

APPLICABLE STANDARD		IEC 61076-3-124		
Rating	Operating Temperature Range	-40°C TO +85°C(95%RH max) (note1)	Storage Temperature Range	-30°C TO +60°C(95%RH max) (note1)
	Voltage	50 V AC / 60 V DC	Current	1.5 A/pin (all pin)
				3 A/pin (pin No.1,2,6,7)

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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CONSTRUCTION

General Examination	Examined visually and with a measuring instrument.	According to drawing.	X	X
Marking	Confirmed visually.	According to drawing.	X	X

ELECTRIC CHARACTERISTICS

Contact Resistance	Measured at 100 mA max (DC or 1000 Hz).	Contact : 30 mΩ max. Shield : 100 mΩ max.	X	—
Insulation Resistance	Measured at 500 V DC.	500 MΩ min.	X	—
Voltage Proof	500 V DC applied for 1 min. Current leakage 2mA max.	No flashover or breakdown.	X	—
Insertion Loss	Measured in the range of 1 to 500 MHz.	0.02 √(f) dB max. (Whenever the formula results in a value less than 0.1 dB, the requirement shall revert to 0.1 dB.)	X	—
Return Loss	Measured in the range of 1 to 500 MHz.	68 – 20log(f) dB min. (Whenever the formula results in a value greater than 30 dB, the requirement shall revert to 30 dB.)	X	—
Near end Crosstalk	Measured in the range of 1 to 500 MHz.	94 – 20log(f) dB min. (1MHz to 250MHz) 46.04 – 30log(f/250) dB min. (250MHz to 500MHz) (Whenever the formula results in a value greater than 75 dB, the requirement shall revert to 75 dB.)	X	—
Far end Crosstalk	Measured in the range of 1 to 500 MHz.	83.1 – 20log(f) dB min. (Whenever the formula results in a value greater than 75 dB, the requirement shall revert to 75 dB.)	X	—
Transverse Conversion Loss	Measured in the range of 1 to 500 MHz.	68 – 20log(f) dB min. (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.)	X	—
Transverse Conversion Transfer Loss	Measured in the range of 1 to 500 MHz.	68 – 20log(f) dB min. (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.)	X	—

MECHANICAL CHARACTERISTICS

Insertion and Withdrawal Forces	A maximum rate of 50 mm/min. Measured with an applicable connector.	Insertion force 25 N max. Withdrawal force 25 N max.	X	—
Mechanical Operation	5000 times insertions and extractions. Mating speed : 10 mm/s max. Rest : 5s, min.(unmated)	1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) No damage, cracks or looseness of parts.	X	—
Vibration	Frequency 10 to 500 Hz 0.35 mm, 50 m/s ² 2hrs in each of 3 mutually perpendicular axis.	1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts.	X	—

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
3 △	1 DIS-E-00001800	JY.IGA	KI.NAGANUMA	20181005

Note Note 1. Non-condensing. Unless otherwise specified, refer to IEC 60512.	APPROVED	RI.TAKAYASU	20170331
	CHECKED	KI.NAGANUMA	20170331
	DESIGNED	SG.CHAMURA	20170331
	DRAWN	SG.CHAMURA	20170331

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-129430-01-00
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HRS	SPECIFICATION SHEET	PART NO.	IX61G-A-10P (01)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL251-0021-0-01	△ 1/3

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Fretting Corrosion	490 m/s ² , 30 times/min at 1000 times.	1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts.	X	—	
Shock	Subject mated specimens to 300 m/s ² half-sine shock pulses of 11 milliseconds duration, 3 shocks in both directions of 3 mutually perpendicular directions (totally 18 shocks)	1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts.	X	—	
Lock Strength	Applying 80 N force for the mating axis direction in state in fitted with applicable connector.	No unlocking, damage, cracks or looseness of parts.	X	—	
Wrenching Strength	Applying 25times of 30 N 1s for 2 axis direction on tip of plug case in state in fitted with applicable connector.	No damage, cracks or looseness of parts.	X	—	
ENVIRONMENTAL CHARACTERISTICS					
Rapid Change of Temperature	Subject mated specimens to 10 cycles between -55°C and 85°C with 30 minutes dwell at temp. extremes and 1 minute transition between temperatures.	1) Voltage proof : 500 V DC applied for 1 min. Current leakage 2mA max. No flashover or breakdown. 2) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 3) Insulation resistance: 500 MΩ min. (at dry) 4) No damage, cracks or looseness of parts.	X	—	
Humidity / Temperature Cycling	Low temperature 25 °C; High temperature 65 °C; Cold sub-cycle - 10 °C; Relative humidity 93 % Duration 10 / each 24 h (IEC 60068-2-38,test Z / AD)	1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts.	X	—	
Damp Heat, Steady State	Subject mated specimens to a relative humidity of 93 % at a temperature of 40°C during 21 days.	1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts.	X	—	
Dry Heat	Subject to +85 ± 2 °C, 21 days. (mating applicable connector)	1) Resistance: contact : 80 mΩ max. shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts.	X	—	
Cold	Subject to -55 ± 3 °C, 10 days. (mating applicable connector)	1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts.	X	—	
Corrosion Salt Mist	Subject to 5 % salt water, 35 ± 2 °C, 48h. (leave under unmated condition.)	No heavy corrosion of contacts.	X	—	
Mixed Flowing Gas Corrosion	Test temperature : +25±1 °C, Relative humidity : 75±3 % H ₂ S : 10±5 ppb, NO ₂ : 200±50 ppb Cl ₂ : 10±5 ppb, SO ₂ : 200±20 ppb Leave the samples for 4 days with mated. The same is performed with unmated samples. (IEC 60512, method 4)	1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) No damage, cracks or looseness of parts.	X	—	
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	HIROSE ELECTRIC CO., LTD.		CODE NO	CL251-0021-0-01	△ 2/3

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SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Solderability	Soldering point immersed in solder bath of $+245 \pm 3$ °C, 3 sec. (using type r flux)	Solder shall cover minimum of 95 % of The surface being immersed.	X	—
Resistance to Soldering Heat	A profile is shown in Fig-1, under 2 cycles.	No deformation or significant looseness of contacts.	X	—

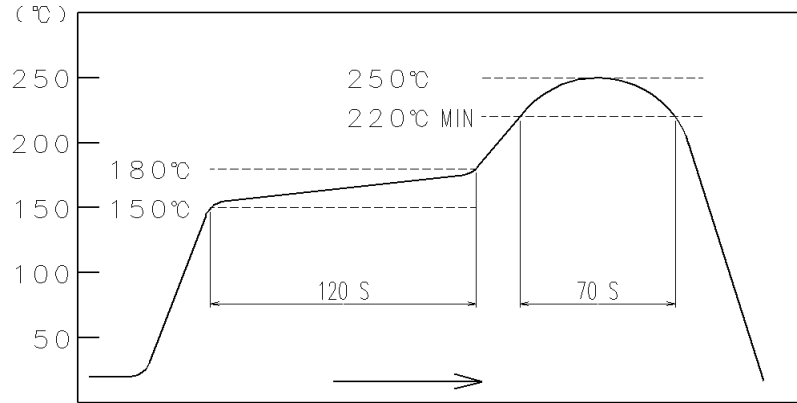


Fig – 1 Resistance to soldering heat
(temperature at top surface of connector)

Recommended profile refers to Fig – 2.
(temperature at SMT leads)

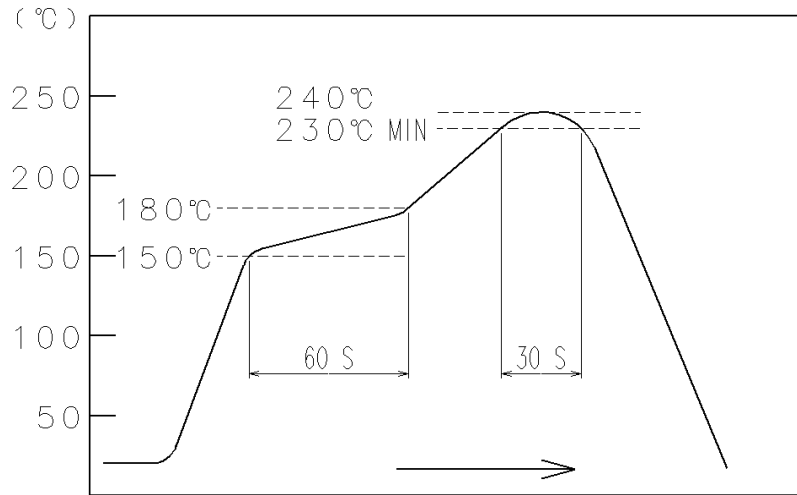


Fig – 2 Recommended reflow profile temperature

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