



APPLICABLE STANDARD						
RATING	Operating temperature range	-55 °C to 85 °C	Storage temperature range	-10 °C to 50 °C (packed condition)		
	Voltage	30 V AC / DC	Operating or storage humidity range	Relative humidity 90%MAX(not dewed)		
	Current	0.20 A	Applicable cable	t=0.12±0.02mm, gold plating		
SPECIFICATIONS						
ITEM		TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION						
General examination		Visually and by measuring instrument.		According to drawing. (note 1,2)	×	×
Marking		Confirmed visually.			×	×
ELECTRICAL CHARACTERISTICS						
Voltage proof		90 V AC for 1 min.		No flashover or breakdown.	×	×
Insulation resistance		100 V DC.		50 MΩ MIN.	×	×
Contact resistance		AC 20 mV MAX (1KHz), 1 mA.		200 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: 200 mΩ MAX.	×	—
Shock		981 m/s ² , duration of pulse 6 ms 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: 200 mΩ 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: 3.55 N MIN (note 3)	×	—
ENVIRONMENTAL CHARACTERISTICS						
Corrosion salt mist		Exposed at 35±2°C, 5% salt water spray for 96 h.		Contact resistance: 200 mΩ MAX.	×	—
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: 200 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: 200 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: 200 mΩ MAX.	×	—
Cold		Exposed at -55±3°C, 96 h.		② No damage, crack and looseness of parts.	×	—
Sulphur dioxide [JIS C 60068-2-42]		Exposed at 40±2°C, Relative humidity 80±5% 25±5 ppm for 96 h.		Contact resistance: 200 mΩ MAX.	×	—
Hydrogen sulphide [JIS C 60068-2-43]		Exposed at 40±2°C, Relative humidity 80±5% , 10 to 15 ppm for 96 h.			×	—
	COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED	DATE
△						
REMARK				APPROVED	NF. MIYAZAKI	17. 04. 17
				CHECKED	HS. SAKAMOTO	17. 04. 17
				DESIGNED	HY. YAMAZAKI	17. 04. 17
				DRAWN	HY. YAMAZAKI	17. 04. 17
Unless otherwise specified, refer to IEC 60512.						
Note QT:Qualification Test AT:Assurance Test X:Applicable Test				DRAWING NO.		ELC-374069-00-00
HRS	SPECIFICATION SHEET			PART NO.	FH64MA-19S-0. 25SHW	
	HIROSE ELECTRIC CO., LTD.			CODE NO.	CL580-4616-0-00	△ 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
Solderability	Soldered at solder temperature, 245±3°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. Number of allowed reflow cycles 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)	×	—	
<div><div>(note1)</div><div>This is a top contact point connector with back flip lock system.</div><div>(note2)</div><div>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.</div><div>(note3)</div><div>Stabilize the FPC to PCB or something fixed, if pull-up or pull-down force is exepected to be applied to the FPC. There is a case which the FPC retention force doesn't fullfill the specification depending on the FPC specification.</div><div>(note4)</div><div>Blisters which may be generated on the housing do not affect product performance.</div></div>					
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	HIROSE ELECTRIC CO., LTD.	CODE NO	CL580-4616-0-00		2/2