

| 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

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|----------------------|--|--|---|---|
| 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 ² , 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

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| 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.

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

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