



## 1. SCOPE

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

- SC-PWC5CBL□M-ML
- SC-PWC5CBL□M-L
- SC-PWC5CBL□M-LL

※ 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 -  PW  C5 CBL  M -  OL

Sign	Wire thickness / Bending life
ML	Thin / Standard (For fixed part)
L	Standard / Standard (For fixed part)
LL	Thick / Standard (For fixed part)
Sign	Length of cable
<input type="checkbox"/>	Refer to clause 5.
Sign	Applicable servo motor
C5	Refer to clause 4.
Sign	Application
PW	Power supply cable for direct connection ※ Refer to clause 4 for applicable cable
	Amplifier side power supply cable for relay connection*1

**\*1 When used for relay connection at the amplifier side**

When using this cable for relaying at the amplifier side, for the items (1) to (3) below refer to the specification sheet on the motor side relay cable (below table).

(1) Combination

(2) Applicable motor

(3) Cable length

Bending life	Cable type name	The number of specification sheet
Standard (For fixed part)	SC-PWC5JCBL□M-L	X903703D50052-F54
	SC-PWC5JCBL□M-■-L	X903703D50052-F56
Long bending life	SC-PWC5JCBL□M-H	X903703D50052-F55
	SC-PWC5JCBL□M-■-H	X903703D50052-F57

### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

Wire thickness	UL Style No.	Rated	
ML(Thin)	2501	105°C	600V
L (Standard)			
LL (Thick)	2586		

### 4. APPLICABLE SERVO MOTOR

The end of type name

① ML

HG-SR121, 201, 202, 2024, 3524 motor

HF-SP121, 201, 202, 2024, 3524 motor

TM-RFM040J10 motor

② L

HG-SR301, 352, 5024, HG-JR353 motor

HF-SP301, 352, 5024, HF-JP353 motor

TM-RFM120J10 motor

③ LL

HG-SR502, HG-JR503 motor

HF-SP502, HF-JP503 motor

### 5. LENGTH OF CABLE

1 to 30m Specified by 1m unit

## 6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC5CBL□M-○L ×××××××

- ※ □ is a figure from 1 to 30.
- ※ ○ is wire thickness from M, none , L.
- ※ ××××××× are the serial number for seven digits.

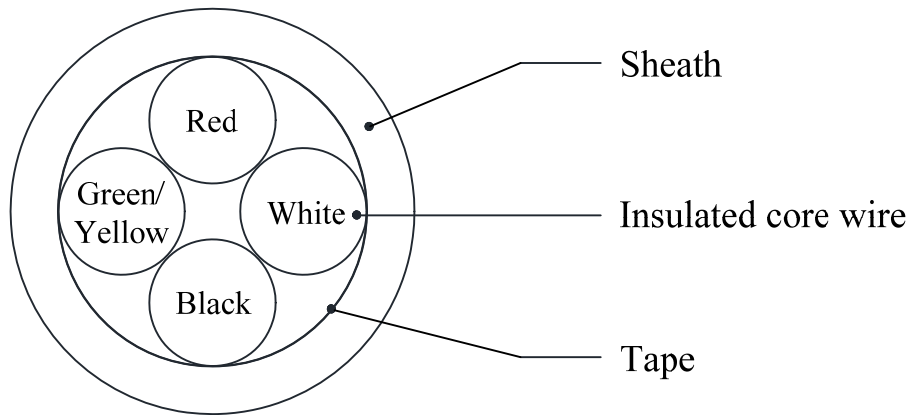
## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification		
			ML	L	LL
Structure		—	AWG14×4C	AWG12×4C	AWG10×4C
Conductor	Conductor size	—	AWG14	AWG12	AWG10
	Outer diameter	mm	Approx. 1.92	Approx.2.48	Approx.3.09
Insulation	Material	—	PVC		
	Outer diameter	mm	Approx. 3.62	Approx. 4.18	Approx. 4.79
Stranding	Number of insulation core wire	—	4C		
Sheath	Material	—	Flame Retardant PVC		
	Color	—	Black		
Overall diameter		mm	Approx. 12.2	Approx. 13.6	Approx. 13.7
Electrical characteristics	Insulation resistance	MΩ · km	Over 10		
	Withstand voltage	V for 1minute	AC2000*2		
Operating temperature range		°C	-10~+60 (without condensation)		
Minimum radius bend		mm	6 times the overall diameter		
Flame retardant		—	UL1581 VW-1		
Connector	Servo amplifier side		—		
	Servo motor side	Type	DDK Ltd. CE05-6A22-22SD-D-BSS (Straight plug) CE3057-12A-1-D (Waterproof cable clamp)		
		IP rating	IP67*1		

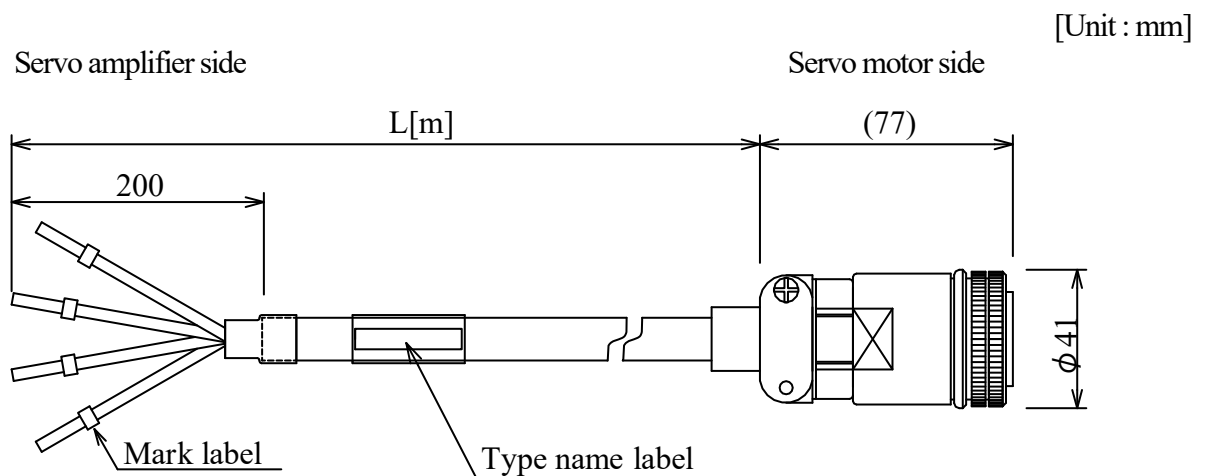
\*1 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

\*2 In addition, the cable material alone is tested for a withstand voltage of 2000V / 5 minutes.

## 8. STRUCTURAL DRAWING



## 9. OUTLINE DRAWING



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

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