

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.	130mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300mΩ MAX)	×	×

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. ② 150 mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300 mΩ 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.	① 150 mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300 mΩ 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 condition)		Direction of insertion: (0.14 × n)+1N MIN (note 3) (n: Number of contacts)	×

ENVIRONMENTAL CHARACTERISTICS

Corrosion salt mist	Exposed at 35±2°C, 5% salt water spray for 96h.	① 150 mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300 mΩ MAX) ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
Rapid change of temperature	Temperature-55 → +15 to +35 → +85 → +15 to +35°C Time 30 → 2 to 3 → 30 → 2 to 3 min Under 5 cycles.		×	—
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.		×	—

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
8	DIS-F-00021680	TS. WADA	HS. HIRAHARA	20241125

REMARK	APPROVED	HS. HIRAHARA	20240202
	CHECKED	HS. HIRAHARA	20240202
	DESIGNED	TS. WADA	20240202
	DRAWN	TS. WADA	20240202

Unless otherwise specified, refer to IEC 60512.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-403031-99-00
--	-------------	------------------

HRS	SPECIFICATION SHEET	PART NO.	FH58S-**S-0. 2SHW (99)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	1/2

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Dry heat	Exposed at 85±2°C, 96h.	① 150 mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300 mΩ 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.	① 150 mΩ MAX.: Connector only (The conductor resistance including the FPC pattern for 8mm is 300 mΩ MAX) ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
Hydrogen sulfide [JIS C 60068-2-43]	Exposed at 40±2°C, relative humidity 80±5%, 10 to 15ppm for 96h.		×	—
Solderability	Soldered at solder temperature 245±3°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±10°C for 5±1 sec.	No case-deformation and loose contacts. (note 4)	×	—

(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.

There's a case which FPC retention force doesn't fulfill the value,

because FPC specification affects the results of FPC retention force.

(note4)

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-403031-99-00		
HRS	SPECIFICATION SHEET		PART NO.	FH58S-**S-0. 2SHW (99)	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580	2/2