

In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD		TEST METHOD		REQUIREMENTS		QT	AT
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	0.2A	APPLICABLE CABLE	t=0.12±0.02mm, GOLD PLATED			
SPECIFICATIONS							
ITEM	TEST METHOD			REQUIREMENTS			
CONSTRUCTION		VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.			
MARKING		CONFIRMED VISUALLY.					
ELECTRIC CHARACTERISTICS							
VOLTAGE PROOF	90V AC FOR 1 min.			NO FLASHOVER OR BREAKDOWN.		X	X
INSULATION RESISTANCE	100V DC.			50MΩ MIN.		X	X
CONTACT RESISTANCE	AC 20mV MAX (1KHz), 1mA.			200mΩ MAX. INCLUDING FPC BULK RESISTANCE (L=8mm)		X	X
MECHANICAL CHARACTERISTICS							
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm FOR 10 CYCLES IN 3 DIRECTIONS.			① NO ELECTRICAL DISCONTINUITY OF 1μs. ② CONTACT RESISTANCE: 200mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—
SHOCK	981 m/s ² , DURATION OF PULSE 6ms AT 3 TIMES IN 3 DIRECTIONS.			① CONTACT RESISTANCE: 200mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—
MECHANICAL OPERATION	10 TIMES INSERTIONS AND EXTRACTIONS.			DIRECTION OF INSERTION: 0.05N x NUMBER OF CONTACTS+2N MIN. (note 1)		X	—
FPC RETENSION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.12mm AT INITIAL CONDITION.)						
ENVIRONMENTAL CHARACTERISTICS							
CORROSION SALT MIST	EXPOSED AT 35±2°C, 5% SALT WATER SPRAY FOR 96h.			① CONTACT RESISTANCE: 200mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.		X	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→+15 TO +35→+85→+15 TO +35 °C TIME 30 → 2~3 → 30 → 2~3 min UNDER 5 CYCLES.			① CONTACT RESISTANCE: 200mΩ MAX. ② INSULATION RESISTANCE: 50MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95%, 96h.			① CONTACT RESISTANCE: 200mΩ MAX. ② INSULATION RESISTANCE: 1MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—
DAMP HEAT, CYCLIC	EXPOSED AT -10 TO +65 °C RELATIVE HUMIDITY 90 TO 96 % 10 CYCLES, TOTAL 240h.					X	—
COUNT	DESCRIPTION OF REVISIONS		DESIGNED		CHECKED		DATE
REMARK							
UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.				APPROVED		MOJISHIDA	
				CHECKED		NM.NISHIMATSU	
				DESIGNED		HY.YAMAZAKI	
				DRAWN		HY.YAMAZAKI	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test				DRAWING NO.		ELC4-322505-01	
HRS		SPECIFICATION SHEET		PART NO.		FH42-**S-0.3SHW(10)	
		HIROSE ELECTRIC CO., LTD.		CODE NO.			
						1/2	

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
DRY HEAT	EXPOSED AT 85±2°C, 96h.	① CONTACT RESISTANCE: 200mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
COLD	EXPOSED AT -55±3°C, 96h.		X	—
SURPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5 % 25±5 ppm FOR 96h.	① CONTACT RESISTANCE: 200mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	X	—
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5 % 10 TO 15 ppm FOR 96h.		X	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235±5°C FOR IMMERSION DURATION, 2±0.5 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.	X	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING: PEAK TMP. 250°C MAX. REFLOW TMP. 230°C MIN WITHIN 60 sec. 2) SOLDERING IRONS: TMP. 350±10°C FOR 5±1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—

(note1)

FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.
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.
THIS CONNECTOR HAS CONTACTS ON THE TOP.

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HRS	SPECIFICATION SHEET	PART NO.	FH42-**-S-0.3SHW(10)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	△