

May.1.2023 Copyright 2023 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 <sup>(1)</sup>	Storage Temperature Range	-10 °C to 60 °C <sup>(2)</sup>	
	Voltage	50 V AC	Storage Humidity Range	Relative humidity 85% max (Not dewed)	
	Current	0.5 A	Operating Humidity Range		
SPECIFICATIONS					
ITEM	TEST METHOD		REQUIREMENTS	QT	AT
<b>CONSTRUCTION</b>					
General Examination	Visually and by measuring instrument.		According to drawing.	x	x
Marking	Confirmed visually.			x	x
<b>ELECTRIC CHARACTERISTICS</b>					
Contact Resistance	100 mA(DC or 1000Hz)		70 mΩ MAX.	x	—
Insulation Resistance	100 V DC.		100 MΩ MIN.	x	—
Voltage Proof	150 V AC for 1 min.		No flashover or breakdown.	x	x
<b>MECHANICAL CHARACTERISTICS</b>					
Insertion And Withdrawal Forces	Measured by applicable connector.		Insertion Force: 28 N MAX. Withdrawal Force: 3.5 N MIN.	x	—
Mechanical Operation	50 times insertions and extractions.		① Contact Resistance: Variation from initial value 20 mΩ or less. ② No damage, crack and looseness of parts.	x	—
Vibration	Frequency 10 to 55 to 10Hz, approx 5min Single Amplitude : 0.75 mm, 10 cycles for 3 axial directions.		① No electrical discontinuity of 1 μs. ② No damage, crack and looseness of parts.	x	—
Shock	490 m/s <sup>2</sup> , duration of pulse 11 ms at 3 times for 3 both axial directions.			x	—
<b>ENVIRONMENTAL CHARACTERISTICS</b>					
Damp Heat (Steady state)	Exposed at 40±2 °C, 90 ~ 95 %, 96 h.		① Contact Resistance: Variation from initial value 20 mΩ or less. ② Insulation Resistance : 100 MΩ MIN. ③ No damage, crack and looseness of parts.	x	—
Rapid Change of Temperature	Temperature -55 → +85 °C Time 30 → 30 min. Under 5 cycles. (Relocation time to chamber:within 2~3 MIN)			x	—
Cold	Exposed at -55°C, 96 h		① Contact Resistance: Variation from initial value 20 mΩ or less. ② No damage, crack and looseness of parts.	x	—
Dry Heat	Exposed at 85°C, 96 h			x	—
Sulfur Dioxide	Exposed at 25±2°C, 75±5%RH, 25 PPM for 96 h. (Test standard : JIS C 60068)		① No defect such as corrosion which impairs the function of connector. ② Contact Resistance: variation from initial value 20 mΩ or less.	x	—
Resistance to Soldering Heat	1)Reflow Soldering : Peak TMP : 260°C MAX Reflow TMP: 220°C MIN for 60sec 2) Soldering Irons : 360°C MAX. for 5 sec.			x	—
Solderability	Soldered at solder temperature 240±3°C for immersion duration, 3 sec.		A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed.	x	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
	△				
REMARKS <sup>(1)</sup> Include temperature rise caused by current-carrying. <sup>(2)</sup> "STORAGE" means a long-term storage state for the unpacked part before assembly to PCB.			APPROVED	HS. OKAWA	14. 05. 30
			CHECKED	KN. SHIBUYA	14. 05. 30
			DESIGNED	TS. 00NO	14. 05. 30
Unless otherwise specified, refer to JIS-C-5402.			DRAWN	TS. 00NO	14. 05. 30
Note	QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-336325-01	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FX20-40P-0. 5SV20 (10)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL570-1007-7-10	△ 1/1