

Specification  
for  
General purpose AC Servo  
Power supply cable

Type SC-PWC501C□M-■-SBXH

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision								Drawn	Check	Design	Approved
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Send to								Date		Dwg	
								7 Sep.,2022		X953503D70003-F05	
								Order			

## 1. SCOPE

This specification covers the requirements for the General purpose AC Servo Power supply cable.

- SC-PWC501C□M-■-SBXH

※ The Products covered in this specification don't include the toxic substances in RoHS.

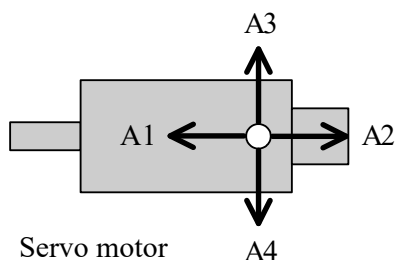
※ UL's Wiring Harnesses Traceability program provides traceability for this cable.

## 2. CABLE TYPE

SC - PWC5 01 C □ M - ■ - SB XH

Sign	Wire thickness / Bending life
XH	Extra thick / Long bending life
Sign	With or without shield
SB	With shield
Sign	Cable lead out direction *1
A1	Motor shaft side
A2	Opposite of motor shaft
A3	Left side of motor shaft
A4	Right side of motor shaft
Sign	Length of cable
□	Refer to clause 4
Sign	Connector specifications
01	Screw tightening plug
Sign	Application
PWC5	Power supply cable

\*1 : Cable lead out direction (View from cable insertion direction)



A1 : Motor shaft side  
 A2 : Opposite of motor shaft  
 A3 : Left side of motor shaft  
 A4 : Right side of motor shaft

(Note) Depending on the situation such as installation environment or combination of cables and connectors, there is a chance not to complete installation. (Even though it's mentioned above) Please make sure the cable lead out direction before your purchase.

### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
2586	105°C	600V

### 4. APPLICABLE SERVO MOTOR / LENGTH OF CABLE

1 to 100m

※ The maximum cable length differs depending on the motor.

Refer to the CABLE LENGTH SELECTION TABLE "R9535021-018028-010"

for more information.

Refer to the CABLE SELECTION TABLE "R9535021-018028-015" for applicable motors.

### 5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC501C□M-■-SBXH    xxxxxxxx

※ □ is a figure from 1 to 100.

※ ■ is cable lead out direction from A1, A2, A3, A4.

※ xxxxxxxx are the serial number for seven digits.

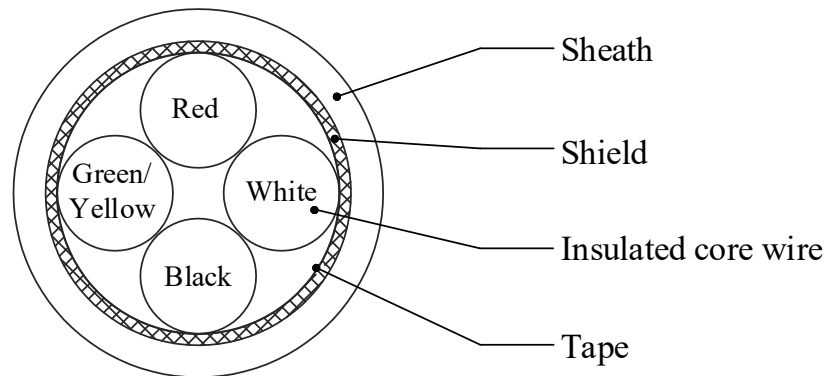
## 6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Wire			
Structure		—	AWG9×4C
Conductor	Conductor size	—	AWG9
	Outer diameter	mm	Approx.4.8
Insulation	Material	—	PVC
	Outer diameter	mm	Approx.7.6
Twisted	Number of insulated core wire	—	4C
Shield	Material	—	Tin coated copper braid
Sheath	Material	—	Flame resisting PVC
	color	—	Black
Overall diameter		mm	Approx. 23.1
Cable weight		kg/km	800
Electrical characteristics	Insulation resistance	MΩ・km	Over 10
	Withstand voltage	V / for 5 min	AC2000
Minimum bend radius		mm	6 times the overall diameter
Bending life		—	Over 1 million times <sup>*1</sup> (by Minimum bend radius)
Flame retardant		—	UL1581 VW-1
Connector			
Amplifier side		—	
Motor side	Type	Japan Aviation Electronics Industry, Ltd. JL04V-6A22-22SE-R (Plug) SANKEI MANUFACTURING CO.LTD, C29KD2422 (KEIGLAND Type C2)	
		IP rating	IP67 <sup>*2</sup>
Cable harness			
Environment	Ambient temperature	℃	0 to 60 (Without freezing)
	Ambient humidity	%RH	5 to 95 (Without condensation)
	Ambience	—	Indoors (no direct sunlight), no corrosive gas, inflammable gas, oil mist, or dust
Electrical characteristics	Insulation resistance	MΩ・km	Over 10
	Withstand voltage	V/for 1 min	AC2000

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

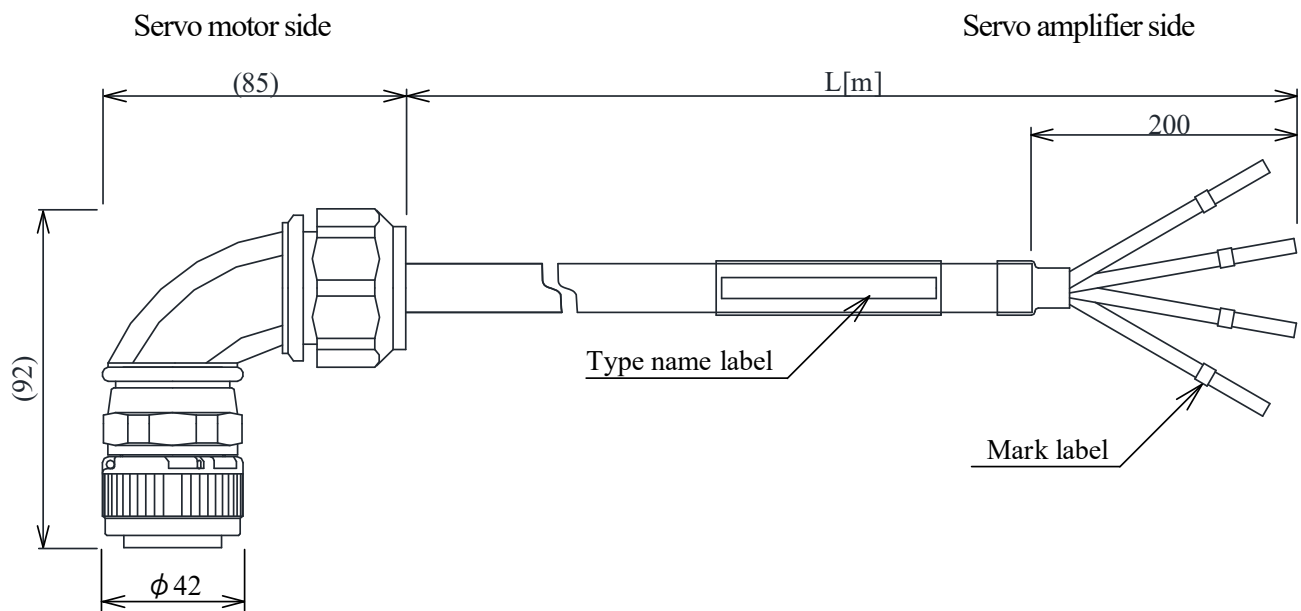
\*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

## 7. STRUCTURAL DRAWING



## 8. OUTLINE DRAWING

[Unit : mm]



Refer to the following table for mark label and insulation color.

Mark label	Insulation color
U	Red
V	White
W	Black
E	Green / Yellow