

Amphenol

SINE SYSTEMS

ATP Series™ Connectors



Amphenol Sine Systems **ATP Series™ Connectors** are designed as a high-performance, cost-effective, thermoplastic solution to be used within the Marine, Heavy Equipment, Agricultural, Automotive, Alternative Energy fields, as well as other demanding interconnect applications. Available in 2 and 4 pin options, our ATP Series™ Connectors contain superior environmental seals, seal retention capabilities and are designed for use with 10-14 AWG with size 12 contacts handling up to 25 amps. In addition, all of our ATP Series™ connectors have been developed to be completely compatible with all other existing standard products industry-wide.

ATP SERIES™ PART COMPATIBILITY

Amphenol Sine Systems P/N	Deutsch P/N	Part Description
ATP06-2S	DTP06-2S	Plug, 2-Way
ATP06-2S-BLK	DTP06-2S-E004	Plug, 2-Way, Black
ATP06-2S-EC01	DTP06-2S-E003	Plug, 2-Way, w/ End Cap
ATP04-4P-EC01	DTP04-4P-E003	Plug, 4-Way, W End Cap
ATP04-4P-RD01	DTP04-4P-C015	Plug, 4-Way, w/ Reduced Seal
AWP-2S	WP-2S	Wedglock, Plug
AWP-4S	WP-4S	Wedglock, Plug
AT62-12-0144	1062-12-0144	Socket Contact, #12 S&F Gold Plate (Reel)
AT62-12-0166	1062-12-0166	Socket Contact, #12 S&F Nickel (Reel)
AT62-203-12141	0462-203-12141	Socket Contact, #12 Nickel
AT62-210-1231	0462-210-1231	Socket Contact, #12 Gold Plate
ATP04-2P	DTP04-2P	Recept, 2-Way
ATP04-2P-BLK	DTP04-2P-E004	Recept, 2-Way, Black
ATP04-2P-EC01	DTP04-2P-E003	Recept, 2-Way, w/ End Cap
ATP04-4P	DTP04-4P	Recept, 4-Way
ATP04-4P-BLK	DTP04-4P-E004	Recept, 4-Way, Black
ATP06-4S	DTP06-4S	Recept, 4-Way
ATP06-4S-BLK	DTP06-4S-E004	Recept, 4-Way, Black
ATP06-4S-EC01	DTP06-4S-E003	Recept, 4-Way, w/ End Cap
ATP06-4S-RD01	DTP06-4S-C015	Recept, 4-Way, w/ Reduced Seal
ATP06-4S-RD01BK	DTP06-4S-CE02	Recept, 4-Way, w/ Reduced Seal Black
AWP-2P	WP-2P	Wedglock, Receptacle
AWP-4P	WP-4P	Wedglock, Receptacle
AT60-12-0144	1060-12-0144	Pin Contact, #12 S&F Gold Plate (Reel)
AT60-12-0166	1060-12-0166	Pin Contact, #12 S&F Nickel (Reel)
AT60-204-12141	0460-204-12141	Pin Contact, #12 Nickel
AT60-220-1231	0460-220-1231	Pin Contact, #12 Gold Plate

ATP SERIES™ SPECIFICATIONS

Durability	No electrical/mechanical defects after 100 cycles of mating/unmating.
Corrosion Resistance	No evidence of corrosion after 48 hours of salt spray per MIL-STD1344, method 1001.
Contact Current Rating	#12 size contacts rated at 25 amps continuous at +125°C. Current is fully rated without derating curve.
Operating Temperature	-55°C to +125°C
Submersion	A mated connection, properly wired, placed in an oven at +125°C for 1 hour, then placed immediately in a depth of water 1 meter deep for 4 hours without loss of electronic performance.
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (max acceleration 20 g's at Sine sweep of 10-2000Hz)

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vs.

DTP Series

ATP SERIES™ MATERIAL SPECIFICATIONS

Plug/Receptacle	Contacts
Shell: Thermoplastic	Pin: Copper Alloy
Wedge: Thermoplastic	Socket: Copper Alloy
Seals: Silicone Elastomer	Finish: Nickel-plated (optional Gold)

ATP SERIES™ GENERAL SPECIFICATIONS

Dielectric Withstanding Voltage	Insulation Resistance
Current leak less than 2 milliamps at 1500 VAC	1000 megohms minimum 25°C
Current Ratings (Contact current rating at 125°C continuous)	
Size 12 contact: 25 amps	
Corrosion Resistance	
Connectors show no evidence of corrosion after exposure to 48 hours of salt spray per MIL - STD 1344, method 1001.	
Submersion	Fluid Resistance
IP67. Wired and mated connection will withstand immersion under three feet of water without loss of electronic qualities or leakage.	Connectors show no damage when exposed to most fluids used in industrial application.
Vibration	Temperature
Maintains continuity and exhibits no mechanical or physical damage after vibration levels of 20 G's at 10-2000 Hz.	Operative at temperatures from -55°C to +125°C. Continuous at rated current.
Contact Retention Contacts withstand a minimum load of:	
70lbs. for Size 12 contacts.	
Thermal Cycle	Durability
No cracking, chipping or leaking after 20 test cycles from -55°C to +125°C.	No electrical or mechanical defects after 100 cycles of engagement and disengagement.
Physical Shock	Contact Millivolt Drop
No unlocking, unmating or other unsatisfactory results during or after 50 G's in each of three usually perpendicular planes. No electrical discontinuities longer than 1 microsecond. MIL-STD 202. Method 213, Condition "C".	No. 16 contacts - 60 millivolt drop using 16 AWG wire (less drop through wire). Test current 13 amps.

CONTACT RESISTANCE

CONTACT SIZE	WIRE GAUGE AWG(mm ²)	TEST CURRENT (AMPS)	RESISTANCE SOLIDS	RESISTANCE STAMPED & FORMED
#12	12	25	60 µV	100 µV

WIRE SEALING RANGE

CONTACT SIZE	RECOMMENDED WIRE INSULATION O.D.	
	STANDARD (S-Seal)	THIN WALL (RD-Seal)
#12	.134 - .170 (3.40 - 4.32)	.097 - .158 (2.46 - 4.01)

DTP MATERIAL SPECIFICATIONS

Plug/Receptacle	Contacts
Shell: Thermoplastic	Pin: Copper Alloy
Wedge: Thermoplastic	Socket: Copper Alloy
Seals: Silicone Elastomer	Finish: Nickel-plated (optional Gold)

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