

Specification
for
General purpose AC Servo
Ultra Long Bending Life Power supply cable

Type SC-PWS5JCBL□M-■-S

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	11 Jul.,2022			<i>N. Ito</i>	<i>S. Kariya</i>	<i>T. Kasahara</i>	<i>D. Fukushima</i>
Send to				Date		Dwg	
				27 Apr.,2016		X903703D50052-F49A	
				Order			

1. SCOPE

This specification covers the requirements for the General purpose AC Servo Ultra Long Bending Life Power supply cable type.

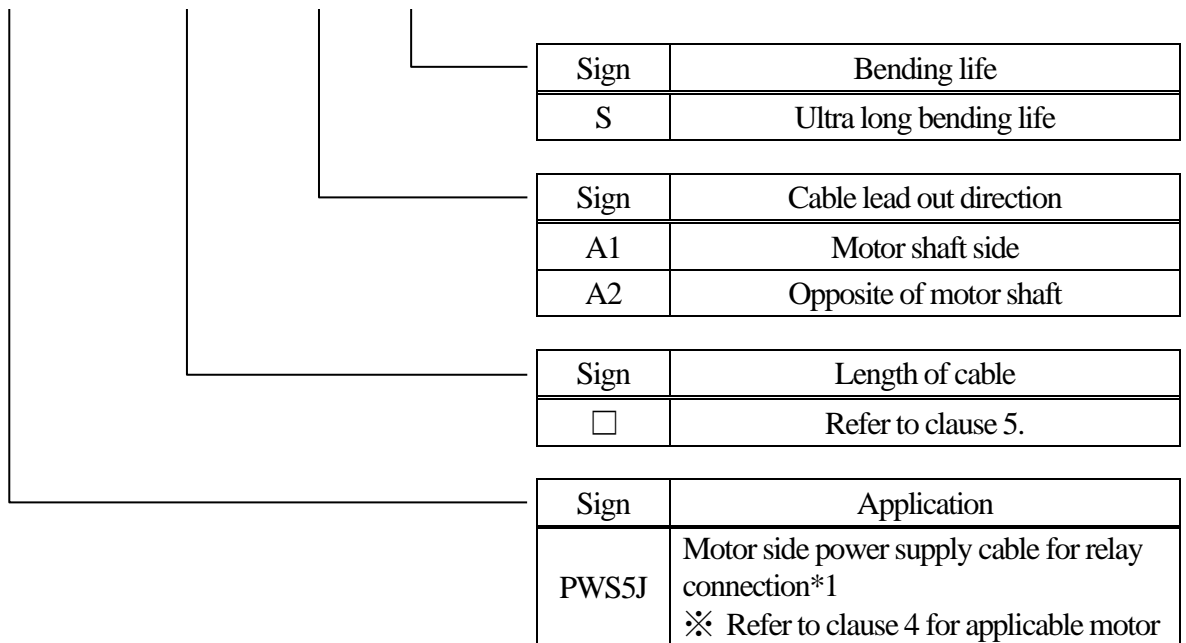
- SC-PWS5JCBL□M-■-S

※ The Products covered in this specification don't include the toxic substances in RoHS (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB).

※ UL's Wiring Harnesses Traceability program provides traceability for this cable.

2. CABLE TYPE

SC - PWS5J CBL □ M - ■ - S



*1 This cable cannot be used alone. Please refer to the specifications below.

	Specification type name	Drawing number	Bending life
Servo amplifier side	SC-PWS5CBL□M-LL	X903703D50052-F23	Standard (For fixed part)
	SC-PWS5CBL□M-LH	X903703D50052-F43	Long bending life

Refer to clause 6 for confirming the combination and cable length.

3. APPLICABLE STANDARDS

Wire part : UL standard (UL758 : AWM)

UL Style No.	Rated	
20921	105°C	300V

4. APPLICABLE SERVO MOTOR

HG-KR, HG-MR series motor
HF-KN, HF-KP, HF-MP series motor

5. LENGTH OF CABLE

1 to 5m Specified by 1m unit

※It is a cable length that can be manufactured.

6. CABLE LENGTH FOR RELAY CONNECTION

Motor type name	Combination		Total cable length
	Amplifier side	Motor side	
HG-KR/MR 053,13,23,43	SC-PWS5CBL□M-LL	SC-PWS5JCBL□M-■-S	5m or less
HF-KN/KP/MP 053,13,23,43	SC-PWS5CBL□M-LH		
HG-KR73	SC-PWS5CBL□M-LL	SC-PWS5JCBL□M-■-S	5m or less
HF-KP73	SC-PWS5CBL□M-LH		
HG-MR73	SC-PWS5CBL□M-LL	SC-PWS5JCBL□M-■-S	5m or less
HF-MP73	SC-PWS5CBL□M-LH		
			15m or less

7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWS5JCBL□M-■-S ×××××××

- ※ □ is a figure from 1 to 5.
- ※ ■ is cable lead out direction from A1, A2.
- ※ ××××××× are the serial number for seven digits.

8. STRUCTURE AND CHARACTERISTICS

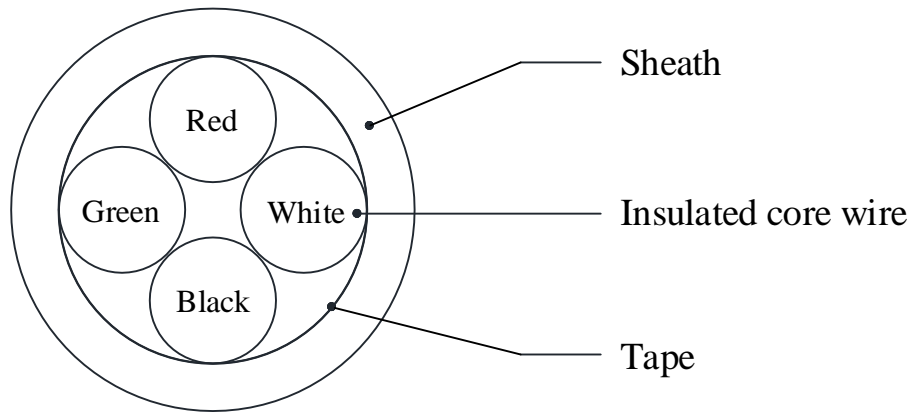
Item		Unit	Specification
Structure		—	AWG21×4C
Conductor	Conductor size	—	AWG21
	Outer diameter	mm	Approx. 1.0
Insulation	Material	—	ETFE
	Outer diameter	mm	Approx. 1.5
Twisted pair	Number of insulated core wire	—	4C
Sheath	Material	—	High elastic PVC
	color	—	Black
Overall diameter		mm	Approx. 6.3
Electrical characteristics	Insulation resistance	MΩ · km	Over 1000
	Withstand voltage	V/for 1min	AC1500
Operating temperature range		°C	-10~+60 (without condensation)
Minimum Bend Radius		mm	6 times the overall diameter
Bending life		—	Over 10 million times ^{*1} (Bend radius: Minimum Bend Radius)
Flame Retardant		—	UL1581 VW-1
Connector	Servo amplifier side	Type	Hirose Electric Co., Ltd. RM15WTPZ-4P (71) or RM15WTPZ-4P (76) ^{*3} (Straight plug) JR13WCCA-6 (72) (Cord clamp)
		IP rating	IP67 ^{*2}
	Servo motor side	Type	Japan Aviation Electronics Industry, Limited KN4FT04SJ1-R (Angle plug)
		IP rating	IP65 ^{*2}

*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment.)

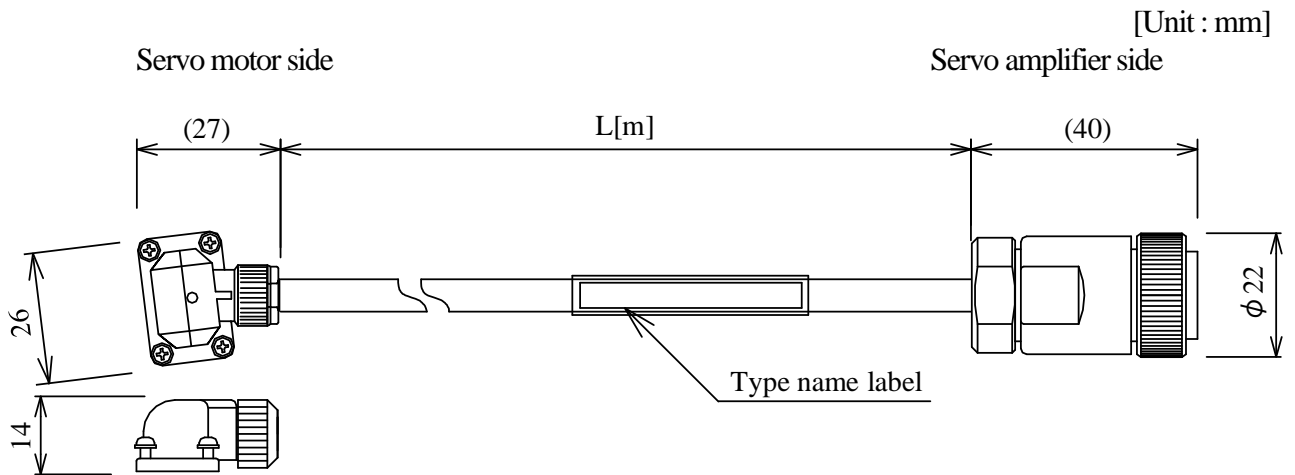
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

*3 From May 2022 production, we will switch from "RM15WTPZ-4P (71)" to "RM15WTPZ-4P (76)". Switching does not affect function and performance.

9. STRUCTURAL DRAWING



10. OUTLINE DRAWING



11. SYSTEM CONFIGURATION DIAGRAM

