

Applicable standard						
Rating	Operating Temperature Range	-55 to +85°C (Note1)	Storage Temperature Range	-10 °C to +60°C (Note3)		
	Operating Humidity Range	20% to 80% (Note2)	Storage Humidity Range	40% to 70% (Note3)		
	Voltage	50 V AC/DC	Applicable Connector	DF53-20P-0.6C(##)		
	Current	All pin Any of 2 pins as a power	AWG 32 : 0.7A AWG 32 : 1.3A(power), 0.5A(signal)			
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		20mV MAX, 1mA (DC or 1000Hz).		20 mΩ MAX.	X	—
Insulation Resistance		100 V DC.		100 MΩ MIN.	X	—
Voltage Proof		200 V AC for 1 min.		No flashover or breakdown.	X	—
Mechanical Characteristics						
Mechanical Operation		20 times insertion and extraction.		1.Contact resistance: 40 mΩ MAX. 2.No damage, crack or looseness of parts.	X	—
Mating and unmating force		It takes out and inserts with a conformity connector.		1.Mating Force : 25.2N MAX. 2.Unmating Force : 5.6N MIN.	X	—
Vibration		Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.		1.No electrical discontinuity of 1 μ s. 2.No damage, crack or looseness of parts.	X	—
Shock		Acceleration 500 m/s ² duration of pulse 11 ms at 3 times for 3 directions.			X	—
Environmental Characteristics						
Damp Heat (Steady State)		Exposed at 40 ± 2°C , humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)		1.Contact resistance: 40 mΩ MAX. 2.Insulation resistance: 100 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Rapid Change Of Temperature		Temperature -55°C→ +85°C Time 30min→ 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.)		1.Contact resistance: 40 mΩ MAX. 2.Insulation resistance: 100 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Dry Heat		Exposed at 85±2°C, 96h		1.Contact resistance: 40 mΩ MAX. 2.Insulation resistance: 100 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Cold		Exposed at -55±3°C, 96h		1.Contact resistance: 40 mΩ MAX. 2.Insulation resistance: 100 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Remarks Note 1: Include the temperature rising by current. Note 2: No condensing Note 3: Applicable to unused product packaging.						
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
	0					
Unless otherwise specified, refer to IEC 60512.				APPROVED	S.J. OKAMURA	20231228
				CHECKED	SZ. ONO	20231228
				DESIGNED	JN. TONAI	20231227
				DRAWN	JN. TONAI	20231227
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-380630-00-00	
	SPECIFICATION SHEET		PART NO.	DF53-20S-0. 6H		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL0668-1012-0-00  1/2		

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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	
Resistance to soldering heat	《Reflow area》 Number of cycles : 2 cycles MAX 250°C MAX 10 sec MAX 220°C MIN 60 sec MAX 《Preheating area》 150°C to 180°C 90 sec to 120 sec	No deformation of case of excessive looseness of the terminals.	X	—	
Solderability	Soldered at solder temperature, 245°C for insertion duration, 5sec.	Solder shall cover a minimum of 95 % of the surface being immersed.	X	—	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-380630-00-00		
	SPECIFICATION SHEET	PART NO.	DF53-20S-0. 6H		
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