

Jan.1.2025 Copyright 2025 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD					
RATING	Operating temperature range	-55°C to 85°C	Storage temperature range	-10°C TO 50°C (packed condition)	
	Voltage	30V AC/DC	Operating or storage humidity range	Relative humidity 90%MAX(not dewed)	
	Current	0.20A	Applicable cable	t=0.2±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	90V AC for 1 min.		No flashover or breakdown.	×	×
Insulation resistance	100V DC.		50MΩ MIN.	×	×
Contact resistance	20mV AC MAX, 1mA.		300mΩ 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 1μs. ② Contact resistance: 300mΩ MAX. ③ No damage, crack and loose parts.	×	—
Shock	981 m/s ² , duration of pulse 6 ms at 3 times in 3 both axial directions.			×	—
Mechanical operation	10 times insertions and extractions.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts.	×	—
FPC retention force	Measured by applicable FPC. (thickness of FPC shall be t=0.20mm at initial ondition)		Direction of insertion : 9.54N MIN (note 3,4)	×	—
ENVIRONMENTAL CHARACTERISTICS					
Corrosion salt mist	Exposed at 35±2°C, 5% salt water spray for 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
Rapid change of temperature	Temperature-55 → +15T ₀ +35 → +85 → +15T ₀ +35°C Time 30 → 2T ₀ 3 → 30 → 2T ₀ 3 min Under 5 cycles.		① Contact resistance: 300mΩ MAX. ② Insulation resistance: 50MΩ MIN. ③ No damage, crack and loose parts.	×	—
Damp heat (steady state)	Exposed at 40±2°C, relative humidity 90 to 95%, 96h.			×	—
Damp heat,cyclic	Exposed at -10 to +65°C, relative humidity 90 to 96%, 10 cycles, total 240h.		① Contact resistance: 300mΩ MAX. ② Insulation resistance: 1MΩ MIN. (at high humidity) ③ Insulation resistance: 50MΩ MIN. (at dry) ④ No damage, crack and loose parts.	×	—
Dry heat	Exposed at 85±2°C, 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts.	×	—
Cold	Exposed at -55±3°C, 96h.			×	—
Sulphur dioxide [JIS C 60068-2-42]	Exposed at 40±2°C, relative humidity 80±5%, 25±5ppm for 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
Hydrogen sulphide [JIS C 60068-2-43]	Exposed at 40±2°C, relative humidity 80±5%, 10 to 15ppm for 96h.			×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△					
REMARK			APPROVED	HS. HIRAHARA	20241010
			CHECKED	HS. HIRAHARA	20241010
			DESIGNED	TS. WADA	20241009
Unless otherwise specified, refer to IEC 60512.			DRAWN	TS. WADA	20241009
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-403028-99-00
HRS	SPECIFICATION SHEET		PART NO.	FH58SA-61S-0. 2SHW (99)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL0580-3835-0-99	△ 1/2

Jan.1.2025 Copyright 2025 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Solderability	Soldered at solder temperature $245 \pm 3^{\circ}\text{C}$, 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. 2) Soldering irons: tmp. $350 \pm 10^{\circ}\text{C}$ for 5 ± 1 sec.	No case-deformation and loose contacts. (note 5)	×	—

(note1)

This connector is back flip lock type, and top/bottom both contact points are available.

(note2)

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.

(note3)

If pull-up or pull-down force is expected to be applied to the FPC, stabilize the FPC into PCB or other fixed components.

(note4)

There's a case which FPC retention force doesn't fulfill the value, because FPC specification affects the result of FPC retention force.

(note5)

Blisters which may be generated on the housing do not affect product performance.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC-403028-99-00		
HRS	SPECIFICATION SHEET		PART NO.	FH58SA-61S-0. 2SHW (99)		
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL0580-3835-0-99	△	2/2