

	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE		COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△						△					
△						△					
APPLICABLE STANDARD											
RATING	OPERATING TEMPERATURE RANGE		-40 °C TO 85 °C			STORAGE TEMPERATURE RANGE		-10°C TO 50°C (PACKED CONDITION)			
	VOLTAGE		50 V AC / DC			OPERATING OR STORAGE HUMIDITY RANGE		RELATIVE HUMIDITY 90% MAX (NOT DEWED)			
	CURRENT		※ 0.5 A			APPLICABLE CABLE		t=0.3±0.05 , 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											
CONTACT RESISTANCE		1 mA (DC OR 1000 Hz).				50 mΩ MAX. INCLUDING FPC, FFC BULK RESISTANCE (L=8mm)				×	×
INSULATION RESISTANCE		100 V DC.				500 MΩ MIN.				×	×
VOLTAGE PROOF		150 V AC FOR 1 min.				NO FLASHOVER OR BREAKDOWN.				×	×
MECHANICAL CHARACTERISTICS											
MECHANICAL OPERATION		20 TIMES INSERTIONS AND EXTRACTIONS.				① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.				×	—
VIBRATION		FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 DIRECTIONS.				① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 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 DIRECTIONS.								×	—
FPC RETENSION FORCE		MEASURED BY APPLICABLE FPC. (CONECTOR, FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm)				DIRECTION OF INSERTION : 0.4 × n N MIN. (n : NUMBER OF CONTACTS)				×	—
ENVIRONMENTAL CHARACTERISTICS											
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -40→+15 TO +35→+85→+15 TO +35 °C TIME 30→2 TO 3 →30→2 TO 3 min. UNDER 5 CYCLES.				① CONTACT RESISTANCE: 50 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: 50 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: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.				×	—
COLD		EXPOSED AT -40±3 °C, 96 h.								×	—
EMARKS						DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED	
						D.YAMADA 04.03.25	T.MURAI 04.03.25	R. Takayanagi 04.03.26	M. Ishida 04.03.26		
Unless otherwise specified, refer to JIS C 5402.											
Note QT:Qualification Test AT:Assurance Test ×:Applicable Test											
HRS HIROSE ELECTRIC CO., LTD.						SPECIFICATION SHEET			PART NO. FH12A — * * S — 0.5SH (55)		
CODE NO.(OLD) CL			DRAWING NO. ELC4 — 150722 — 51			CODE NO. CL 586			1 2		



SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CORROSION SALT MIST	EXPOSED AT 35±2 °C, 5 % SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
SURPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5 % , 25±5 PPM FOR 96 h.		×	—
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5 % , 10 TO 15 PPM FOR 96 h.		×	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING (TO BE 2 TIMES MAX.) PEAK TMP. 250 °C MAX. REFLOW TMP. 230 °C MIN. FOR 30 sec. PRE-HEATING. 150 TO 200 °C 90 TO 120 sec. 2) SOLDERING IRONS : 350 ± 10 °C, FOR 5±1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235 ± 5 °C, FOR IMMERSION DURATION, 2±0.5 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.	×	—

※ WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE,
SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

REMARKS	DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED
Unless otherwise specified, refer to JIS C 5402.	D.YAMADA 04.03.25	T.MURAI 04.03.25	R. Takayama 04.03.25	M. Ishida 04.03.26	

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