


In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD		OPERATING TEMPERATURE RANGE		STORAGE TEMPERATURE RANGE	
-40 °C TO 85 °C		-10 °C TO 50 °C (PACKED CONDITION)			
RATING		VOLTAGE		CURRENT	
50 V AC / DC		0.5 A (note)		OPERATING OR STORAGE HUMIDITY RANGE	
				RELATIVE HUMIDITY 90 % MAX.(NOT DEMAID)	
				APPLICABLE CABLE	
				±0.3±0.05mm, GOLD PLATING	
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		AC 20 mV MAX ( 1 KHz ) , 1 mA.		50 mΩ MAX. INCLUDING FPC, FPC 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, — m/s <sup>2</sup> 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 <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.		DIRECTION OF INSERTION: 0.4N x n MIN. (n: NUMBER OF CONTACTS)	
FPC RETENTION FORCE		MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE ±0.30mm AT INITIAL CONDITION.)			
ENVIRONMENTAL CHARACTERISTICS					
RAPID CHANGE OF TEMPERATURE		TEMPERATURE-40→+15to+35→+85→+15to+35°C TIME 30→ 2~3 → 30→ 2~3 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.		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.	
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.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	
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		EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5%, 25±5 PPM FOR 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	
HYDROGEN SULPHIDE		EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5%, 10 ~ 15 PPM FOR 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	
COUNT		DESCRIPTION OF REVISIONS		DESIGNED	
REMARK				CHECKED	
				APPROVED	
				CHECKED	
				DESIGNED	
				DRAWN	
				RT. TAKAYASU	
				HS. SAKAMOTO	
				RT. IKEDA	
				RT. IKEDA	
				DATE	
				09. 04. 02	
				09. 04. 01	
				09. 04. 01	
				09. 04. 01	
Unless otherwise specified, refer to JIS C 5402.					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC4-159698-02	
<b>HRS</b>		<b>SPECIFICATION SHEET</b>		<b>FH28-10S-0.5SH (10)</b>	
HIROSE ELECTRIC CO., LTD.		PART NO.		FH28-10S-0.5SH (10)	
		CODE NO.		CL586-1861-4-10	
				1/2	

## SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING (MAX 2 CYCLES) PEAK TMP. 250 °C MAX. REFLOW TMP. 230 °C MIN FOR 60 sec. PRE-HEAT 150~200°C FOR 90~120 sec. 2) SOLDERING IRONS : TMP. 350±10°C FOR 5±1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE: ±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.	X	—

**(note)**  
 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.

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<b>HRS</b>	SPECIFICATION SHEET	DRAWING NO.	ELC4-159698-02	
	HIROSE ELECTRIC CO., LTD.	PART NO.	FH28-10S-0.5SH (10)	CODE NO
		GL586-1861-4-10		2/2