

APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-55 °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 (note 1)	APPLICABLE CABLE	t=0.2±0.03mm, GOLD PLATING

### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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#### CONSTRUCTION

GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×
MARKING	CONFIRMED VISUALLY.		×	×

#### ELECTRIC CHARACTERISTICS

VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	×
INSULATION RESISTANCE	100 V DC.	500 MΩ MIN.	×	×
CONTACT RESISTANCE	AC 20 mV MAX ( 1 KHz ), 1 mA .	100 mΩ MAX. INCLUDING FPC, FFC BULK RESISTANCE (L=8mm)	×	×

#### MECHANICAL CHARACTERISTICS

VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, - m/s <sup>2</sup> FOR 10 CYCLES IN 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX.	×	—
SHOCK	981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
FPC RETENSION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)	① DIRECTION OF INSERTION : 0.15N × n MIN. ② VERTICAL DIRECTION OF INSERTION : 0.15N × n MIN. (note 2)	×	—
LOCK OPERATION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)	① CLOSING FORCE : 0.3N × n MAX. (4 ~ 8 POS.) 0.1N × n MAX. (9 ~ 50 POS.) ② OPENING FORCE : 0.05N × n MIN.	×	—

#### ENVIRONMENTAL CHARACTERISTICS

CORROSION SALT MIST	EXPOSED AT 35 °C , 5 % SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 100 mΩ 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 → 2~3 → 30 → 2~3 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 °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.	×	—

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
0				

REMARK	APPROVED	RI. TAKAYASU	06.02.15
	CHECKED	HY. KISHI	06.02.15
	DESIGNED	KK. FURUKAWA	06.02.15
	DRAWN	KK. YAMAMOTO	06.02.15

Unless otherwise specified, refer to JIS C 5402.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC4-155218-03
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<b>HRS</b>	SPECIFICATION SHEET	PART NO.	FH19C-**S-0.5SH (05)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	△ 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
DRY HEAT	EXPOSED AT 85 °C, 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX.	x	—	
COLD	EXPOSED AT -55°C, 96 h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—	
SURPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 25 PPM FOR 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX.	x	—	
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 10 ~ 15 PPM FOR 96 h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	x	—	
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235 °C FOR IMMERSION DURATION, 2 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	x	—	
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING : PEAK TMP. 250 °C MAX . REFLOW TMP. 230 °C MIN FOR 60 sec. 2) SOLDERING IRONS : TMP. 350 ± 5 °C FOR 5 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	x	—	
<p><b>(note 1)</b></p> <p>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.</p> <p><b>(note 2)</b></p> <p>THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.</p>					
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<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH19C-**S-0.5SH (05)	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580	△ 2/2