



**THE DATASHEET OF
FX23-20P-0.5SV15**



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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 $\triangle 2$	-55 °C to 105 °C ⁽¹⁾	Storage Temperature Range	-10 °C to 60 °C ⁽²⁾	
	Voltage	Signal Contact : 50 V AC Power Contact : 200 V AC	Storage Humidity Range	Relative humidity 85% max (Not dewed)	
	Current	Signal Contact : 0.5 A Power Contact : 3.0A	Operating Humidity Range		
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
ELECTRIC CHARACTERISTICS					
Contact Resistance	100 mA(DC or 1000Hz)		Signal Contact : 70m Ω MAX. Power Contact : 20m Ω MAX.	x	-
Insulation Resistance	Signal Contact : 100 V DC. Power Contact : 250 V DC		Signal Contact : 100 M Ω MIN. Power Contact : 1000 M Ω MIN.	x	-
Voltage Proof	Signal Contact : 150 V AC for 1 min.		No flashover or breakdown.	x	x
	Power Contact : 600 V AC for 1 min.			x	-
MECHANICAL CHARACTERISTICS					
Insertion and Withdrawal Forces	Measured by applicable connector.		Insertion Force: 9 N MAX. Withdrawal Force: 1 N MIN.	x	-
Mechanical Operation	100 times insertions and extractions.		① Contact Resistance: Signal Contact : 80m Ω MAX. Power Contact : 30m Ω MAX. 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 μ s. ② No damage, crack and looseness of parts.	x	-
	Shock	490 m/s ² , duration of pulse 11 ms at 3 times for 3 both axial directions.		x	-
ENVIRONMENTAL CHARACTERISTICS					
Damp Heat (Steady state)	Exposed at 40 \pm 2 °C, 90 ~ 95 %, 96 h.		① Contact Resistance: Signal Contact : 80m Ω MAX. Power Contact : 30m Ω MAX. ② Insulation Resistance: Signal Contact : 100 M Ω MIN. Power Contact : 1000 M Ω MIN. ③ No damage, crack and looseness of parts.	x	-
Rapid Change of Temperature	Temperature -55 \rightarrow +85 °C Time 30 \rightarrow 30 min. under 5 cycles. (Relocation time to chamber : within 2~3 MIN)			x	-
Cold	Exposed at -55°C, 96 h		① Contact Resistance: Signal Contact : 80m Ω MAX. Power Contact : 30m Ω MAX. ② No damage, crack and looseness of parts.	x	-
Dry Heat $\triangle 2$	Exposed at 105°C, 96 h			x	-
Sulfur Dioxide	Exposed at 25 \pm 2°C, 75 \pm 5%RH, 25 PPM for 96 h. (Test standard: IEC 68)		① No defect such as corrosion which impairs the function of connector. ② Contact Resistance: Signal Contact : 80m Ω MAX. Power Contact : 30m Ω MAX.	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.		No deformation of case of excessive looseness of the terminal.	x	-
Solderability	Soldered at solder temperature 240 \pm 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
$\triangle 2$	2	DIS-F-00002057	TS. 00N0	HT. YAMAGUCHI	17. 02. 01
REMARKS ⁽¹⁾ Include temperature rise caused by current-carrying. ⁽²⁾ "STORAGE" means a long-term storage state for the unused product before assembly to PCB.			APPROVED	HS. OKAWA	14. 09. 02
Unless otherwise specified, refer to IEC 60512.			CHECKED	KN. SHIBUYA	14. 09. 02
			DESIGNED	TS. 00N0	14. 09. 02
			DRAWN	TS. 00N0	14. 09. 02
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.	ELC-353537-00-00	
HRS	SPECIFICATION SHEET		PART NO.	FX23-20P-0. 5SV15	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL573-3001-0-00	$\triangle 2$ 1/1

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