

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

Type SC-PWC4JCBL□M-○H

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar.,2017			<i>N. Ishii</i>	<i>S. Kariya</i>	<i>T. Kasahara</i>	<i>D. Subashini</i>
Send to				Date		Dwg	
				27 Apr.,2016		X903703D50052-F45A	
				Order			

## 1. SCOPE

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

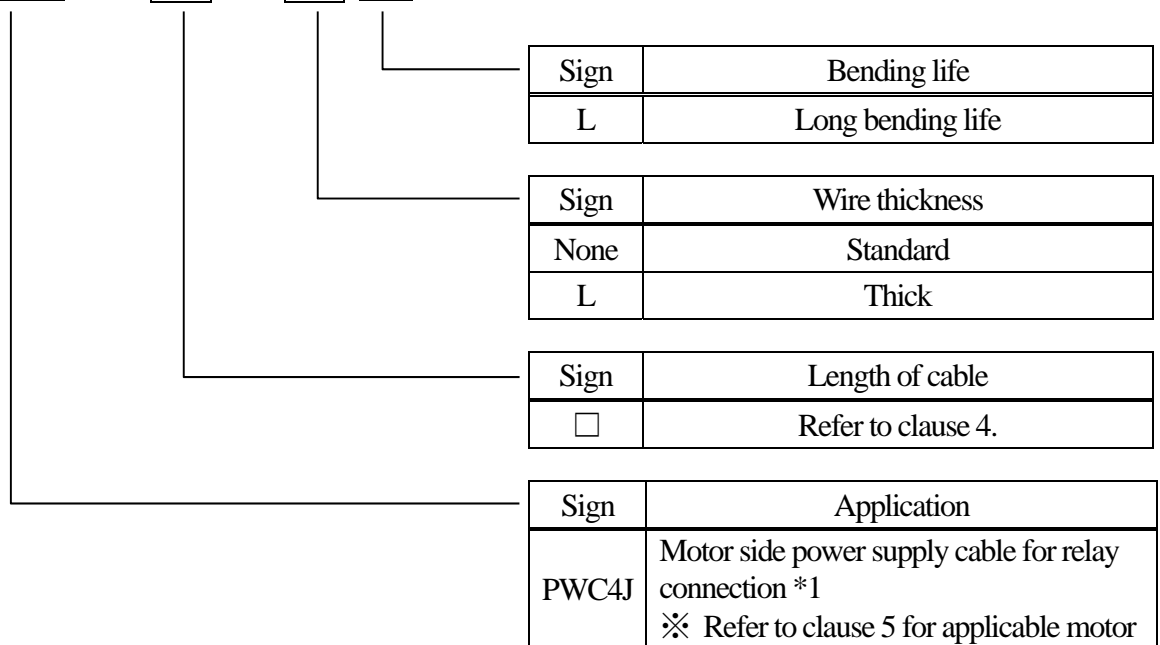
- SC-PWC4JCBL□M-H
- SC-PWC4JCBL□M-LH

※ 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 - PWC4J CBL □ M - ○ H



- \*1 Please use it with amplifier side power supply cable.  
Refer to clause 5 for confirming the combination and cable length.

## 3. APPLICABLE STANDARDS

UL758 AWM STYLE 2586 (wire part)

## 4. LENGTH OF CABLE

1 to 50m Specified by 1m unit

## 5. CABLE LENGTH FOR RELAY CONNECTION

This is the relay connecting cable length when the amplifier side cable length is 10 m or less.

Please inquire separately for combinations other than the table below and relay connection cable length.

【Condition】 Amplifier side relay cable length : 10 m or less

Applicable motor	Amplifier side		Amplifier side
	Amplifier side	Motor side	
HG-SR51,52,524,1024 HG-JR53,534,734,1034 HF-SP51,52,524,1024 HF-JP53,534,734,1034	SC-PWC4CBL□M-ML SC-PWC4CBL□M-MH	SC-PWC4JCBL□M-H	50m or less
HF-SP81	SC-PWC4CBL□M-ML SC-PWC4CBL□M-MH	SC-PWC4JCBL□M-H	45m or less
HG-SR81	SC-PWC4CBL□M-ML SC-PWC4CBL□M-MH	SC-PWC4JCBL□M-H	40m or less
HG-SR102,152 HG-JR73,103 HF-JP73,103	SC-PWC4CBL□M-ML SC-PWC4CBL□M-MH	SC-PWC4JCBL□M-H	35m or less
HF-SP102 (*1)	SC-PWC4CBL□M-ML	SC-PWC4JCBL□M-H	40m or less
	SC-PWC4CBL□M-MH	SC-PWC4JCBL□M-H	35m or less
HF-SP152 (*1)	SC-PWC4CBL□M-L	SC-PWC4JCBL□M-LH	45m or less
	SC-PWC4CBL□M-H	SC-PWC4JCBL□M-LH	40m or less
HF-SP1524	SC-PWC4CBL□M-L SC-PWC4CBL□M-H	SC-PWC4JCBL□M-H	50m or less
HG-SR1524 (*1)	SC-PWC4CBL□M-L	SC-PWC4JCBL□M-H	50m or less
	SC-PWC4CBL□M-H	SC-PWC4JCBL□M-H	45m or less
HG-JR1534,2034 HF-SP1524 HF-JP1534,2034	SC-PWC4CBL□M-L SC-PWC4CBL□M-H	SC-PWC4JCBL□M-LH	50m or less
HG-JR153,203 (*1)	SC-PWC4CBL□M-L	SC-PWC4JCBL□M-LH	30m or less
	SC-PWC4CBL□M-H	SC-PWC4JCBL□M-LH	25m or less
HF-JP153,203	SC-PWC4CBL□M-L SC-PWC4CBL□M-H	SC-PWC4JCBL□M-LH	30m or less
HG-JR3534 HF-JP3534	SC-PWC4CBL□M-L SC-PWC4CBL□M-H	SC-PWC4JCBL□M-LH	40m or less
HG-JR5034 (*1) HF-JP5034	SC-PWC4CBL□M-LL	SC-PWC4JCBL□M-LH	30m or less
	SC-PWC4CBL□M-LH	SC-PWC4JCBL□M-LH	25m or less

\*1 Total cable length varies depending on the bending life of amplifier side relay cable.

## 6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC4JCBL□M-○H ×××××××

※ □ is a figure from 1 to 50.

※ ○ is wire thickness from none , L.

※ ××××××× are the serial number for seven digits.

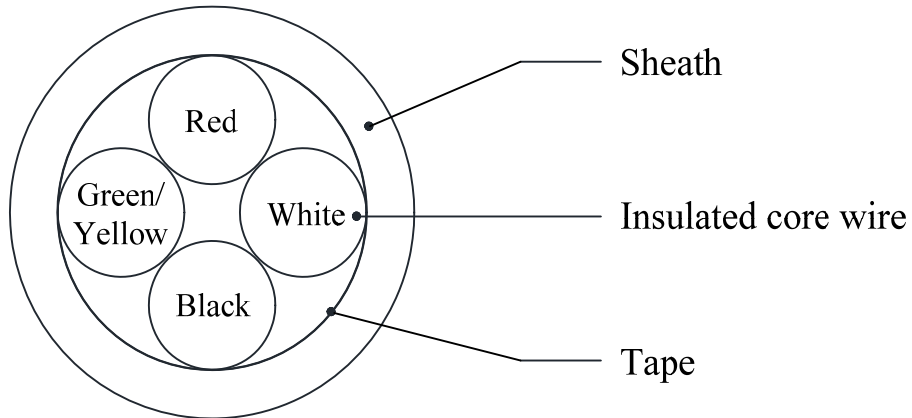
## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification	
			H	LH
Structure		—	AWG15×4C	AWG12×4C
Conductor	Conductor size	—	AWG15	AWG12
	Outer diameter	mm	Approx. 2.00	Approx. 2.77
Insulation	Material	—	ETFE	
	Outer diameter	mm	Approx. 2.60	Approx. 3.57
Twisted pair	Number of insulated core wire		4C	
Sheath	Material	—	Flame resisting PVC	
	Color	—	Black	
Overall diameter		mm	Approx.8.6	Approx. 10.9
Electrical characteristics	Insulation resistance	MΩ · km	Over 100	
	Withstand voltage	V for 1 minute	AC2000	
Operating temperature range		°C	-10~+60 (without condensation)	
Minimum Bend Radius		mm	6 times the overall diameter	
Bending life		—	Over 1 million times* <sup>1</sup> (bend radius: minimum bend radius of each cable)	
Flame Retardant		—	UL1581 VW-1	
Connector	Servo amplifier side	Type	H : DDK Ltd. D/MS3101A18-10P (D263) (Cable receptacle) CE3057-10A-2-D (Waterproof cable clamp) CE02-18BS-S-D (Waterproof back shell)	
		Type	LH : DDK Ltd. D/MS3101A18-10P (D263) (Cable receptacle) CE3057-10A-1-D (Waterproof cable clamp) CE02-18BS-S-D (Waterproof back shell)	
	IP rating	IP67* <sup>2</sup>		
	Servo motor side	Type	H : DDK Ltd. CE05-6A18-10SD-D-BSS (Straight plug) CE3057-10A-2-D (Waterproof cable clamp)	
Type		LH : DDK Ltd. CE05-6A18-10SD-D-BSS (Straight plug) CE3057-10A-1-D (Waterproof cable clamp)		
	IP rating	IP67* <sup>2</sup>		

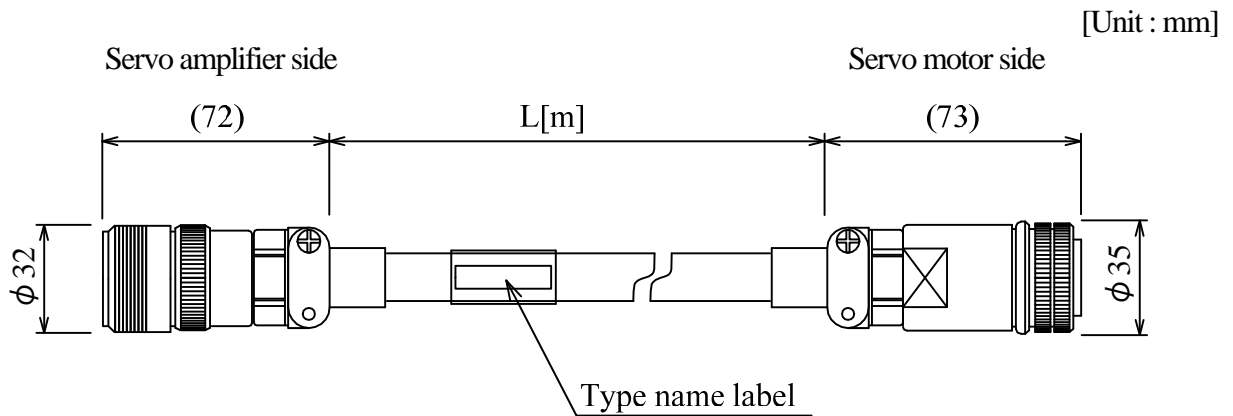
\*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment.)

\*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.

### 8. STRUCTURAL DRAWING



### 9. OUTLINE DRAWING



### 10. SYSTEM CONFIGURATION DIAGRAM

