

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
------	-------------	--------------	----	----

#### CONSTRUCTION

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

#### ELECTRICAL CHARACTERISTICS

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

#### MECHANICAL CHARACTERISTICS

VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, $m/s^2$ FOR 10 CYCLES IN 3 AXIAL DIRECTIONS	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX.	x	—
SHOCK	981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
FPC RETENTION 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)	x	—
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.	x	—

#### 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.	x	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→+15to+35→+85→+15to+35°C TIME 30→ 2to3 → 30→ 2to3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h.		x	—
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.	x	—

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
0				

REMARK	APPROVED	NF. MIYAZAKI	16.03.31
	CHECKED	YH. MICHIDA	16.03.30
	DESIGNED	KN. KOBAYASHI	16.03.30
	DRAWN	RN. IIDA	16.03.24

Unless otherwise specified, refer to IEC 60512.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-155218-99-00
--	-------------	------------------

<b>HRS</b>	SPECIFICATION SHEET	PART NO.	FH19C-**S-0.5SH (99)		
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	0	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	—
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 25 ppm FOR 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 10 TO 15 ppm FOR 96 h.	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. OVER 230°C WITHIN 60 sec. 2) SOLDERING IRONS : TMP. 350 ± 5 °C FOR 5 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	x	—

**(note 1)**

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.

**(note 2)**

THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF  
FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO.

ELC-155218-99-00

**HRS**

SPECIFICATION SHEET

PART NO.

FH19C-\*\*S-0.5SH(99)

HIROSE ELECTRIC CO., LTD.

CODE NO

CL580

0

2/2