


APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	-55°C TO +85°C	STORAGE TEMPERATURE RANGE	-10°C TO +50°C(PACKED CONDITION)	
	VOLTAGE	50V AC/DC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90%MAX(NOT DEWED)	
	CURRENT	0.5A (note1)	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATED	
SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
CONSTRUCTION					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×	
MARKING	CONFIRMED VISUALLY.		×	×	
ELECTRIC CHARACTERISTICS					
VOLTAGE PROOF	150V AC FOR 1 min±5sec.	NO FLASHOVER OR BREAKDOWN.	×	×	
INSULATION RESISTANCE	100±10V DC.	500MΩ MIN.	×	×	
CONTACT RESISTANCE	AC 20mV MAX (1KHz), 1mA.	100mΩ 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: 100mΩ MAX.	×	—	
SHOCK	981 m/s ² , DURATION OF PULSE 6ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
FPC RETENTION FORCE	MEASURED BY APPLICABLE FPC/FFC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.)	DIRECTION OF INSERTION: 25N MIN. (note2)	×	—	
ENVIRONMENTAL CHARACTERISTICS					
CORROSION SALT MIST	EXPOSED AT 35±2°C, CONCENTRATION 5±1wt%,pH VALUE 6.5 TO 7.2 SALT WATER SPRAY FOR 96h.	① CONTACT RESISTANCE: 100mΩ 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→+15 TO +35→+85→+15 TO +35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 50MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95%, 96h.		×	—	
DAMP HEAT,CYCLIC	EXPOSED AT -10 TO +65 °C RELATIVE HUMIDITY 90 TO 96 % 10 CYCLES, TOTAL 240h.	① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 1MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
REMARK			APPROVED	MO.ISHIDA	13.09.02
			CHECKED	YN.TAKASHITA	13.09.02
			DESIGNED	SU.SUNAGA	13.08.30
Unless otherwise specified, refer to JIS C 5402.			DRAWN	SU.SUNAGA	13.08.30
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC4-347196-00
HRS	SPECIFICATION SHEET		PART NO.	FH50-40S-0.5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580-4004-2-00	△ 1/2

SPECIFICATIONS				
ITEM	TEST METHOD	REQUIREMENTS	QT	AT
DRY HEAT	EXPOSED AT $85 \pm 2^{\circ}\text{C}$, 96h.	① CONTACT RESISTANCE: $100\text{m}\Omega$ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
COLD	EXPOSED AT $-55 \pm 3^{\circ}\text{C}$, 96h.		×	—
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT $40 \pm 2^{\circ}\text{C}$, RELATIVE HUMIDITY $80 \pm 5\%$, 25 ± 5 ppm FOR 96h.	① CONTACT RESISTANCE: $100\text{m}\Omega$ 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 $40 \pm 2^{\circ}\text{C}$, RELATIVE HUMIDITY $80 \pm 5\%$, 10 TO 15 ppm FOR 96h.		×	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, $245 \pm 3^{\circ}\text{C}$ FOR IMMERSION DURATION, 3 ± 0.3 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	×	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING: PEAK TMP. 250°C MAX. REFLOW TMP. OVER 230°C WITHIN 60 sec. 2) SOLDERING IRONS: TMP. $350 \pm 10^{\circ}\text{C}$ FOR 5 ± 1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—
<p>(note1)</p> <p>WHEN THE SAME VALUE OF CURRENT ARE APPLIED TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.</p> <p>(note2)</p> <p>FIXING THE FPC/FFC IS RECOMMENDED, IF THE VERTICAL LOAD IS EXPECTED TO BE APPLIED TO THE FPC/FFC.</p> <p>(note3)</p> <p>BLISTERS WHICH MAY BE GENERATED ON THE HOUSING DO NOT AFFECT PRODUCT PERFORMANCE.</p> <p>(note4)</p> <p>INCOMPLETE MATING PREVENTION STRUCTURE OF THIS CONNECTOR DOES NOT COVER ALL THE POSSIBLE CASES OF INCOMPLETE MATING MODE. BE SURE TO NEED THE INSTRUCTION MANUAL FOR YOUR UNDERSTANDING OF THE FEATURES AND ATTENSIONS.</p>				
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