

## PRODUCT SPECIFICATION

### 【1. SCOPE】

This specification covers the DRAWER CONNECTOR series.

### 【2. PRODUCT NAME AND PART NUMBER】

Product Name	Part Number
Female Terminal (AWG #18-24)	5556T, TL
Female Terminal (AWG #22-28)	5556T2, T2L
Male Terminal (AWG #18-24)	5558T, TL
Male Terminal (AWG #22-28)	5558T2, T2L
Receptacle Housing	52034-**11
Plug Housing	51013-**11

\*\* : Refer to the drawing.

### 【3. RATINGS AND APPLICABLE WIRES】

Item	Standard	
Rated Voltage (MAX.)	250 V	[ AC (rms) / DC ]
Rated Current (MAX.) and Applicable wires	AWG #18 6A	Insulation O.D.: T, TL : $\phi$ 1.3~3.1 mm T2, T2L: $\phi$ 0.9~1.8 mm
	AWG #20 5A	
	AWG #22 4A	
	AWG #24 3A	
	AWG #26 2A	
	AWG #28 1A	
Ambient Temperature Range	-40°C ~ +105°C*	

\* : Including terminal temperature rise.

**[4. PERFORMANCE]**

4-1. Electrical Performance:

Item		Test Condition	Requirement
4-1-1	Contact Resistance	Mate connectors, measure by dry circuit, 20mV MAX., 10mA. (Based upon JIS C5402 5.4)	20mΩ MAX.
4-1-2	Insulation Resistance	Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon JIS C5402 5.2/MIL-STD-202 Method 302 Cond.B)	1000MΩ MIN.
4-1-3	Dielectric Strength	Mate connectors, apply 1500V AC for 1 minute between adjacent terminal or ground. (Based upon JIS C5402 5.1/MIL-STD-202 Method 301)	No Breakdown
4-1-4	Contact Resistance on Crimped Portion	Crimp the applicable wire on to the terminal, measure by dry circuit, 20mV MAX., 10mA.	5mΩ MAX.

4-2. Mechanical Performance:

Item		Test Condition	Requirement	
4-2-1	Insertion and Withdrawal Force	Insert and withdraw connectors at the speed rate of 25±3mm/minute.	Refer to paragraph 6	
4-2-2	Crimping Pull Out Force	Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25±3mm/minute. (Based upon JIS C5402 6.8)	AWG #18	9.0 Kgf MIN.
			AWG #20	6.0 Kgf MIN.
			AWG #22	4.0 Kgf MIN.
			AWG #24	3.0 Kgf MIN.
			AWG #26	2.0 Kgf MIN.
			AWG #28	1.0 Kgf MIN.
4-2-3	Terminal Insertion Force	Insert the crimped terminal into the housing.	1.5 Kgf MAX.	
4-2-4	Terminal/Housing Retention Force	Apply axial pull out force at the speed rate of 25±3mm/minute on the terminal assembled in the housing.	3.0 Kgf MIN.	

4-3. Environmental Performance and Others:

Item		Test Condition	Requirement	
4-3-1	Repeated Insertion/Withdrawal	When mated up to 100 cycles repeatedly by the rate of 10 cycles per minute.	Contact Resistance	40mΩ MAX.
4-3-2	Temperature Rise	Carrying rated current load. (Based upon UL 498)		30°C MAX.
4-3-3	Vibration	Amplitude: 1.5mm P-P Sweep time: 10-55-10 Hz in 1 minute Duration: 2 hours in each X.Y.Z. axes (Based upon MIL-STD-202 Method 201A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dis-continuity	1 μ sec. MAX.
4-3-4	Shock	50G, 3 strokes in each X.Y.Z. axes. (Based upon JIS C0041/MIL-STD-202 Method 213B Cond.A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dis-continuity	1 μ sec. MAX.
4-3-5	Heat Resistance	105±2°C, 96 hours (Based upon JIS C0021/MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-6	Cold Resistance	-40±3°C, 96 hours (Based upon JIS C0020)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-7	Humidity	Temperature: 60±2 °C Relative Humidity: 90~95% Duration: 96 hours (Based upon JIS C0022/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
			Dielectric Strength	Must meet 4-1-3
			Insulation Resistance	100MΩ MIN.
4-3-8	Temperature Cycling	5 cycles of : a) - 55°C 30 MIN. b) +105°C 30 MIN. (Based upon JIS C0025)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.

Item		Test Condition	Requirement	
4-3-9	Salt Spray	48±4 hours exposure to a salt spray from the 5±1% solution at 35±°C. (Based upon JIS C5028/MIL-STD-202 Method 101D Cond.B)	Appearance	No Damage
			Contact Resistance	40mΩ MAX.
4-3-10	SO <sub>2</sub> Gas	24 hours exposure to 50±5 ppm. SO <sub>2</sub> gas at 40±2°C.	Appearance	No Damage
			Contact Resistance	40mΩ MAX.

(NOTE) Item 4-3 applies after 100 cycles of insertion/withdrawal.

【5. PRODUCT SHAPE, DIMENSIONS AND MATERIALS】

Refer to the drawing.

【6. INSERTION/WITHDRAWAL FORCE】

[Unit:kgf]

CKT SIZE	Insertion (MAX.)			Withdrawal (MIN.)		
	Initial	30th	100th	Initial	30th	100th
10	7.0	6.5	7.5	0.50	0.40	0.55
12	8.4	7.8	9.0	0.60	0.48	0.66
16	11.2	10.4	12.0	0.80	0.64	0.88

【7. OTHER SPECIFICATIONS】

7-1) The mating gap between the plug housing and receptacle housing must be 1mm MAX.

7-2) The distance between each terminal and the wire end must be 4mm MIN.