



PRODUCT SPECIFICATION

1.0 SCOPE

THIS PRODUCT SPECIFICATION COVERS THE GENERAL REQUIREMENTS FOR THE .070 MULTI CONNECTOR(2P,9P)

2.0 PRODUCT DESCRIPTION]

2.1 PRODUCT NAME AND SERIES NUMBER(S)

PRODUCT NAME	PART NO.	REMARK	
.070 MULTI CONN' MALE HSG-9P	35524-092*(PBT)	* : HSG COLOR 0 (NATURAL) 2 (RED) 3 (YELLOW) 4 (BLUE)	
	35524-*929(PET/PC)		
.070 MULTI CONN' FEMALE HSG-2P	35525-020*(PBT)		
.070 W/W FEMALE HSG-2P	35151-021*(PBT)		
	35151-*219(PET/PC)		
.070 W/W FEMALE HSG-3P	35151-031*(PBT)		
	35151-*319(PET/PC)		
.070 W/W FEMALE HSG-4P	35151-041*(PBT)		
	35151-*419(PET/PC)		
6.2 PITCH W/W HSG T.P.A-2P	35150-029*		
6.2 PITCH W/W HSG T.P.A-3P	35150-039*		
.070 MALE TERMINAL - A TYPE	35745-0*10		*:BARREL SIZE
.070 MALE TERMINAL - B TYPE	35747-0*10		1 : AWG #20 - #22
.070 FEMALE TERMINAL - A TYPE	35746-0*10		2 : AWG #18 - #14
.070 FEMALE TERMINAL - B TYPE	35748-0*10	3 : AWG #20,#18 (TWO WIRE)	

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

SEE THE APPROPRIATE DRAWINGS FOR INFORMATION ON MATERIALS, PLATINGS AND DIMENSIONS.

3.0 RATINGS

VOLTAGE	300V AC(RMS)/DC		
CURRENT	AWG	CURRENT	INSULATION DIA
	# 14	11 A	3.8 MAX.
	# 16	8 A	3.4 MAX.
	# 18	7 A	3.0 MAX.
	# 20	5 A	2.7 MAX.
	# 22	4 A	2.5 MAX.

AMBIENT TEMPERATURE RANGE : -40 C --- +120 C

* CURRENT RATING IS SPECIFIED THAT ALL CIRCUIT USED SAME WIRE.

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4.0 APPLICABLE PRODUCT

PART NUMBER	APPLICABLE TERMINAL		
	MALE TM'L	FEMALE TM'L	CIRCUIT NUMBER
35524-092* -*929	35745-0*10	----	1,2,3
	----	35746-0*10	4,6,7
	35747-0*10	----	5,8,9
35525-020*	35745-0*10	----	1,2
35151-021* -*219	----	35746-0*10	1,2
35151-031* -*319	35745-0*10	----	2
	----	35746-0*10	1
	----	35748-0*10	3
35151-041* -*419	35745-0*10	----	3
	----	35746-0*10	1
	35747-0*10	----	4
	----	35748-0*10	2

* T.P.A

PART NUMBER	APPLICABLE HOUSING	QUANTITY
35150-029*	35151-021*	1 EA
	35151-041*	2 EA
	35524-092*	3 EA
	35525-020*	1 EA
35150-039*	35151-031*	1 EA
	35524-092*	1 EA

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5.0 ELECTRICAL PERFORMANCE

ITEM		CONDITION	REQUIREMENT
5-1	INSULATION RESISTANCE	MATE CONNECTORS WITH A VOLTAGE OF 500 VDC BETWEEN ADJACENT TERMINALS AND BETWEEN TERMINALS AND GROUND.	100 MΩ MIN.
5-2	DIELECTRIC RESISTANCE	MATE CONNECTORS WITH A VOLTAGE OF 1500 VAC FOR ONE MINUTE BETWEEN ADJACENT TERMINALS AND BETWEEN TERMINALS AND GROUND.	NO BREAKDOWN
5-3	CONTACT RESISTANCE (LOW LEVEL)	MATE CONNECTORS WITH A MAXIMUM VOLTAGE OF 20mV AND A CURRENT OF 10mA.	10 mΩ MAX.

6.0 MECHANOCAL PERFORMANCE

ITEM		CONDITION	REQUIREMENT			
6-1	CONNECTOR INSERTION & WITHDRAWAL	INSERT AND WITHDRAW CONNECTORS AT A RATE OF 25 6mm PER MINUTE.	INSERTION FORCE (MAX.)		WITHDRAWAL FORCE (MIN.)	
			2P	3.5Kg.f	2P	0.8Kg.f
			3P	4.2Kg.f	3P	1.2Kg.f
			4P	5.0Kg.f	4P	1.5Kg.f
6-2	TERMINAL RETENTION FORCE	AXIAL PULLOUT FORCE ON THE TERMINAL IN THE HOUSING AT A RATE OF 25 6mm PER MINUTE.	4.0 Kg.f MIN.			
6-3	DURABILITY	MATE CONNECTORS UP TO 30 CYCLES AT A MAXIMUM RATE OF 10 CYCLES PER MINUTE.	CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL)			
6-4	TERMINAL INSERTION FORCE	INSERT THE CRIMPED TERMINAL INTO THE HOUSING	3.0 Kg.f MAX.			

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ITEM		CONDITION	REQUIREMENT	
6-5	VIBRATION	AMPLITUDE : 1.5mm PEAK TO PEAK SWEEP TIME : 10-55-10 HERTZ IN ONE MINUTE DURATION : 2 HOURS IN EACH X-Y-Z AXIS.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL) DISCONTINUITY : 1 Sec. MAX.	
6-6	MECHANICAL SHOCK	50G's WITH THREE SHOCKS IN EACH X-Y-Z AXIS.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL) DISCONTINUITY : 1 Sec. MAX.	
6-7	WIRE PULLOUT FORCE	APPLY AN AXIAL PULLOUT FORCE ON A WIRE AT A RATE OF 25 6mm PER MINUTE.	AWG	PULLOUT FORCE
			#14	15 Kg.f MIN.
			#16	13 Kg.f MIN.
			#18	10 Kg.f MIN.
			#20	6 Kg.f MIN.
			#22	4 Kg.f MIN.

7.0 ENVIRONMENT PERFORMANCE

ITEM		CONDITION		REQUIREMENT
7-1	THERMAL SHOCK	MATE CONNECTORS EXPOSED FOR 5 CYCLES OF :		APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20 mΩ MAX. (CHANGE FROM INITIAL)
		TEMPERATURE	DURATION	
		-55 +0/-3 C	30 MINUTES	
		+25 10 C	5 MINUTES MAX.	
		+120 +3/-0 C	30 MINUTES	
			+25 10 C	5 MINUTES MAX.
7-2	HEAT RESISTANCE	MATE CONNECTORS EXPOSED FOR 96HOURS AT 120 2 C.		APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20 mΩ MAX. (CHANGE FROM INITIAL)

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ITEM		CONDITION	REQUIREMENT
7-3	HUMIDITY STEADY STATE	MATE CONNECTORS AND EXPOSED TO A TEMPERATURE OF 80 ± 2 °C WITH A RELATIVE HUMIDITY OF 90 TO 95% FOR 96 HOURS.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL) DIELECTRIC STRENGTH : NO BREAKDOWN INSULATION RESISTANCE: 100 MΩ MIN.
7-4	TEMPERATURE RISE	MATE CONNECTORS AND MEASURE THE CONTACT TEMPERATURE AT THE RATED CURRENT LOAD.	MAXIMUM TEMPERATURE OF THE TERMINAL OVER AMBIENT OF 30 °C.
7-5	SALT SPRAY	PUT THE CONNECTORS INTO THE CHAMBER AT 35 ± 2 °C AND SPRAY 5% SOLUTION OF NaCl FOR 48 HOURS.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL)
7-6	SO ₂ GAS	24 HOURS EXPOSURE TO 50 PPM SO ₂ GAS AT 40 °C.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL)
7-7	NH ₃ GAS	40 MINUTES EXPOSURE TO NH ₃ GAS EVAPORATING FROM 28% AMMONIA SOLUTION.	APPEARANCE : NO DAMAGE CONTACT RESISTANCE : 20mΩ MAX. (CHANGE FROM INITIAL)

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