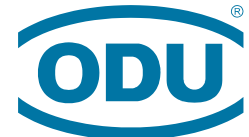


# PRODUCT SPECIFICATION FOR ODU AMC SERIES T



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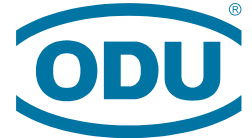
## ENVIRONMENTAL AND TESTING

Description	Requirement	Procedure
Tightness	IPX8 / 1m 120 min  IPX9K	ISO 20653:2013 / MIL-STD-810G: 2008 512.5 ISO 20653:2013
Dust or fine sand	Uncoupling and recoupling torque shall not exceed the values specified by more than 25 percent IP6KX (settling dust)	MIL-STD-202-110  ISO 20653:2013
Temperature cycling	-65°C up to +175°C No blistering, peeling or separation of plating or other damage detrimental to the operation of the connector	EIA-364-32G, method A, test duration A, test condition V
Salt spray	96h salt mist Unmated connectors shall show no lifting of plating or exposure of basis material	EIA-364-26C, test condition A
Altitude low temperature	50.000 feet simulated altitude at -65°C The specimens shall meet the requirements of dielectric withstanding voltage and insulation resistance	EIA-364-105B
Electrolytic erosion	No exposure of base metal due to electrolytic erosion Corrosion deposits shall not be considered as defects	MIL-DTL-38999M, para. 4.5.35
Ice resistance	Uncoupling and recoupling torque shall not exceed the values specified by more than 25 percent	MIL-DTL-38999M, para. 4.5.40

## ELECTRICAL DATA

Description	Requirement	Procedure	
Insulation resistance at ambient temperature	The insulation resistance between any pair of contacts and between any contact and the shell shall be greater than 5.000 MΩ	EIA-364-21E	
Insulation resistance at elevated temperature	The insulation resistance between any pair of contacts and between any contact and the shell shall be greater than 1.000 MΩ at +175°C	EIA-364-21E	
Dielectric withstanding voltage at sea level	Contact Size	DWV	EIA-364-20E
	#16	1.800 V	AC rms 50Hz
	#20	1.000 V	
	#20MD	1.000 V	
	#22D	750 V	
	#22MD	750 V	
#26	500 V		

# PRODUCT SPECIFICATION FOR ODU AMC SERIES T



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Description	Requirement			Procedure
Dielectric withstanding voltage 50.000 feet altitude	Contact Size		DWV	EIA-364-20E
	#16		1.000 V	AC rms 50Hz
	#20		600 V	
	#20MD		600 V	
	#22D		400 V	
	#22MD		400 V	
#26		300 V		
Contact resistance, voltage drop	Wire size	Test current	max. Voltage drop	EIA-364-06C
	16	13 A	49 mV	
	20	7,5 A	55 mV	
	22	5 A	73 mV	
	24	3 A	45 mV	
	26	2 A	52 mV	
Low level contact resistance	Wire size	Contact resistance		EIA-364-23C
	16	5 mOhm		
	20	9 mOhm		
	22	15 mOhm		
	24	20 mOhm		
	26	31 mOhm		
Current carrying capacity	Contact Size		Current	IEC 60512-5-2:2002
	#16		13 A	
	#20		7,5 A	
	#20MD		7,5 A	
	#22D		5 A	
	#22MD		5 A	
Shell-to-shell conductivity; initial <sup>1)</sup>	Voltage drop 2,5 mV			EIA-364-83A
	Magnetic permeability			EIA-364-54A
The relative permeability of the wired, assembled, and fully mated connector assembly is less than 2.0μ				

1) Specified values are tested with ODU AMC Series T Connectors ShellSize12!

# PRODUCT SPECIFICATION FOR ODU AMC SERIES T



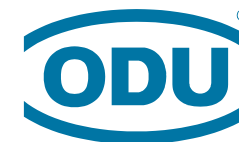
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## MECHANICAL DATA

Description	Requirement	Procedure														
Coupling and uncoupling torque	max. engagement and disengagement (acc. MIL-DTL-38999): ShellSize09 => 0.9Nm    ShellSize12 => 1.8Nm min. disengagement (acc. MIL-DTL-38999): ShellSize09 => 0.2Nm    ShellSize12 => 0.2Nm	EIA-364-114														
Durability	500 cycles No mechanical or electrical defects detrimental to the operation of the connector after the specified number of cycles of mating and unmating	MIL-DTL-38999M, para. 4.5.8														
Insert retention	111N Insert shall retain in their proper location. No evidence of cracking, breaking, separation from the shell or loosening parts	EIA-364-35C														
Electrical engagement	Mated connectors shall provide a minimum of .050 inch (1.27 mm) electrical engagement	MIL-DTL-38999M, para. 4.5.15														
Contact retention	<table border="1"> <thead> <tr> <th>Contact Size</th> <th>min. Newtons</th> </tr> </thead> <tbody> <tr> <td>#16</td> <td>111 N</td> </tr> <tr> <td>#20</td> <td>67 N</td> </tr> <tr> <td>#20MD</td> <td>67 N</td> </tr> <tr> <td>#22D</td> <td>44 N</td> </tr> <tr> <td>#22MD</td> <td>44 N</td> </tr> <tr> <td>#26</td> <td>20 N</td> </tr> </tbody> </table>	Contact Size	min. Newtons	#16	111 N	#20	67 N	#20MD	67 N	#22D	44 N	#22MD	44 N	#26	20 N	EIA-364-29C
Contact Size	min. Newtons															
#16	111 N															
#20	67 N															
#20MD	67 N															
#22D	44 N															
#22MD	44 N															
#26	20 N															
Random vibration <sup>2)</sup>	37,8g´s, longitudinal and perpendicular direction, 8h each No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle	EIA-364-28F, test condition V, Letter I														
Sine Vibration <sup>2)</sup>	30g, 4h in each of three direction for a total of 12h No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle	MIL-STD-202H Method 204, test condition G Amplitude: 0.06 inch Frequency: 10-2000Hz														
Mechanical shock <sup>2)</sup>	300g, 3 ms, half sine, 18 shocks No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle	EIA-364-27C, test condition D														

2) Specified values are tested with ODU AMC Series T Threaded plug!

# PRODUCT SPECIFICATION FOR ODU AMC SERIES T



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## MATERIAL AND SURFACE TREATMENTS

	Material	Standard		Surface	Standard	Flammability
		EU	US			
Housing / Nut	Aluminum AlMgSiSn1Bi	EN-AW 6023		Anthracite Tin-Nickel over nickel		
EMI-locking ring	CuBe2	CW102C (2.1248)	C17300	Gold over nickel		
Crimp sleeve	CuTeP	CW118C (2.1546)	C14500	Nickel		
Grounding ring	CuZn39Pb3	CW614N (2.0401)	C38500	Tin over Nickel		
Insulator	PEEK					UL94 (V0)
Pin contact ODU specific	CuZn38Pb2	CW608N (2.0371)	C37000	1.27 µm Gold over Nickel	MIL-G-45204D	
Pin contact MIL Standard	CuZn35Pb2	CW601 (2.0331)	C34500	1.27 µm Gold over Nickel	ASTM B488, Type II, C	
Socket Contact body	CuZn35Pb2	CW601 (2.0331)	C34500	Gold over Nickel	ASTM B488, Type II	
Socket Contact clip	CuBe2	CW101 (2.1247)	C17200	1.27 µm Gold over Nickel	ASTM B488, Type II, C	
Wave spring	Stainless steel	EN 10270-3 (1.4568)	S17700			
Ratchet ring	PEEK					UL94 (V0)
Grommet	FVMQ (floursilikon)					
Potting	potting compound					UL94 (V0)
O-rings	FVMQ (floursilikon)					
Shrink boots	Polyester-elastomer					acc. to VG95343
Overmoulding material	TPU					UL94 (HB)