

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>A. Kariya</i>	<i>T. Kasahara</i>	<i>D. Kuboshima</i>
Send to				Date		Dwg	
				27 Apr.,2016		X903703D50052-F46A	
				Order			

1. SCOPE

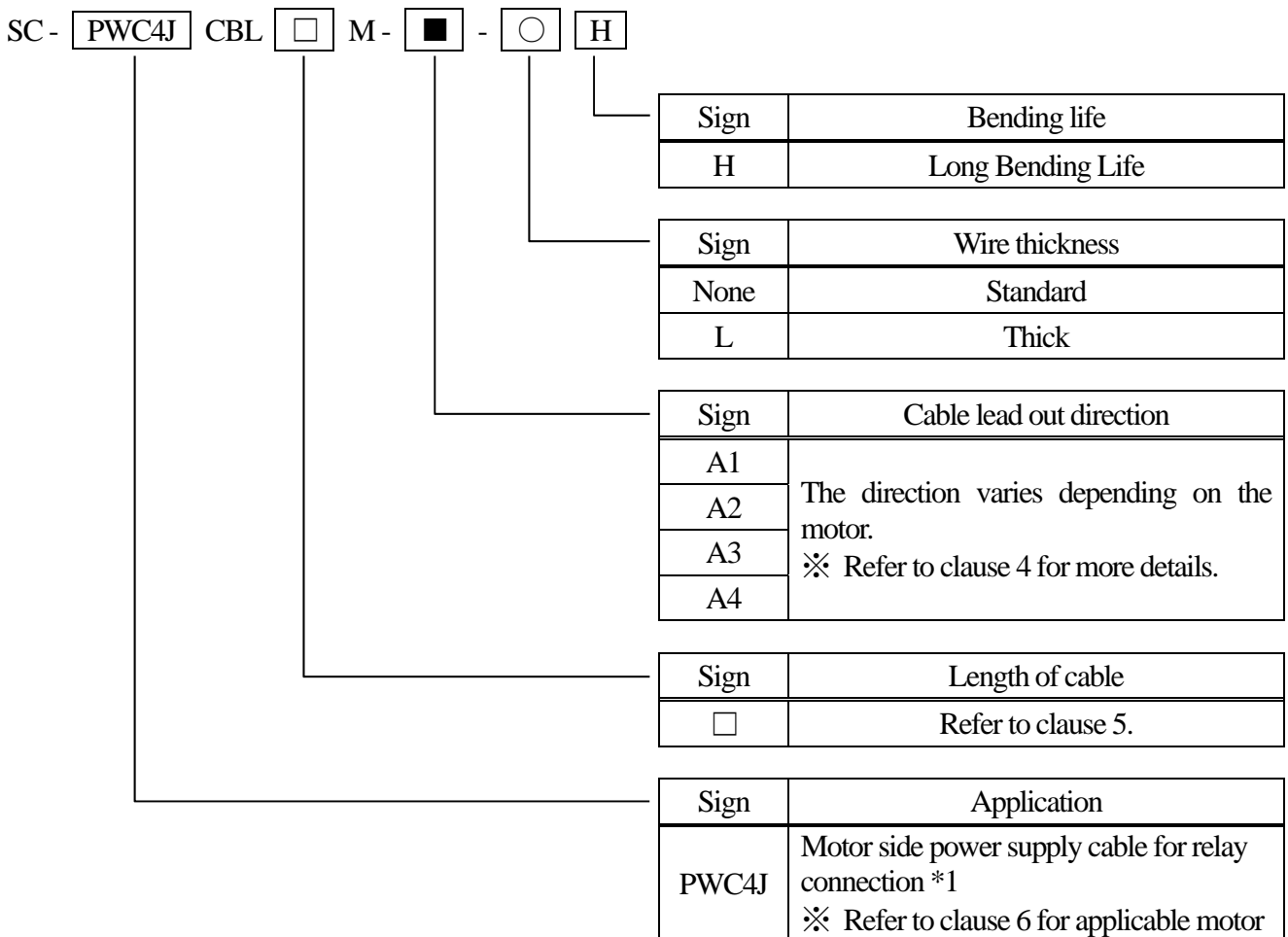
This specification covers the requirements for the General purpose AC Servo Long Bending Life Power supply cable.

- 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

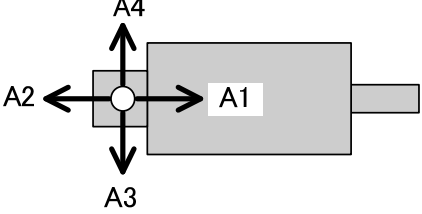
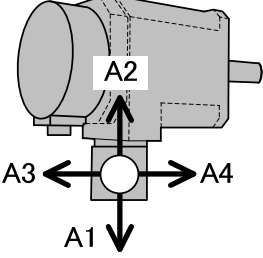


* Please use it with amplifier side power supply cable.
Refer to clause 6 for confirming the combination and cable length.

3. APPLICABLE STANDARDS

UL758 AWM STYLE 2586 (wire part)

4. CABLE LEAD OUT DIRECTION

Applicable servo motor	Cable lead out direction (View from cable insertion direction)
HG-SR51, 52, 81, 102, 152, 524, 1024, 1524 motor HF-SP51, 52, 81, 102, 152, 524, 1024, 1524 motor	
HG-JR53, 73, 103, 153, 203, 534, 734, 1034, 1534, 2034, 3534, 5034 motor HF-JP53, 73, 103, 153, 203, 534, 734, 1034, 1534, 2034, 3534, 5034 motor	

(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.

5. LENGTH OF CABLE

1~50m Specified by 1m unit

6. 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.

7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-PWC4JCBL□M-■-○H ×××××××

- ※ □ is a figure from 1 to 50.
- ※ ■ is cable lead out direction from A1, A2, A3, A4.
- ※ ○ is wire thickness from none, L.
- ※ ××××××× are the serial number for seven digits.

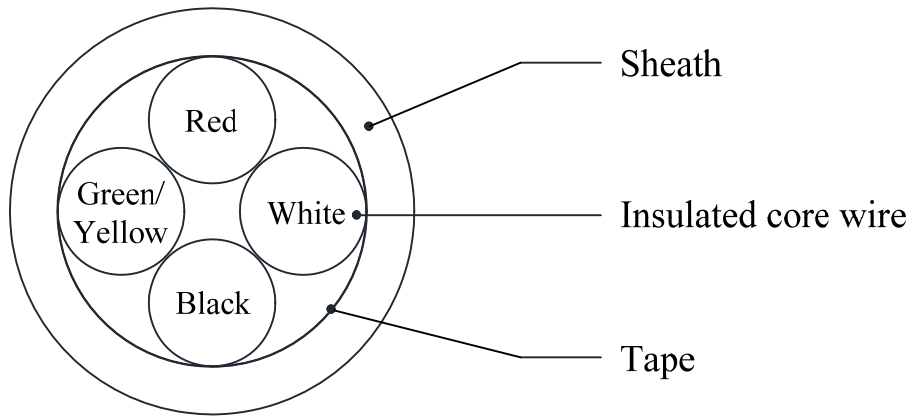
8. STRUCTURE AND CHARACTERISTICS

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* ¹ (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* ²		
	Servo motor side	Type	H : DDK Ltd. CE05-8A18-10SD-D-BAS (Angle plug) CE3057-10A-2-D (Waterproof cable clamp)	
Type		LH : DDK Ltd. CE05-8A18-10SD-D-BAS (Angle plug) CE3057-10A-1-D (Waterproof cable clamp)		
	IP rating	IP67* ²		

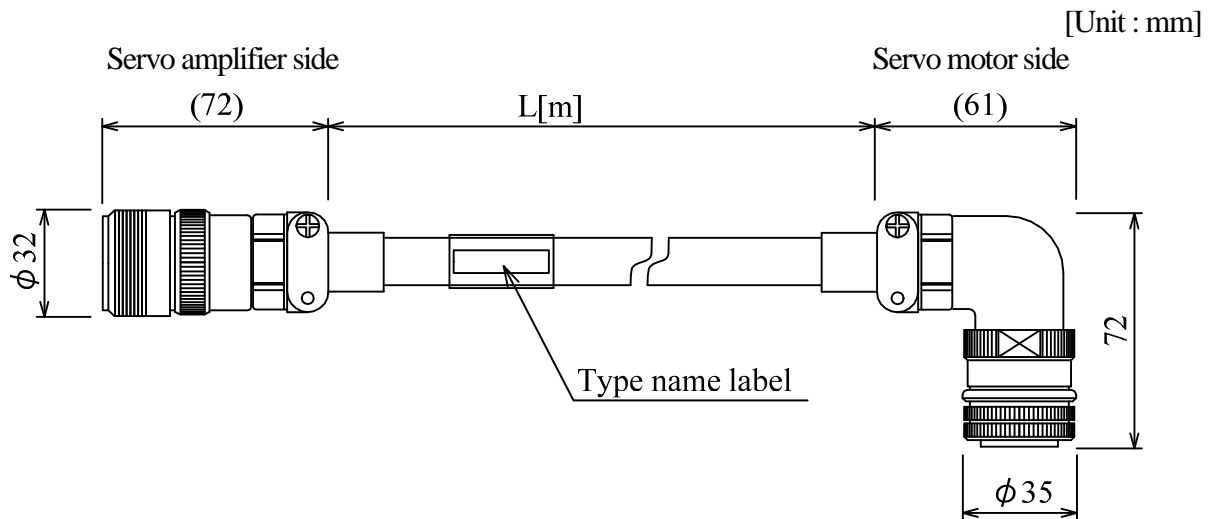
*1 It is a test outcome, and not a guaranteed value. (The performance is different according to customer's environment.)

*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.

9. STRUCTURAL DRAWING



10. OUTLINE DRAWING



11. SYSTEM CONFIGURATION DIAGRAM

- SC-PWC4CBL□M-ML
- SC-PWC4CBL□M-L
- SC-PWC4CBL□M-LL
- SC-PWC4CBL□M-MH
- SC-PWC4CBL□M-H
- SC-PWC4CBL□M-LH

- SC-PWC4JCBL□M-■-H
- SC-PWC4JCBL□M-■-LH

