APPLICABLE STANDARD				
RATING	Operating temperature range	-55 °C to 105 °C	Storage temperature range	−10℃ TO 60℃(Packed condition)
	Voltage	50V AC / DC	Operating or storage humidity range	Relative humidity 90％MAX(Not dewed)
	Current	0.50 A	Applicable cable (FPC/FFC)	t=0.33±0.03mm, Gold plating (Ground plate : Tin plating)

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
General examination	Visually and by measuring instrument.	According to drawing. (***note 1***)	×	×
Marking	Confirmed visually.		×	×
ELECTRICAL CHARACTERISTICS				
Voltage proof	150 V AC for 1 min.	No flashover or breakdown.	×	×
Insulation resistance	100 V DC.	500 MΩ MIN.	×	×
Contact resistance	AC 20 mV MAX , 1 mA .	100 mΩ MAX. Including FPC/FFC bulk resistance (L=8mm(FPC) , 20mm(FFC))	×	×
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: 100 mΩ MAX. ③ No damage, crack and looseness of parts.	×	—
Shock	981 m/s^2 , duration of pulse 6 ms at 3 times in 3 both axial directions.		×	—
Mechanical operation	10 times insertions and extractions.	① Contact resistance: 100 mΩ MAX. ② No damage, crack and looseness of parts.	×	—
FPC/FFC insertion/extraction force	Measured by applicable FPC/FFC. (Thickness of FPC/FFC shall be t=0.33mm at initial condition.)	Insertion force : Direction of insertion (n : Number of contacts) 2+0.35×n N MAX (FPC/FFC) (***note 2***) 2+0.41×n N MAX (Shielded FFC) (***note 2***) Extraction force : Direction of extraction (n : Number of contacts) 7+0.2×n N MAX (FPC/FFC) (***note 2***) 7+0.22×n N MAX (Shielded FFC) (***note 2***)	×	—
⚠ FPC/FFC retention force	Measured by applicable FPC/FFC. (Thickness of FPC/FFC shall be t=0.33mm at initial condition.)	Direction of extraction (n : Number of contacts) 18+0.06×n N MIN (FPC/FFC) (***note3***) 12+0.12×n N MIN (Shielded FFC) (***note3***)	×	—
ENVIRONMENTAL CHARACTERISTICS				
Corrosion salt mist	Exposed at 35±2 ℃, 5 % salt water spray for 96 h.	① Contact resistance: 100 mΩ MAX.	×	—
Rapid change of temperature	Temperature-55→+15TO+35→+105→+15TO+35°C Time 30→ 2 to 3 → 30 → 2 to 3 min Under 5 cycles.	① Contact resistance: 100 mΩ MAX. ② Insulation resistance: 50 MΩ MIN. ③ No damage, crack and looseness of parts.	×	—
⚠ Damp heat (Steady state)	Exposed at 60±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: 100 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	×	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠1	3	DIS-F-00002084	RT. IKEDA	FN. TAMURA	17. 04. 05

REMARK

Unless otherwise specified, refer to IEC 60512.

APPROVED	NF. MIYAZAKI	15. 12. 26
CHECKED	SJ. OKAMURA	15. 12. 26
DESIGNED	SH. YAMAGUCHI	15. 12. 26
DRAWN	SH. YAMAGUCHI	15. 12. 26

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

		DRAWING NO.	ELC-357595-00-00
HRS	SPECIFICATION SHEET	PART NO.	FH63-**S-0. 5SH
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580 ⚠ 1/2

FORM HD0011-2-1

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Dry heat	Exposed at 105±2℃, 96 h.	① Contact resistance: 100 mΩ MAX.	×	—
Cold	Exposed at -55±3℃, 96 h.	② No damage, crack and looseness of parts	×	—
Sulphur dioxide [JIS C 60068-2-42]	Exposed at 40±2 ℃, Relative humidity 80±5% 25±5 ppm for 96 h.	① Contact resistance: 100 mΩ MAX.	×	—
Hydrogen sulphide [JIS C 60068-2-43]	Exposed at 40±2 ℃, Relative humidity 80±5% , 10 to 15 ppm for 96 h.		×	—
Solderability	Soldered at solder temperature, 245±0.3℃ for immersion duration,3±0.3 sec.	A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed.	×	—
Resistance to soldering heat	1) Reflow soldering : Peak TMP. 250 ℃ MAX . Reflow TMP. over 220 ℃ 60 to 90 sec. Number of reflow : 2 times 2) Soldering irons : TMP. 350±10 ℃ for 5±1 sec .	No deformation of case of excessive looseness of the terminals. (***note 4***)	×	—

(*note 1*)

This product features bottom-contact point.

"One Action Lock" completes FPC/FFC lock just by inserting the FPC/FFC.

Do not operate the actuator when inserting the FPC/FFC.

(*note 2*)

Do not insert the FPC/FFC to this product at an angle.

⚠ **(*note 3*)**

Stabilize the FPC/FFC to PCB or something fixed, if pull-up or pull-down force is exepected to be applied to the FPC/FFC.

There's a case witch FPC/FFC retention force doesn't fulfill the value, because FPC/FFC specification affects the result of FPC/FFC retention force.

(*note 4*)

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

(*note 5*)

The occurrence and the length of whisker, and the performance deterioration caused by it are out of the scope of this specification