


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	0.2A	APPLICABLE CABLE	t=0.12±0.02mm, GOLD PLATED	
SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
CONSTRUCTION					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×	
MARKING	CONFIRMED VISUALLY.		×	×	
ELECTRICAL CHARACTERISTICS					
VOLTAGE PROOF	90V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	×	
INSULATION RESISTANCE	100V DC.	50MΩ MIN.	×	×	
CONTACT RESISTANCE	AC 20mV MAX (1KHz), 1mA.	200mΩ 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: 200mΩ MAX.	×	—	
SHOCK	981 m/s <sup>2</sup> , DURATION OF PULSE 6ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
MECHANICAL OPERATION	10 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 200mΩ 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: 0.05N × NUMBER OF CONTACTS + 2N MIN. <i>(note1)</i>	×	—	
ENVIRONMENTAL CHARACTERISTICS					
CORROSION SALT MIST	EXPOSED AT 35±2°C, 5% SALT WATER SPRAY FOR 96h.	① CONTACT RESISTANCE: 200mΩ 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 → 2TO3 → 30 → 2TO3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 200mΩ 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: 200mΩ 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	NF.MIYAZAKI	16.03.08
			CHECKED	HS.SAKAMOTO	16.03.08
			DESIGNED	YH.MICHIDA	16.03.07
			DRAWN	RN.IIDA	16.03.07
Unless otherwise specified, refer to IEC 60512.					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-322505-99-00
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH42-**S-0.3SHW(99)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	△ 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
DRY HEAT	EXPOSED AT $85 \pm 2^{\circ}\text{C}$ , 96h.	① CONTACT RESISTANCE: $200\text{m}\Omega$ 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 $80 \pm 5\%$ , $25 \pm 5$ ppm FOR 96h.	① CONTACT RESISTANCE: $200\text{m}\Omega$ 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, $235 \pm 5^{\circ}\text{C}$ FOR IMMERSION DURATION, $2 \pm 0.5$ 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. $250^{\circ}\text{C}$ MAX. REFLOW TMP. OVER $230^{\circ}\text{C}$ WITHIN 60 sec. 2) SOLDERING IRONS: TMP. $350 \pm 10^{\circ}\text{C}$ FOR $5 \pm 1$ sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—	
<p><b>(note1)</b></p> <p>FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED. 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. THIS CONNECTOR HAS CONTACTS ON THE TOP.</p>					
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