

APPLICABLE STANDARD		ISO/IEC 11801 CLASS D CATEGORY 5			
RATING	Operating temperature range	-40 to +85 °C (Note 1)	Storage temperature range	-10 to +60 °C (Note 2)	
	Voltage	100 V AC, 100 V DC	Operating humidity range	10 to 90 %	
	Current	4 A / pin (Note 4)	Applicable cable	AWG18 / 0.75 sq	
SPECIFICATIONS					
ITEM		PROCEDURE	REQUIREMENTS	QT	AT
CONSTRUCTION					
General examination		Visually and by measuring instrument.	According to drawing.	X	X
Marking		Confirmed visually.		X	X
ELECTRICAL CHARACTERISTICS					
Contact resistance	100 mA MAX. (DC or 1000 Hz)		1) Contact : 10 mΩ MAX. (Note 3) 2) Shielding : 50 mΩ MAX. (Note 3)	X	-
Insulation resistance	500 V DC.		5000 MΩ MIN.	X	-
Voltage proof	1500 V AC for 1 min. • Distance between two female contacts. • Distance between female contact and the P-Shield plate.		No flashover or breakdown.	X	-
MECHANICAL CHARACTERISTICS					
Contact insertion, release and extraction force	Measured by applicable contact.		Insertion force : 12 N MAX. Extraction force : 0.5 N MIN.	X	-
Engaging and separating forces	Measured by applicable connector.		Engaging force : 40 N MAX. (Typical:16.7N) Separating force : 10 N MIN. (Typical:13.8N)	X	-
Mechanical operation	500 times insertions and extractions.		1) Contact : 25 mΩ MAX. (Note 3) 2) Shielding : 70 mΩ MAX. (Note 3) 3) No damage, crack and looseness of parts.	X	-
Vibration (sinusoidal)	Frequency 10 to 55 Hz single amplitude 0.75 mm, 3 axial directions, 2 h each.		1) No electrical discontinuity of 10 μs. 2) No damage, crack and looseness of parts.	X	-
Vibration (Railway random vibration test)	JIS E 4031 CATEGORY 1 CLASS B Frequency : 5 to 150 Hz Excitation condition RMS : 7.90 m/s ² ASD level : 1.857 (m/s ²) ² /Hz 3 axial directions, 5 h each.		1) No electrical discontinuity of 10 μs. 2) No damage, crack and looseness of parts.	X	-
Shock	Acceleration 490 m/s ² , duration of pulse 11 ms, for 3 times in 3 both axial directions. (half-sine wave)		1) No electrical discontinuity of 10 μs. 2) No damage, crack and looseness of parts.	X	-
Shock (Railway)	JIS E 4031 CATEGORY 1 CLASS B Peak acceleration : 50 m/s ² Nominal time : 30 ms 3 both axial directions, 3 times each.		1) No electrical discontinuity of 10 μs. 2) No damage, crack and looseness of parts.	X	-
ENVIRONMENTAL CHARACTERISTICS					
Rapid change of temperature	Temperature : -40 → 15 to 35 → 125 → 15 to 35 °C Time : 30 → 2 to 3 → 30 → 2 to 3 min. Under 5 cycles.		1) Contact : 25 mΩ MAX. (Note 3) 2) Shielding : 70 mΩ MAX. (Note 3) 3) No damage, crack and looseness of parts.	X	-
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△	0				
REMARK This specification sheet shows the performance with incorporated applicable crimp contacts and compatible connector. Unless otherwise specified, refer to IEC 60512.			APPROVED	RI. TAKAYASU	16. 04. 05
			CHECKED	AH. KODAMA	16. 04. 05
			DESIGNED	TA. TORIHARA	16. 04. 05
			DRAWN	TA. TORIHARA	16. 04. 05
Note QT: Qualification Test AT: Assurance Test X: Applicable Test			DRAWING NO.		ELC-128158-00-00
HRS	SPECIFICATION SHEET		PART NO.	TJ50L-18SCA	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL236-3204-3-00	△ 1/3

ITEM	PROCEDURE	REQUIREMENTS	QT	AT								
ENVIRONMENTAL CHARACTERISTICS												
Dry heat	Exposed at 105 ± 2 °C for 96 h. Combining the applicable connector.	1) Contact : 25 mΩ MAX. (Note 3) 2) Shielding : 70 mΩ MAX. (Note 3) 3) Insulation resistance : 10 MΩ MIN. 4) No damage, crack and looseness of parts.	X	-								
Cold	Exposed at -55 ± 3 °C for 96 h. Combining the applicable connector.	1) Contact : 25 mΩ MAX. (Note 3) 2) Shielding : 70 mΩ MAX. (Note 3) 3) Insulation resistance : 10 MΩ MIN. 4) No damage, crack and looseness of parts.	X	-								
Damp heat, steady state	Exposed at 60 ± 2 °C, 95 ± 3 % RH for 96 h. Combining the applicable connector.	1) Contact : 25 mΩ MAX. (Note 3) 2) Shielding : 70 mΩ MAX. (Note 3) 3) Insulation resistance : 10 MΩ MIN. 4) No damage, crack and looseness of parts.	X	-								
Flowing mixed gas corrosion test	Exposed in H ₂ S 0.1 ± 0.02 ppm, SO ₂ 0.5 ± 0.1 ppm, 25 ± 2 °C, 75 ± 5 % RH, 96 h. Combining the applicable connector.	No excessive corrosion in contact area that would impair the function.	X	-								
Corrosion, salt mist	Exposed in 5 % salt water spray for 48 h. Combining the applicable connector.	No excessive corrosion in contact area that would impair the function.	X	-								
Note 1. 1) The product performance is guaranteed only in the temperature adequate people's activities. 2) The operation temperature includes the temperature rise by current carrying. 3) Specifications for assembled item with applicable housing. 2. Storage temperature range shows storage condition for unused products including packing materials. 3. The cable conductor resistance is not considered. 4. The value varies depending on board design and cable. 5. This specification sheet describes the plug connector consisting of the below listed parts together with the TJ*L series 1 port In-Line Jack or the receptacle connector. Plug Connector <table><tr><th>Part No.</th><th>Code No.</th></tr><tr><td>TJ50L(1)-4S-C(8.4)</td><td>CL236-3227-9-00</td></tr><tr><td>TJ50L-4S-UNIT</td><td>CL236-3203-0-00</td></tr><tr><td>TJ50L-18SCA</td><td>CL236-3204-3-00</td></tr></table>					Part No.	Code No.	TJ50L(1)-4S-C(8.4)	CL236-3227-9-00	TJ50L-4S-UNIT	CL236-3203-0-00	TJ50L-18SCA	CL236-3204-3-00
Part No.	Code No.											
TJ50L(1)-4S-C(8.4)	CL236-3227-9-00											
TJ50L-4S-UNIT	CL236-3203-0-00											
TJ50L-18SCA	CL236-3204-3-00											
Note QT: Qualification Test AT: Assurance Test X: Applicable Test		DRAWING NO.	ELC-128158-00-00									
	SPECIFICATION SHEET	PART NO.	TJ50L-18SCA									
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL236-3204-3-00	 2/3								

CONNECTOR SPECIFICATION SUPPLEMENT

1. RoHS directive
Compliance: Avoidance of the 6 restricted substances declared by the rohs directive.
- 2.Detailed material information
See appendix.
3. Weight
0.37 g (1 pc)
4. Packaging
Refer to packing specification sheet. (ATAP-E3131)
5. Product naming conventions

T J 5 0 L - 1 8 S C A
① ② ① ③ ④ ⑤ ⑥

①Series name	TJ*L
②Mounting method	50: Crimp type
③Applicable cable	22: AWG22 / 0.3 sq 18: AWG18 / 0.75 sq
④Connector classification	P: Receptacle connector (male contact) S: Plug connector (female contact)
⑤Shape classification	C: Crimping contact
⑥Plating classification	A: Gold plating

Note QT: Qualification Test AT: Assurance Test X: Applicable Test			DRAWING NO.		ELC-128158-00-00		
	SPECIFICATION SHEET		PART NO.	TJ50L-18SCA			
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL236-3204-3-00			3/3