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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD				
RATING	Operating temperature range	-55 °C to 85 °C	Storage temperature range	−10℃ TO 50℃(Packed condition)
	Voltage	30V AC / DC	Operating or storage humidity range	Relative humidity 90％MAX(Not dewed)
	Current	0.3 A ⚠1	Applicable cable	t=0.2±0.03mm, Gold 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	90 V AC for 1 min.	No flashover or breakdown.	×	—
Insulation resistance	100 V DC.	50 mΩ MAX.	×	—
Contact resistance	AC 20 mV MAX , 1 mA .	100 mΩ MAX. Including FPC 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: 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 insertion force	Measured by applicable FPC. (Thickness of FPC shall be t=0.20mm at initial condition.)	Insertion force : Direction of insertion 2.6+0.14×n N MAX (***note 2***) (n: Number of contacts)	×	—
FPC retention force	Measured by applicable FPC. (Thickness of FPC shall be t=0.20mm at initial condition.)	Retention force : Direction of extraction 5+0.07×n N MIN (***note3***) (n: Number of contacts)	×	—
ENVIRONMENTAL CHARACTERISTICS				
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: 100 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: 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.	×	—
Dry heat	Exposed at 85±2℃, 96 h.	① Contact resistance: 100 mΩ MAX. ② No damage, crack and looseness of parts.	×	—
Cold	Exposed at -55±3℃, 96 h.		×	—
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: 100 mΩ MAX.	×	—
Solderability	Soldered at solder temperature, 245±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 °C MAX . Reflow TMP. over 220 °C 60 to 90 sec. Number of reflow : 2 times 2) Soldering irons : TMP. 350±10 °C for 5±1 sec .	No deformation of case of excessive looseness of the terminals. (***note 4***)	×	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠1	1	DIS-F-00007424	TS. WADA	HS. HIRAHARA	20201217

REMARK
(*note1*) This product features top-contact point. "One Action Lock" completes FPC lock just by inserting the FPC. Do not operate the locking-lever when inserting the FPC.
(*note2*) Do not insert the FPC to this product at an angle.
(*note3*) Stabilize the FPC to PCB or something fixed, if pull-up or pull-down force is expected to be applied to the FPC. There's a case which FPC retention force doesn't fulfill the value, because FPC specification affects the result of FPC retention force.
(*note4*) Blisters which may be generated on the housing do not affect product performance.
Unless otherwise specified, refer to IEC 60512.

APPROVED	HS. HIRAHARA	20201021
CHECKED	HS. HIRAHARA	20201021
DESIGNED	TS. WADA	20201021
DRAWN	NM. YONEYAMA	20201019

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

DRAWING NO. ELC-382927-99-00

HRS

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

PART NO. FH72-**S-0.3SHW(99)

CODE NO. CL580 ⚠ 1/1

FORM HD0011-2-1