

APPLICABLE STANDARD				
RATING	Operating temperature range	-55 °C to 85 °C	Storage temperature range	-10 °C TO 50 °C (packed condition)
	Voltage	30V AC / DC	Operating or storage humidity range	Relative humidity 90 %MAX(not dewed)
	Current	0.20 A	Applicable cable	t=0.12±0.02mm, gold plating

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
General examination	Visually and by measuring instrument.	According to drawing.	×	×
Marking	Confirmed visually.	(note 1,2)	×	×
ELECTRICAL CHARACTERISTICS				
Voltage proof	90 V AC for 1 min.	No flashover or breakdown.	×	×
Insulation resistance	100 V DC.	50 MΩ MIN.	×	×
Contact resistance	AC 20 mV MAX, 1 mA.	300 mΩ MAX. including fpc,ffc bulk resistance (L=8mm)	×	×
MECHANICAL CHARACTERISTICS				
Vibration	Frequency 10 to 55 Hz, half amplitude 0.75 mm, for 10 cycles in 3 axial directions.	① No electrical discontinuity of 1 μs. ② Contact resistance: 300 mΩ MAX.	×	—
Shock	981 m/s ² , duration of pulse 6 ms at 3 times in 3 both axial directions.	③ No damage, crack and looseness of parts.	×	—
Mechanical operation	10times insertions and extractions.	① Contact resistance: 300 mΩ MAX. ② No damage, crack and looseness of parts.	×	—
Fpc retention force	Measured by applicable fpc. (thickness of fpc shall be t=0.12mm at initial condition.)	Direction of insertion : 5.6 N MIN (note 3)	×	—
ENVIRONMENTAL CHARACTERISTICS				
Corrosion salt mist	Exposed at 35±2 °C, 5 % salt water spray for 96 h.	① Contact resistance: 300 mΩ MAX. ② No damage, crack and looseness of parts. ③ No evidence of corrosion which affects to operation of connector.	×	—
Rapid change of temperature	Temperature -55→+15TO+35→+85→+15TO+35°C Time 30→ 2 TO 3 → 30 → 2 TO 3 min Under 5 cycles.	① Contact resistance: 300 mΩ MAX. ② Insulation resistance: 50 MΩ MIN. ③ No damage, crack and looseness of parts.	×	—
Damp heat (steady state)	Exposed at 40±2 °C, Relative humidity 90 to 95 %, 96 h.		×	—
Damp heat,cyclic	Exposed at -10 to +65 °C, Relative humidity 90 to 96 %, 10 cycles, total 240 h.	① Contact resistance: 300 mΩ MAX. ② Insulation resistance: 1 MΩ MIN. (at high humidity) ③ Insulation resistance: 50 MΩ MIN. (at dry) ④ No damage, crack and looseness of parts.	×	—
Dry heat	Exposed at 85±2 °C, 96 h.	① Contact resistance: 300 mΩ MAX.	×	—
Cold	Exposed at -55±3°C, 96 h.	② No damage, crack and looseness of parts.	×	—
Sulphur dioxide [JIS C 60068-2-42]	Exposed at 40±2 °C, Relative humidity 80±5% 25±5 ppm for 96 h.	① Contact resistance: 300 mΩ MAX. ② No damage, crack and looseness of parts. ③ No evidence of corrosion which affects to operation of connector.	×	—
Hydrogen sulphide [JIS C 60068-2-43]	Exposed at 40±2 °C, Relative humidity 80±5% , 10 to 15 ppm for 96 h.		×	—
COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				
REMARK		APPROVED	NF. MIYAZAKI	16. 01. 27
		CHECKED	YH. MICHIDA	16. 01. 27
		DESIGNED	SI. MIZUSAWA	16. 01. 27
Unless otherwise specified, refer to IEC 60512.		DRAWN	OTNIEL RINALDO	16. 01. 27
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-336359-99-00	
HRS	SPECIFICATION SHEET	PART NO.	FH53-41S-0. 2SHW (99)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580-3401-7-99	△ 1/2

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Solderability	Soldered at solder temperature, 245±3°C for immersion duration, 3±0.3 sec.	A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed.	X	—
Resistance to Soldering heat	1) Reflow soldering : peak tmp. 250 °C MAX . reflow tmp. over 230 °C within 60 sec. 2) Soldering irons : tmp. 350±10 °C for 5±1 sec .	No deformation of case of excessive looseness of the terminals. (note 4)	X	—

(note1)

This is a top contact point connector with back flip lock system.

(note2)

Do not close the actuator before inserting fpc even after the connector is mounted onto a pcb. Closing the actuator without fpc could make the contact gap smaller, which increases the fpc insertion force.

(note3)

Stabilize the fpc to pcb or something fixed, if pull-up or pull-down force is expected to be applied to the fpc.

(note4)

Blisters which may be generated on the housing do not affect product performance.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC-336359-99-00	
HRS	SPECIFICATION SHEET		PART NO.	FH53-41S-0. 2SHW (99)	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580-3401-7-99	△ 2/2