

# NANO 360<sup>®</sup> 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)  
IP68 overmold -55°C to 85°C
- 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
- 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

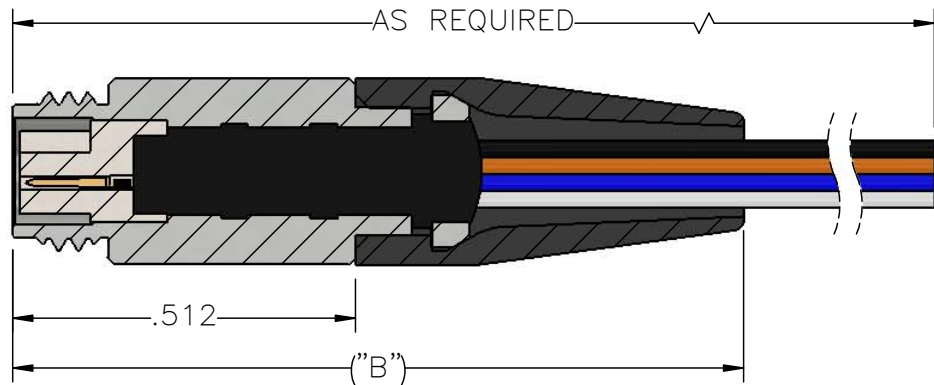
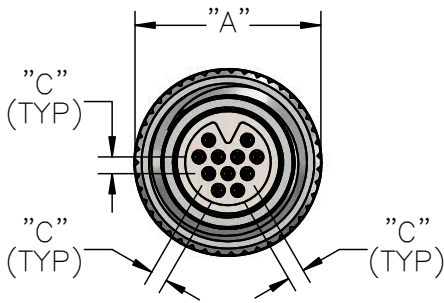
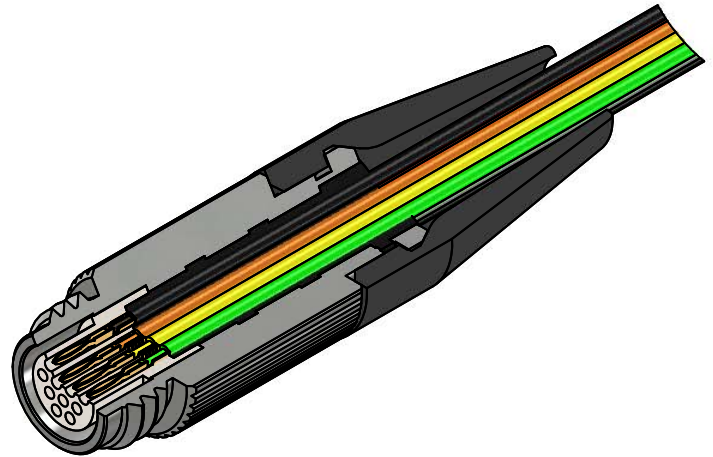
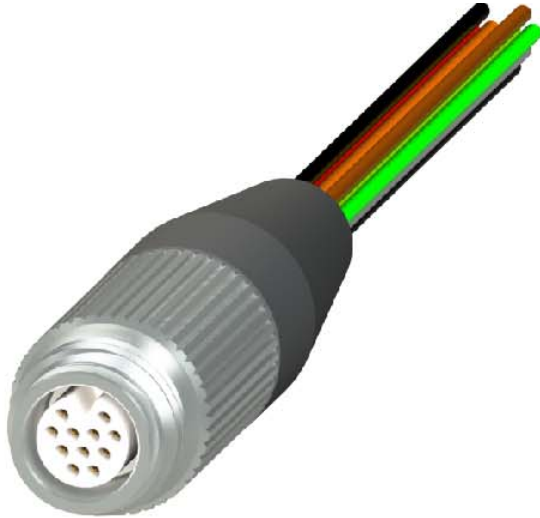
### Shell Options

- 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.

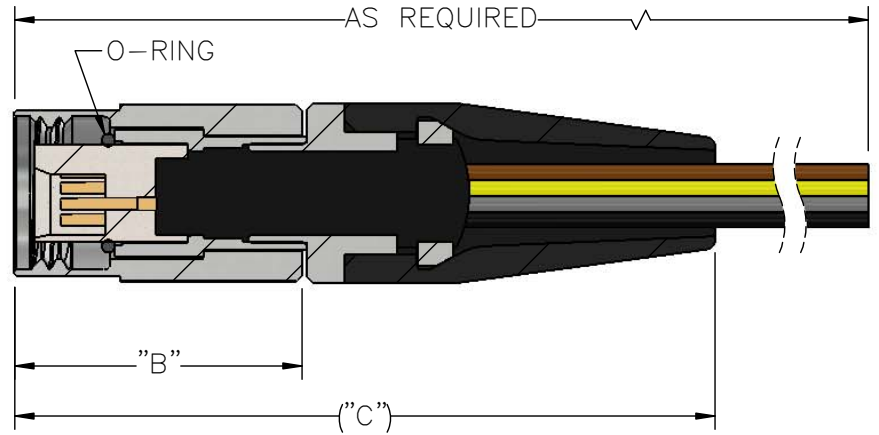
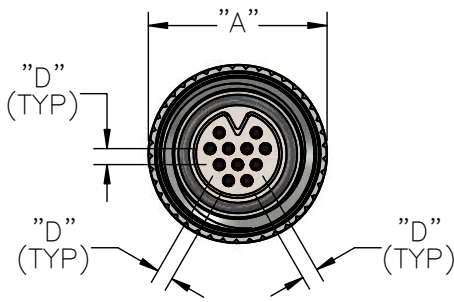
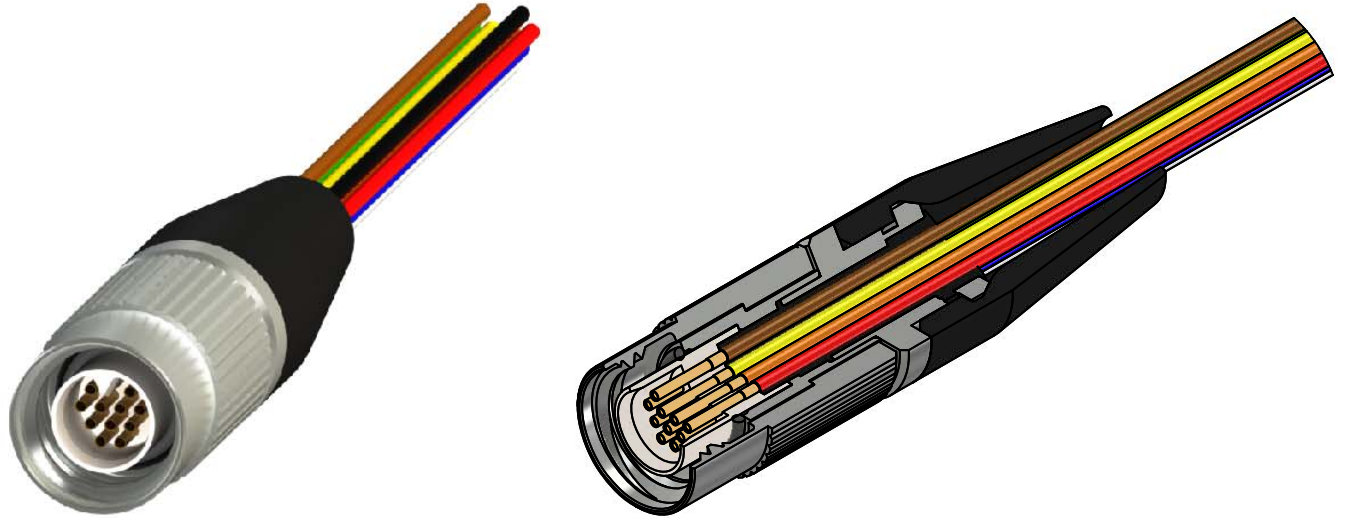
# Metal - Pin - Threaded - Wired - Inline - Strain Relief

MNCP-WD-IS-SR



Part #	Contacts	English (IN)			Metric (MM)		
		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		9.40	40.64	
A79465-001	39	0.47	1.7	0.030	11.81	43.18	0.76

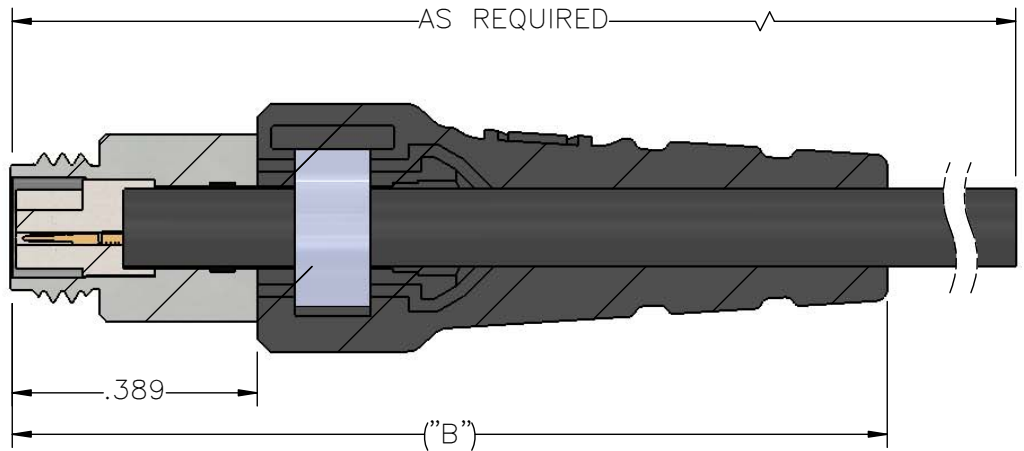
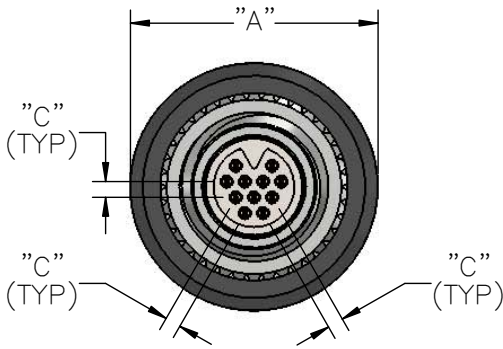
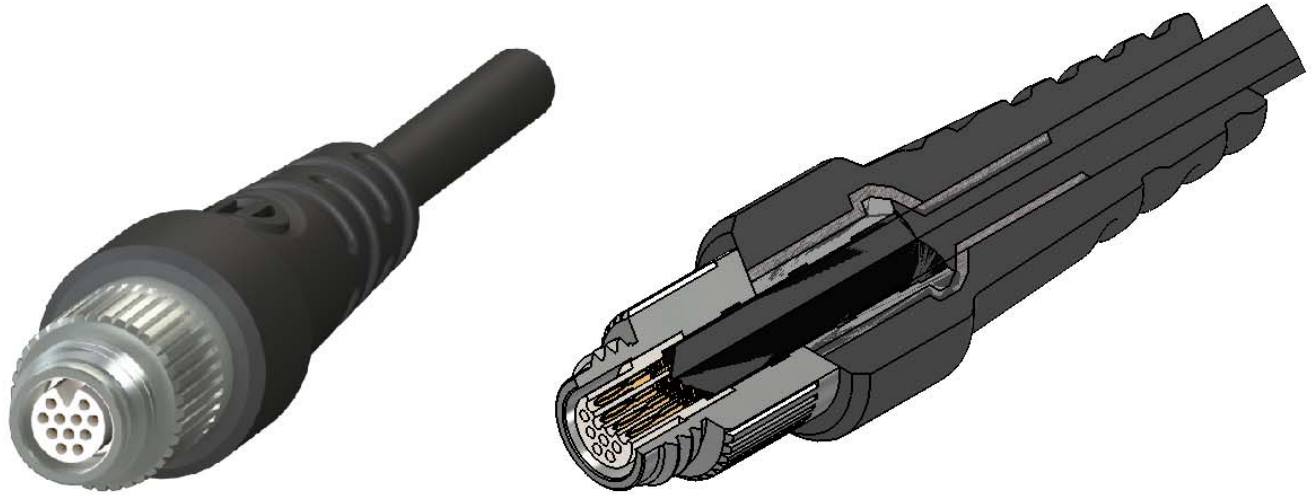
## Metal - Socket - Threaded - Wired - Inline - Strain Relief MNCS-WD-IS-SR



Part #	Contacts	English (IN)				Metric (MM)			
		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		1.3		7.11	7.11		
A79155-001	16	0.33		1.6		8.38	7.11		
A79157-001	28	0.37	0.51	1.6	0.030	9.40	9.45	40.64	0.76
A79156-001	39	0.37				9.40	11.4		

# Metal - Pin - Threaded - Cabled - Overmold - Inline - IP68

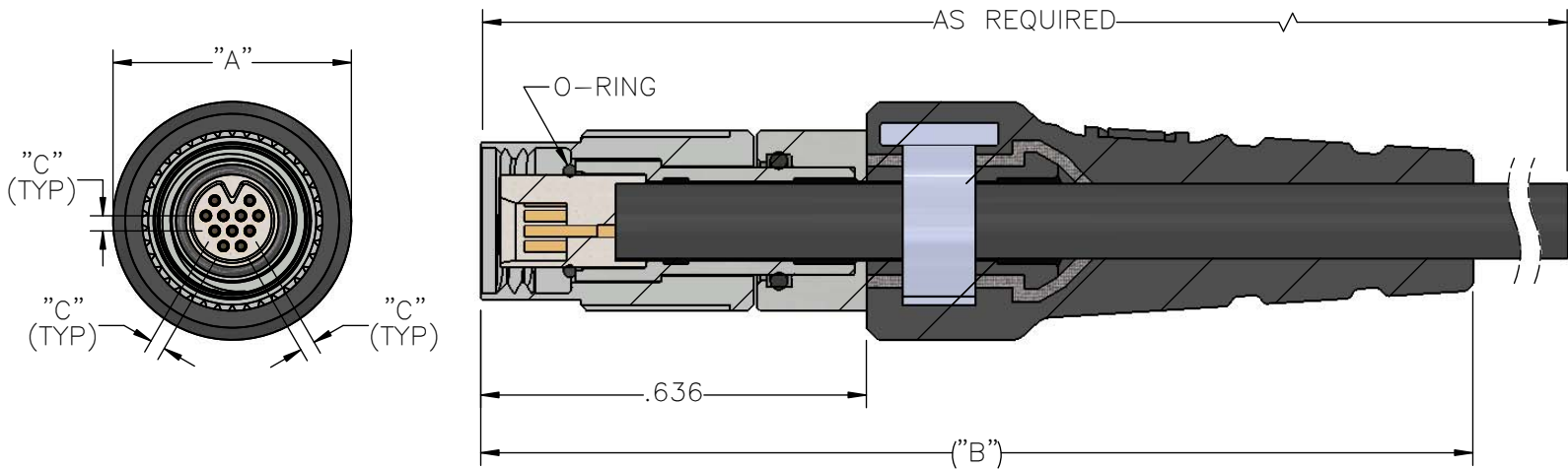
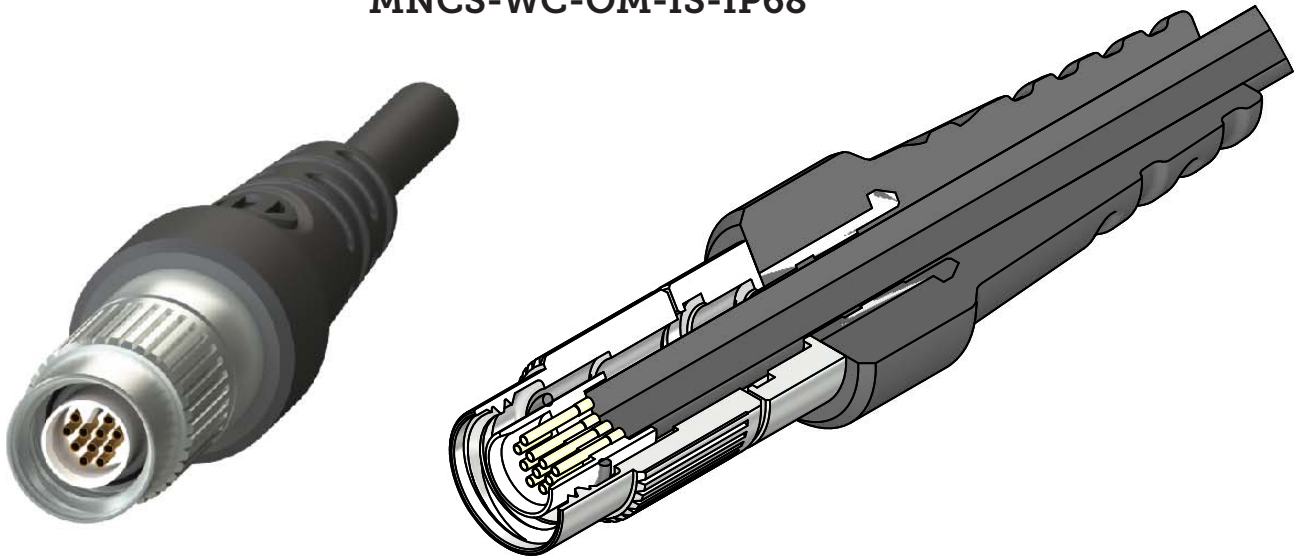
MNCP-WC-OM-IS-IP68



Part #	Contacts	English (IN)			Metric (MM)		
		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		11.68	39.88	
A79482-001	39	0.55		0.030	13.97		0.76

# Metal - Socket - Threaded - Cabled - Overmold - Inline - IP68





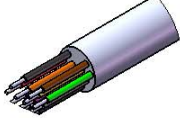






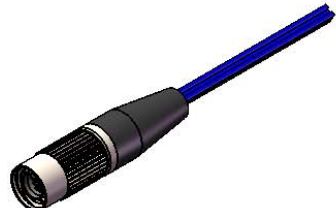

MNCS-WC-OM-IS-IP68



Part #	Contacts	English (IN)			Metric (MM)		
		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 THREADED DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

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

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

## 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 @ 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
- 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

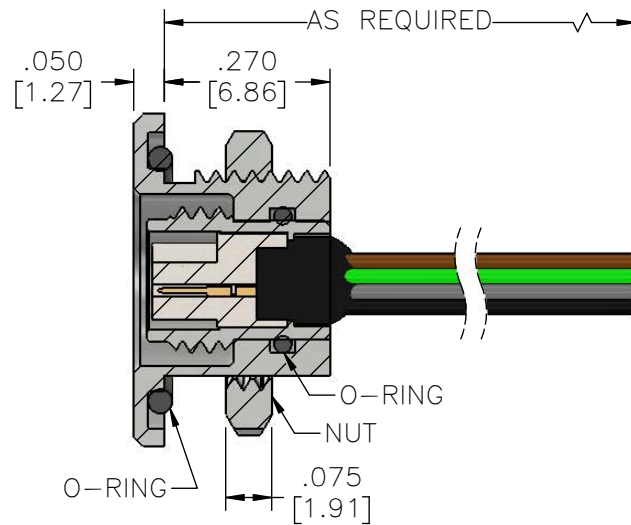
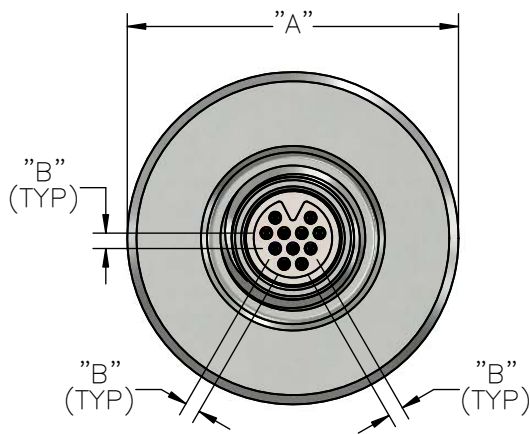
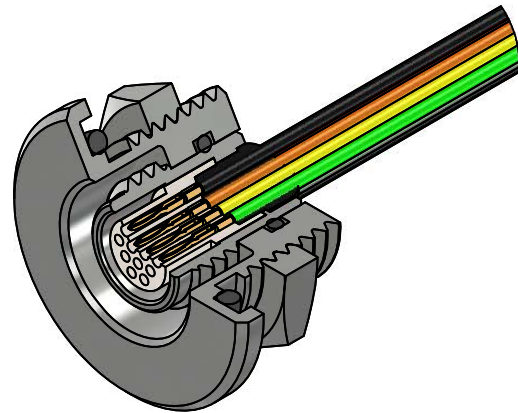
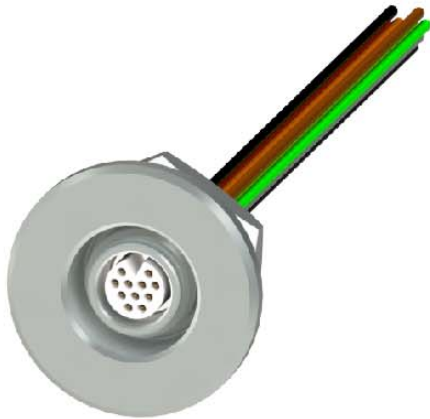
### Shell Options

- 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

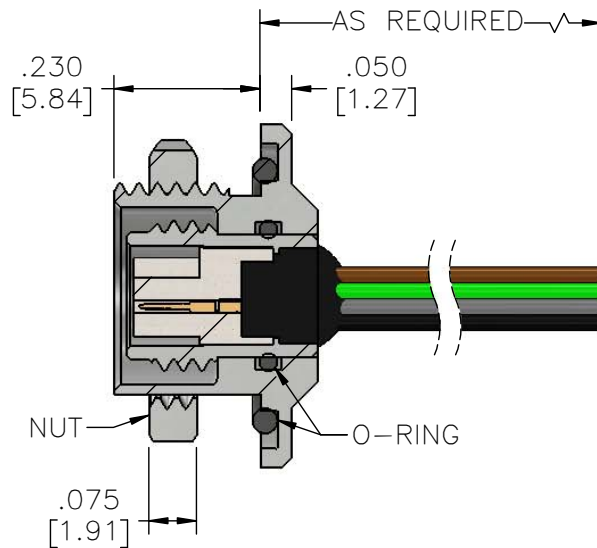
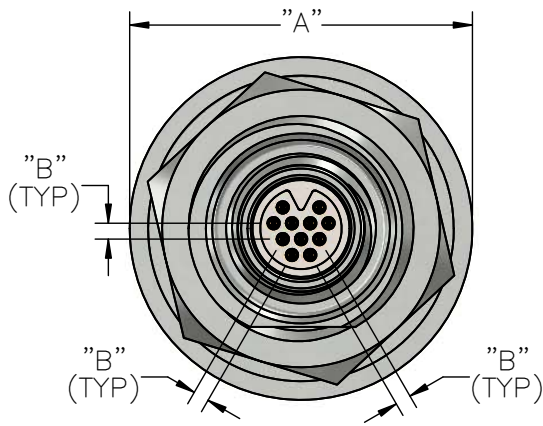
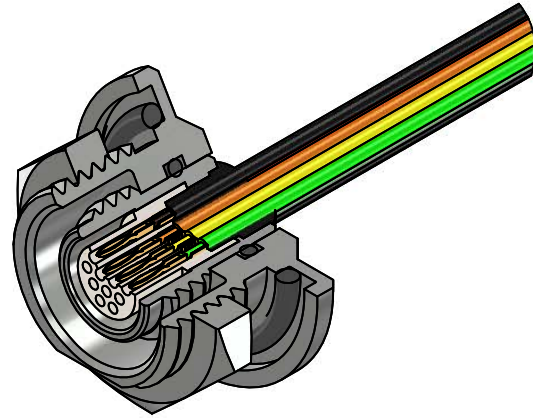


Part #	Contacts	English (IN)		Metric (MM)	
		A	B	A	B
A79280-001	6	0.495	0.025	12.57	0.64
A79281-001	11	0.540		13.72	
A79282-001	16	0.580		14.73	
A79283-001	28	0.615		15.62	
A79484-001	39	0.735	0.030	18.67	0.76



# Metal - Pin - Threaded - Wired - Rear Panel - IP68

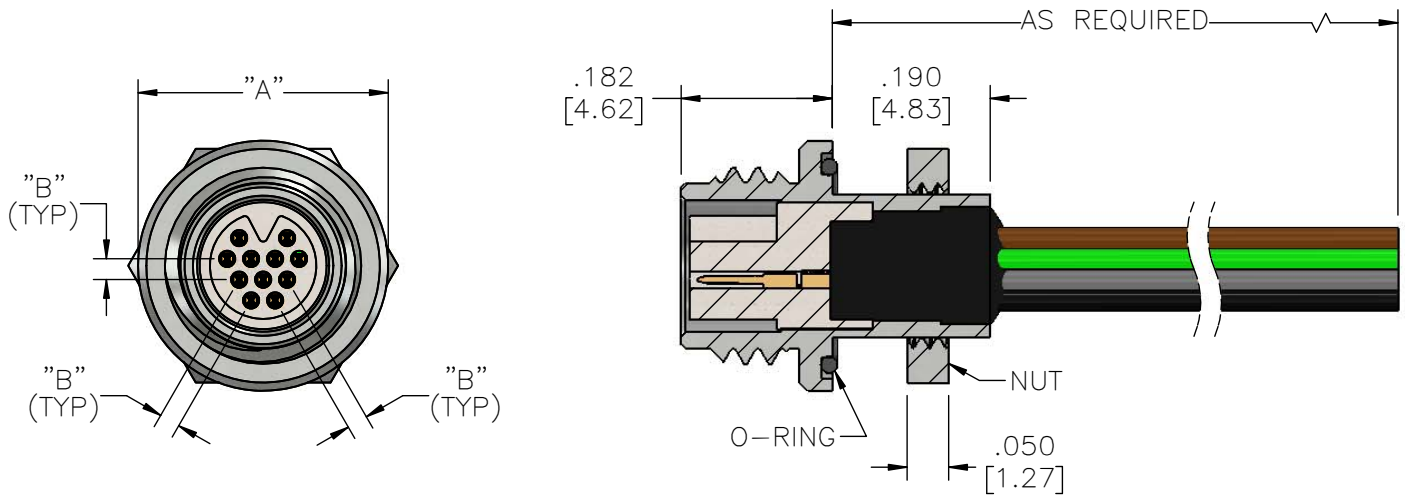
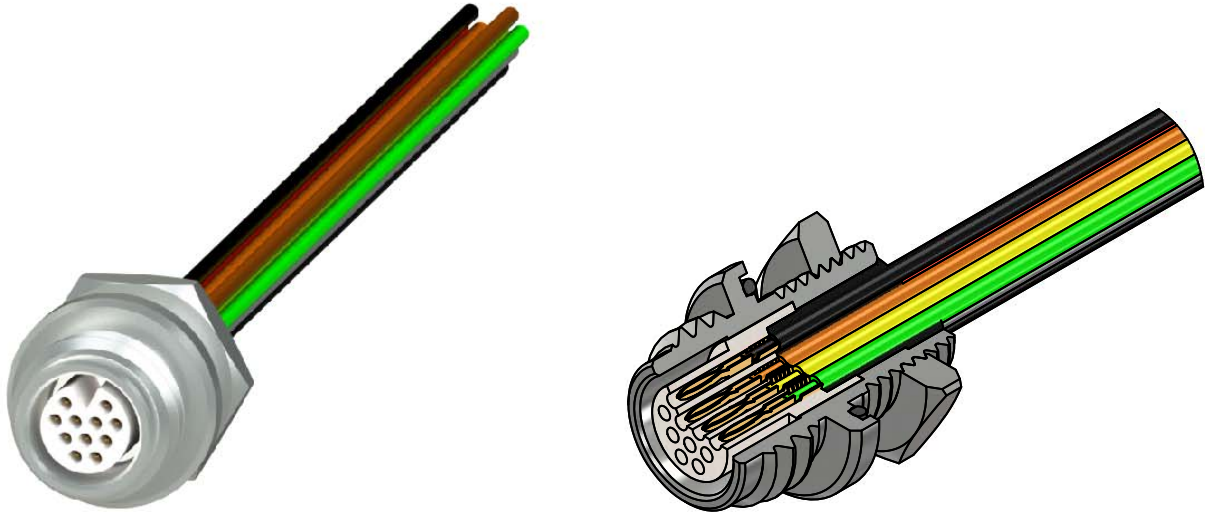
MNCP-WD-RP-IP68



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














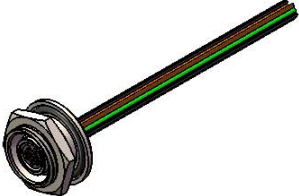
# Metal - Pin - Threaded - Wired - Protruding Panel - IP68

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 THREADED DISCRETE LEADWIRE/CABLE (TYPE WD/WC)

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

**EXAMPLE:**  
MNC-P-16-WD-10.0-N-RP-C-OR