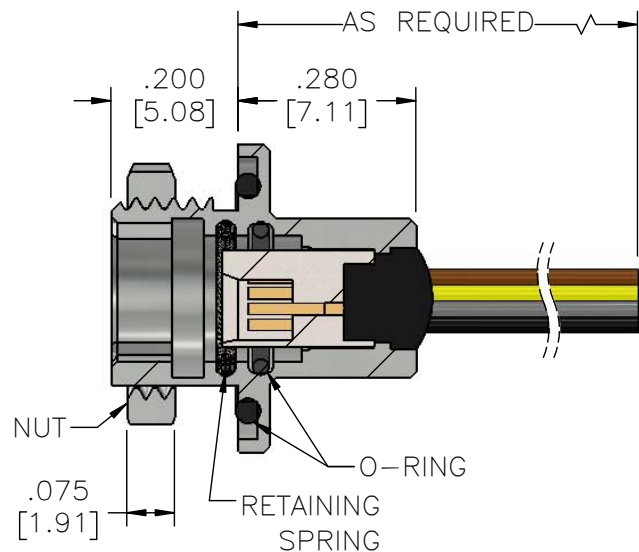
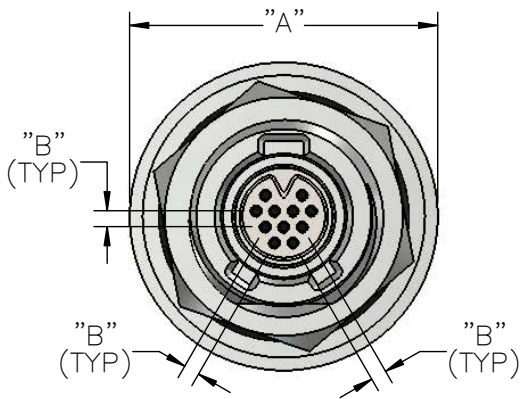
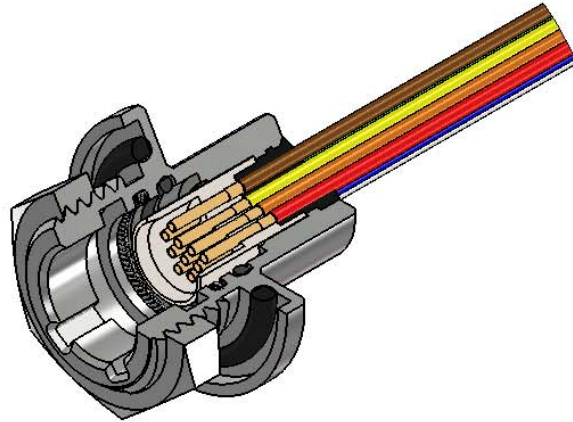


English (IN) Metric (MM)

Part #	Contacts	A	B	A	B
A79427-001	6	0.510	0.025	12.95	0.64
A79436-001	11	0.550		13.97	
A79445-001	16	0.590		14.99	
A79454-001	28	0.635		16.13	
A79463-001	39	0.765	0.030	19.43	0.76

Metal - Socket - Keyed Break Away - Wired/Cable - Rear Panel

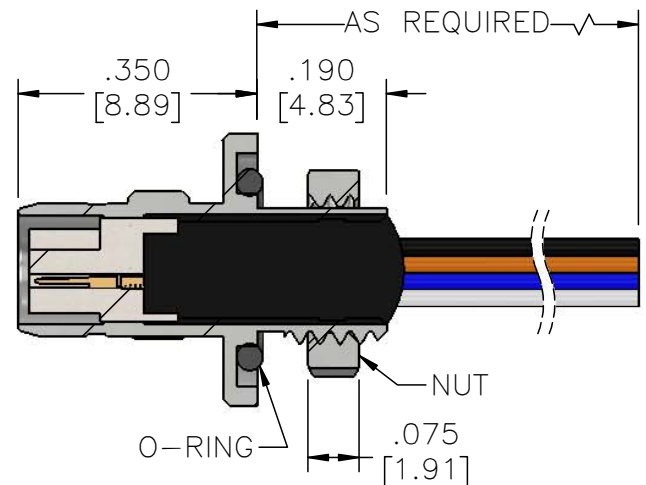
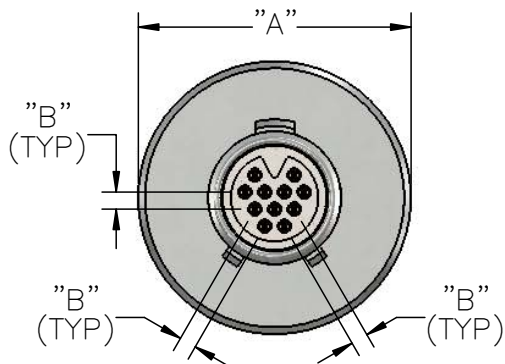
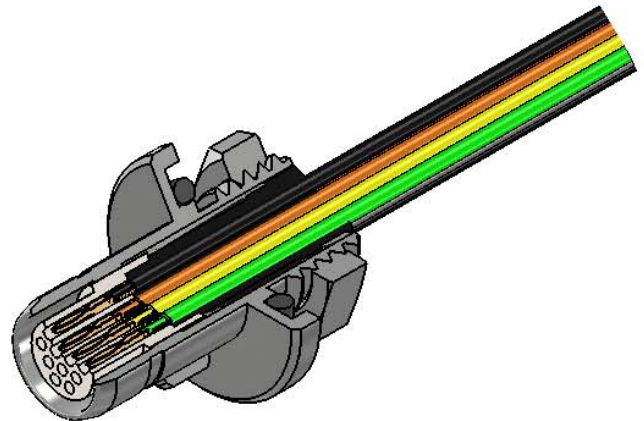
KBNS-WC/WD-RP



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79423-001	6	0.465	0.025	11.81	0.64
A79432-001	11	0.485		12.32	
A79441-001	16	0.515		13.08	
A79450-001	28	0.590		14.99	
A79459-001	39	0.650	0.030	16.51	0.76

Metal - Pin - Keyed Break Away - Wired - Protruding Panel - IP68

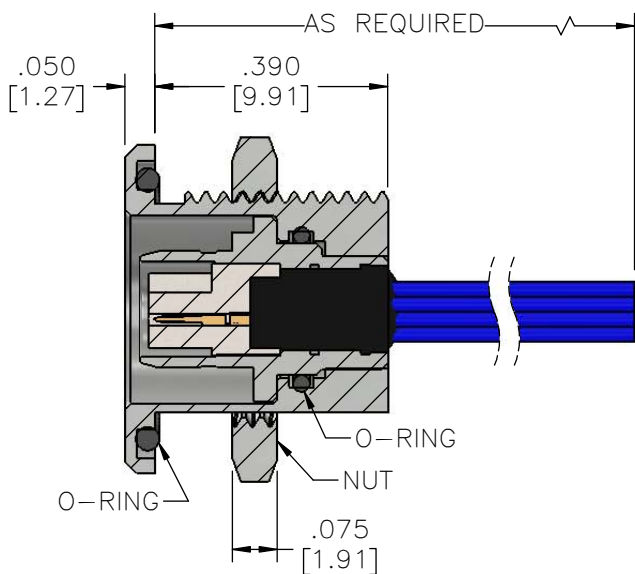
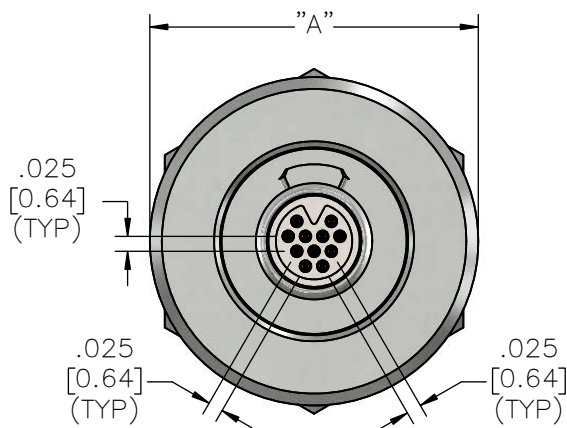
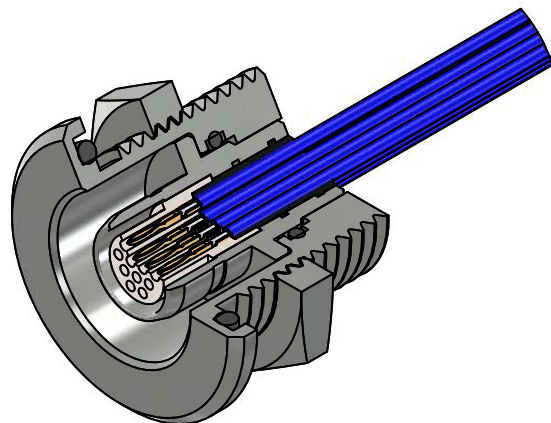
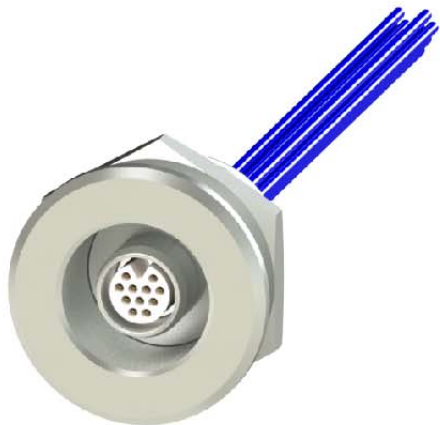
KBNP-WD-PP-IP68



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79428-001	6	0.330	0.025	8.38	0.64
A79437-001	11	0.400		10.16	
A79446-001	16	0.415		10.54	
A79455-001	28	0.460		11.68	
A79464-001	39	0.575	0.030	14.61	0.76

Metal - Pin - Break Away - Wired - Front Panel

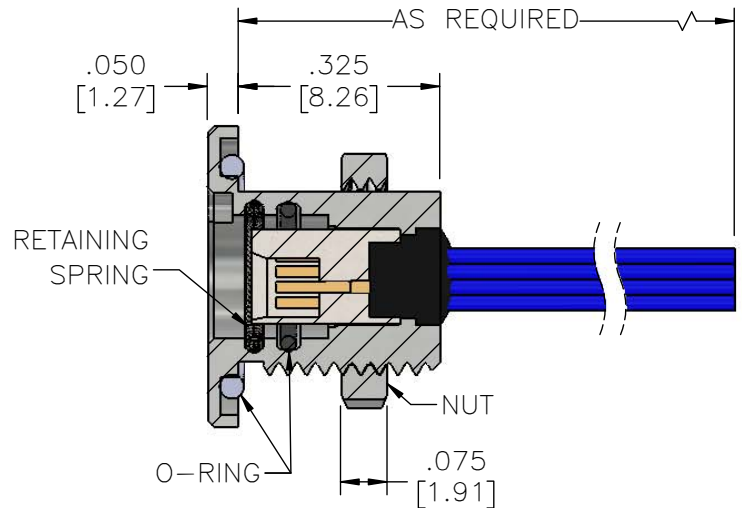
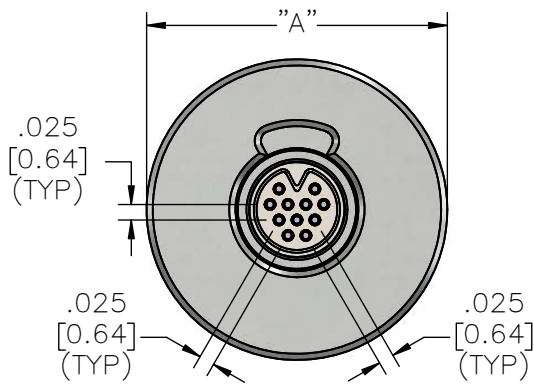
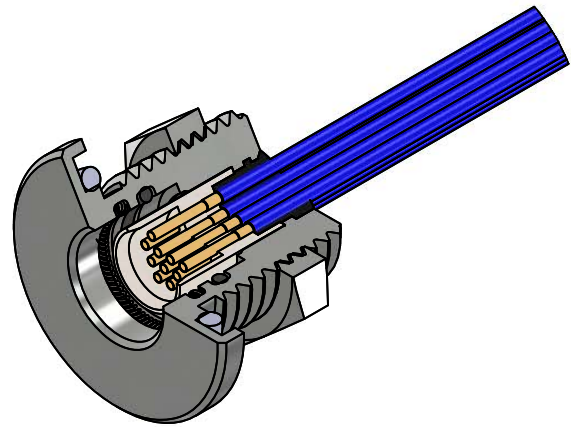
BANP-WD-FP



Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79212-001	6	0.510	0.305	12.95	7.75
A79219-001	11	0.550		13.97	
A79226-001	16	0.590		14.99	
A79233-001	28	0.515	0.325	13.08	8.26

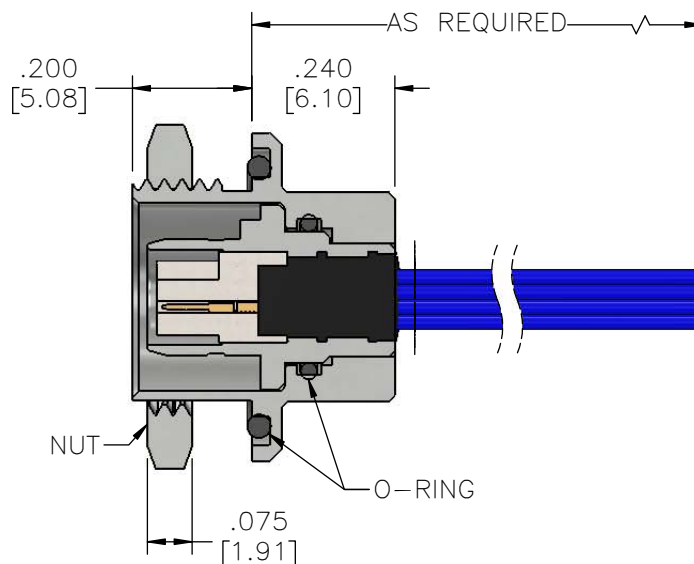
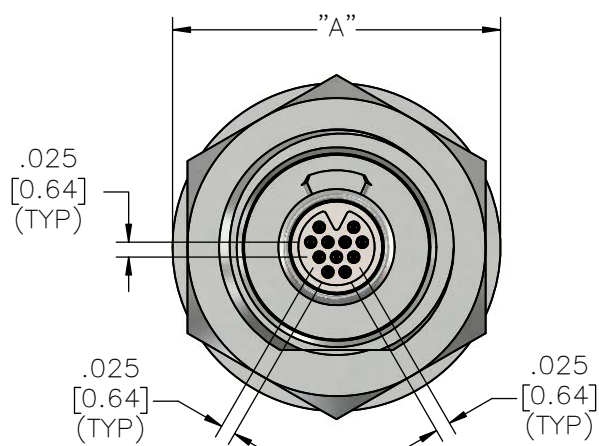
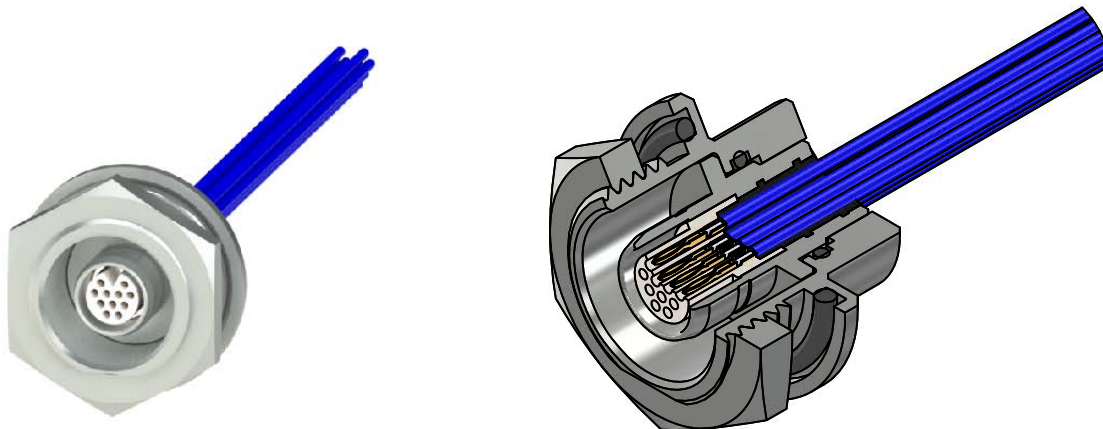
Metal - Socket - Break Away - Wired - Front Panel

BANS-WD-FP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A79209-001	6	0.465	11.81
A79216-001	11	0.485	12.32
A79223-001	16	0.515	13.08
A79230-001	28	0.550	13.97

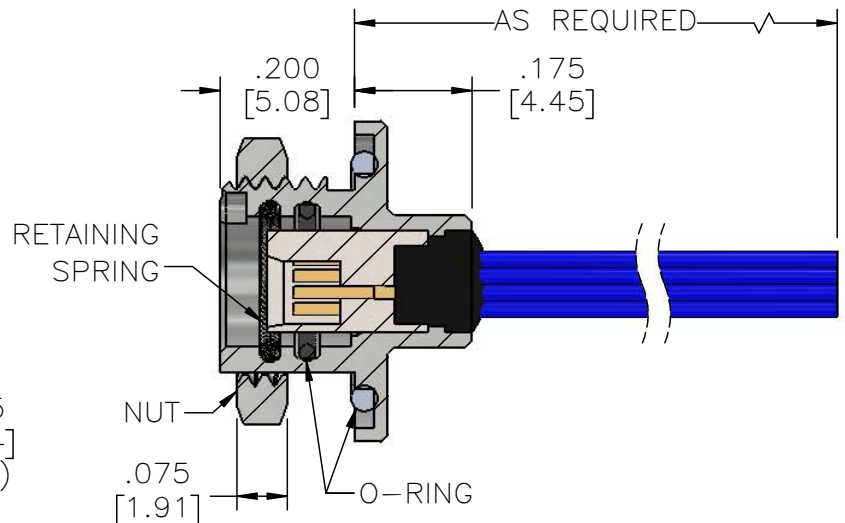
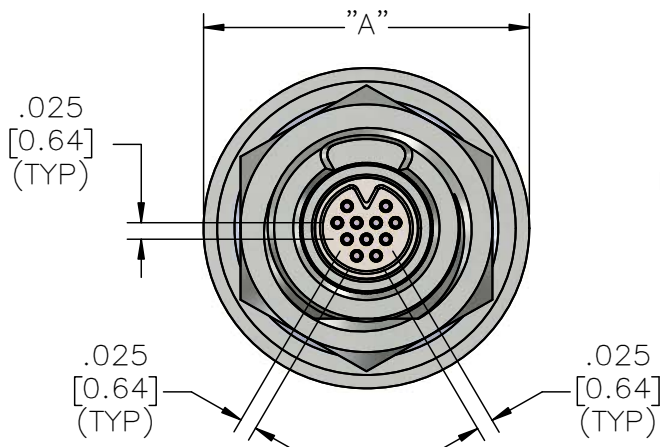
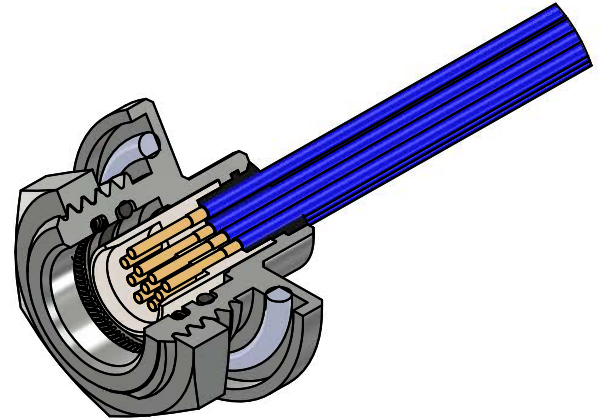
Metal - Pin - Break Away - Wired - Rear Panel BANP-WD-RP



English (IN) Metric (MM)

Part #	Contacts	A	A
A79213-001	6	0.510	12.95
A79220-001	11	0.550	13.97
A79227-001	16	0.590	14.99
A79234-001	28	0.635	16.13

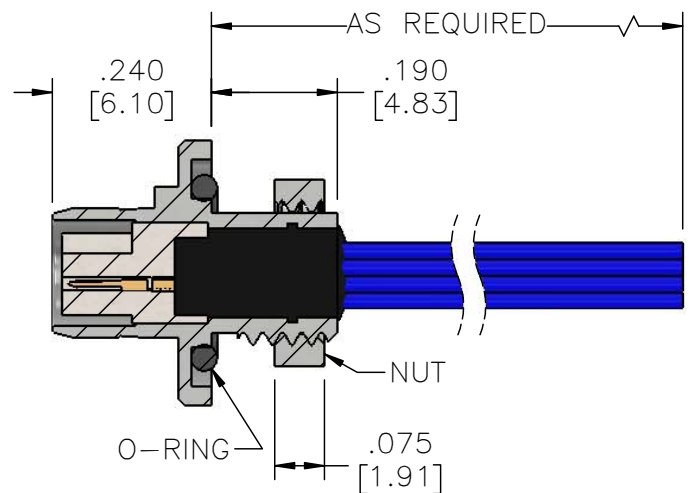
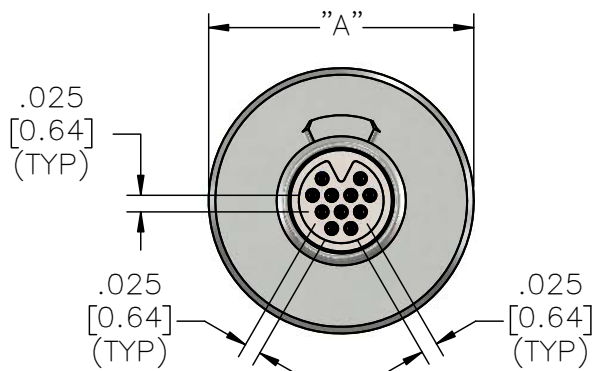
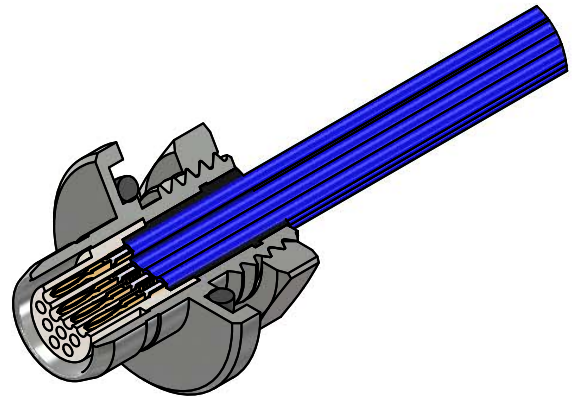
Metal - Socket - Break Away - Wired - Rear Panel BANS-WD-RP



		English (IN)	Metric (MM)
Part #	Contacts	A	A
A79210-001	6	0.465	11.81
A79217-001	11	0.485	12.32
A79224-001	16	0.515	13.08
A79231-001	28	0.550	13.97

Metal - Pin - Break Away - Wired - Protruding Panel

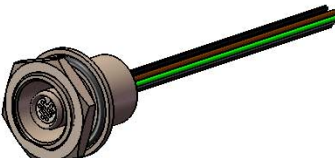
BANP-WD-PP



English (IN) Metric (MM)

Part #	Contacts	A	A
A79214-001	6	0.330	8.38
A79221-001	11	0.400	10.16
A79228-001	16	0.415	10.54
A79235-001	28	0.460	11.68

BREAK AWAY NANO CIRCULAR DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
KBN (Keyed Break Away)	6 11 16	WD: Discrete Lead Wire	Standard N: Nickel Plated Brass	FP: Front Panel Mount	C Color Coded
BAN (Standard Break Away)	28 39				
Male (P - Pin)		WC: Cable	Non-Standard Options BN: Black Nickel Plated Brass		OR O-Ring
				RP: Rear Panel Mount	
Female (S - Socket)		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4" 32 AWG Max	P: Passivated Stainless Steel		IP68
					RH RoHS COMPLIANT
			OX: Black Oxide Finished Steel	PP: Protruding Panel Mount (Male Only)	
					
		EXAMPLE: KBNS-11-WD-18.0-C-N-RP-IP68			

NANO 360[®] Plastic

SureCon 360° IP68



Electrical-Mechanical Specifications

- | | | |
|--------------------------|-------|--|
| ■ Performance: | _____ | Product family tested to and passed or exceeded the performance specifications of Table VIII of MIL-DTL-32139A |
| ■ Contact Resistance: | _____ | 71 Milliohm Max (71mV Drop Max) @ 1.0 Amps per MIL-DTL-32139A |
| ■ Current Rating: | _____ | 1 Amps per MIL-DTL-32139A |
| ■ Operating Temperature: | _____ | -55°C to 85°C |
| ■ Durability: | _____ | >2000 mating cycles min |
| ■ Insulation Resistance: | _____ | 5000 megohms @ 100 VDC |
| ■ Shock: | _____ | 100 g's with no discontinuities > 1 nanosecond |
| ■ Vibration: | _____ | 20 g's with no discontinuities > 1 nanosecond |
| ■ Mating/Unmating Force: | _____ | 3 oz (0.085 kg) max per contact |

Material Specifications

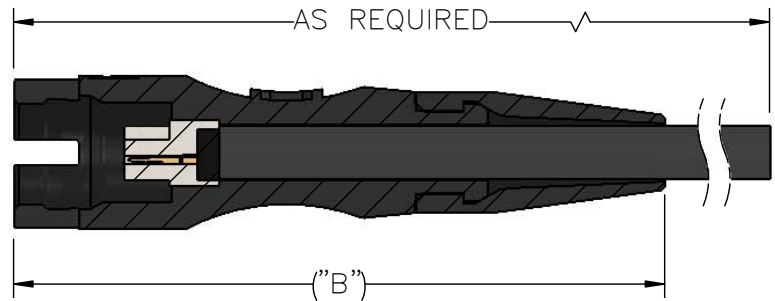
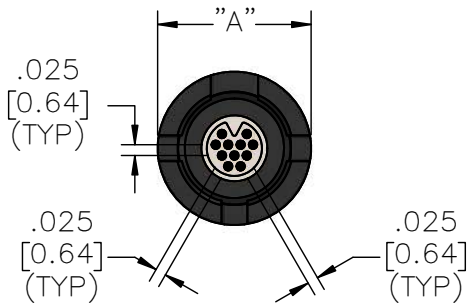
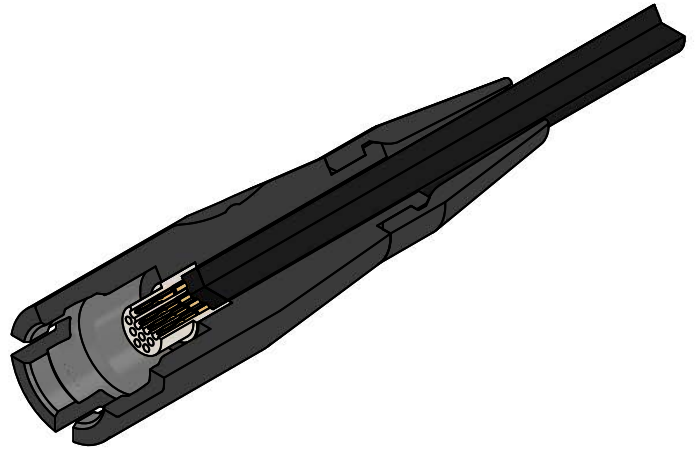
- | | | |
|---------------------|-------|---|
| ■ Contact: | _____ | Copper Alloy per MIL-DTL-32139 |
| ■ Contact Finish: | _____ | Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate |
| ■ Insulator: | _____ | Thermoplastic per MIL-M-24519 |
| ■ O-Ring: | _____ | BUNA-N |
| ■ Cable (Shielded): | _____ | 32 AWG, (7-40) tinned copper, PFA color coded Black polyurethane jacket |

Shell Specifications

- | | | |
|---------------------|-------|----------------------------|
| ■ Shell (Overmold): | _____ | Polyester |
| ■ Shell Relief: | _____ | Thermoplastic Polyurethane |

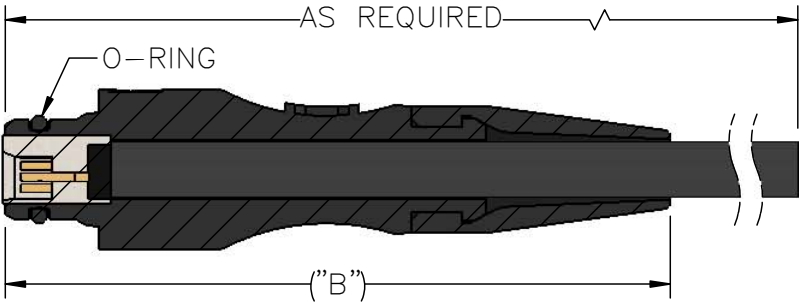
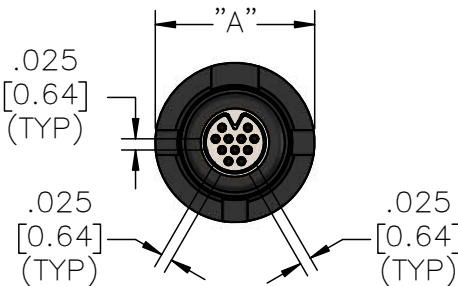
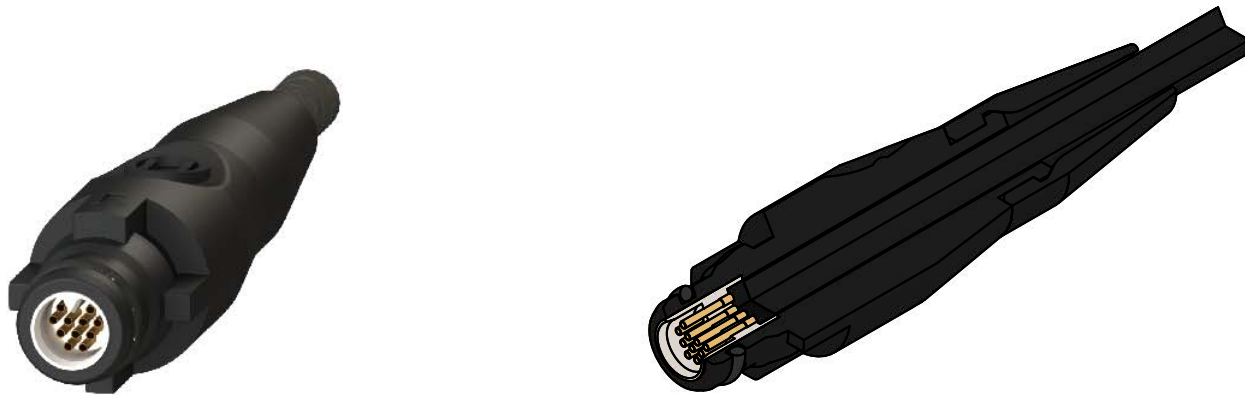
* less resistance to salt spray test.

Plastic - Pin - SureCon 360° - Cabled - Overmold - Inline ONCP-WC-OM-IS



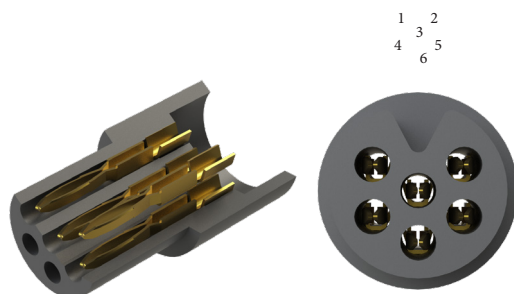
Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79300-001	6	0.325	1.250	8.26	31.75
A79303-001	11	0.356	1.510	9.04	38.35
A79306-001	16	0.384	1.890	9.75	48.01

Plastic - Socket - SureCon 360° -
Cabled - Overmold - Inline
ONCS-WC-OM-IS

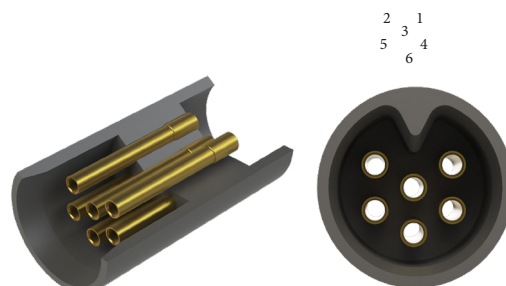


Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79301-001	6	0.330	1.460	8.38	37.08
A79304-001	11	0.360	1.490	9.14	37.85
A79307-001	16	0.380	1.670	9.65	42.42

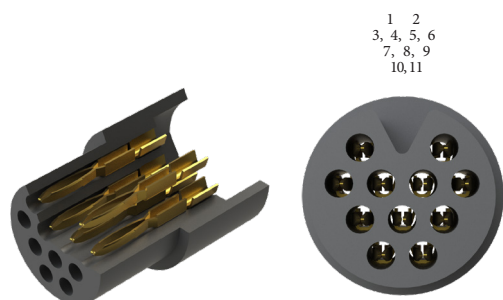
SureCon 360° IP68



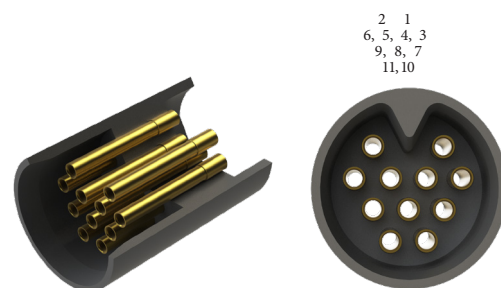
6 Pin Connector



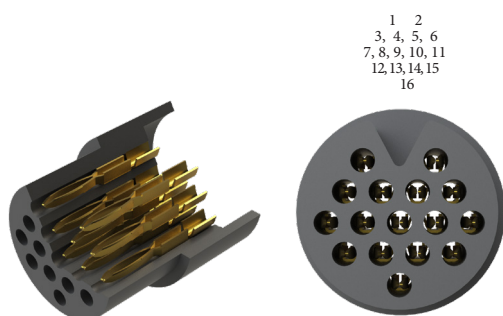
6 Socket Connector



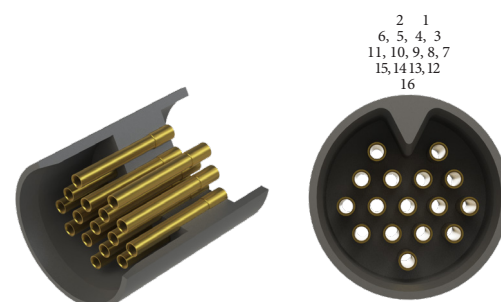
11 Pin Connector



11 Socket Connector



16 Pin Connector



16 Socket Connector

28-Contact PFA Color Code

Socket #	Color
1	Black
2	Brown
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Violet
9	Gray
10	White
11	White/Black
12	White/Brown
13	White/Red
14	White/Orange
15	White/Yellow
16	White/Green

SureCon 360° IP68

Series	# of Contacts	Termination Type	Shell Material and Finish	Shell Type	Options
ONC	6	WC	IS	Standard:	OM
	11	Cable	Inline Shell (Male)	Plastic Overmold	Overmolded Strain Relief
Male (P - Pin)	16				
Female (S - Socket)			IS		RH
		Wire/Cable Length: 18.0=18.0" Standard Option "XX.X" = Custom Length i.e. 23.4"	Inline Shell (Female) 		RoHS COMPLIANT 
		32 AWG Max			

Example:
ONCS-11-WC-18.0-C-COM



Didn't find what you were looking for?

Omnetics provides a wide range of capabilities to design and create connectors that fit your individual needs!



CUSTOM OVERMOLDS

INDUSTRIAL

New connector designs and materials are focused on small size and rugged superiority to meet the extreme reliability demands placed on petroleum electronics, including high temperatures, shock, and vibration.



SPACE

Omnetics Connector Corporation has a rich history of supporting orbital and deep space projects. We offer multiple levels of space screening to complement our highly rugged, durable, and light-weight connectors.



MEDICAL

Medical companies and researchers have relied on Omnetics' high quality Micro and Nano connectors for a variety of challenging applications. Omnetics is capable of building samples and prototypes for initial test, biocompatibility, and FDA approval, in addition to operating a 10,000 clean room system as an added value service.



AVIATION

Reliable and durable connectors are needed to keep planes, helicopters, and unmanned aerial systems running smoothly and safely. Omnetics helps aviation applications deliver information and power in small and light-weight form factors.



DEFENSE

Military applications rely on Omnetics connectors to deliver information safely and reliably in the most demanding and ruggedized environments. Omnetics connectors can help reduce size and weight while meeting and exceeding military standards.



ROBOTICS

As the robotics industry matures and evolves, Omnetics' reliable, durable, and light-weight connectors are becoming more important for delivering data and electrical signals to robotic systems.



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OMNETICS
CONNECTOR CORPORATION