

Specification  
for  
General purpose AC Servo  
Encoder cable

Type SC-J3JCBL□M-■-L

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	21 Aug.,2019			<i>N. Ito</i>	<i>S. Kaiya</i>	<i>S. Minenaga</i>	<i>T. Kuboshima</i>
Send to				Date		Dwg	
				22 Mar.,2016		X903703D50052-E01A	
				Order			

### 1. SCOPE

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

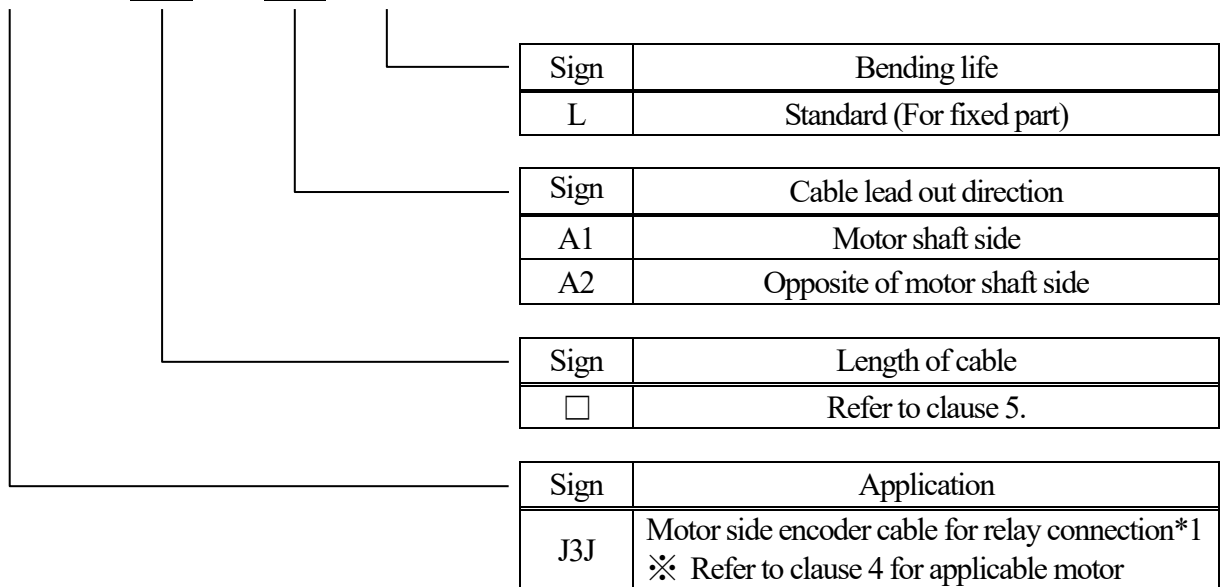
- SC-J3JCBL□M-■-L.

※ This cable doesn'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 - J3J CBL □ M - ■ - L



\*1 Please use it with amplifier side encoder cable.  
Refer to clause 6 for confirming the combination and cable length.

### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
2464	80°C	300V

### 4. APPLICABLE SERVO MOTOR

Refer to MR-J4 APPLICABLE SERVO MOTOR TABLE "R9037020-010022-105".

## 5. LENGTH OF CABLE

0.3m or 1 to 5m Specified by 1m unit

## 6. CABLE LENGTH FOR RELAY CONNECTION

Combination		Total cable length	
Amplifier side	Motor side		
SC-EKCBL□M-L SC-EKCBL□M-H	SC-J3JCBL□M-■-L	1m or less	50m or less
		2~5m	40m or less
SC-EKCBL□M-S	SC-J3JCBL□M-■-L	4m or less	20m or less
SC-EK4CBL□M-H	SC-J3JCBL□M-■-L	1m or less	100m or less
		2~5m	80m or less

## 7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-J3JCBL□M-■-L ×××××××

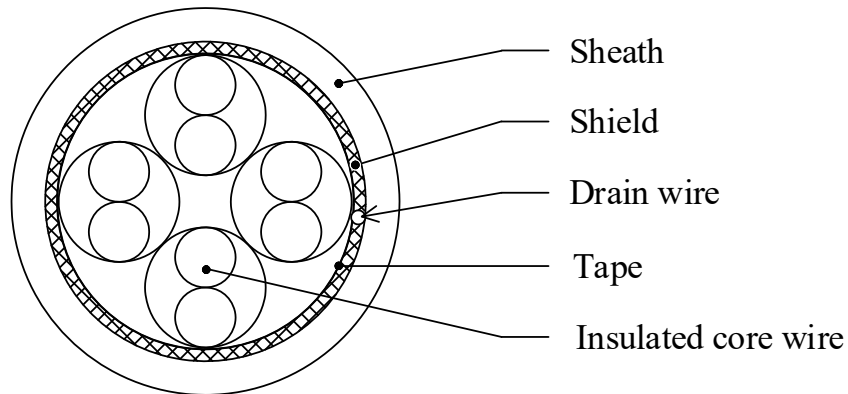
- ※ □ is a figure from 0.3 or 1 to 5.
- ※ ■ is cable lead out direction from A1,A2.
- ※ ××××××× are the serial number for seven digits.

## 8. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Structure		—	AWG24×4P
Conductor	Conductor size	—	AWG24
	Outer diameter	mm	Approx. 0.60
Insulation	Material	—	PVC
	Outer diameter	mm	Approx. 1.10
Twisted pair	Number of insulated core wire	—	2C
	Outer diameter	mm	2.2
Twisted	Number of pairs	—	4P
Drain wire			Tin coated copper
Shield	Material	—	Tin coated copper braid
Sheath	Material	—	Flame resisting PVC
	color	—	Black
Overall diameter		mm	Approx. 7.5
Electrical characteristics	Insulation resistance	MΩ · km	Over 10
	Withstand voltage	V/for 1min	AC500
Operating temperature range		°C	-10~+60 (without condensation)
Minimum Bend Radius		mm	6 times the overall diameter
Flame Retardant		—	UL1581 VW-1
Connector	Servo amplifier side	Type	Tyco electronics Japan GK. 1-172169-9 (Plug) 316454-1 (Cable crump)
		IP rating	IP20 <sup>*1</sup>
	Servo motor side	Type	Tyco electronics Japan GK. 2174053-1 (Micro motor connector)
		IP rating	IP65 <sup>*1</sup>

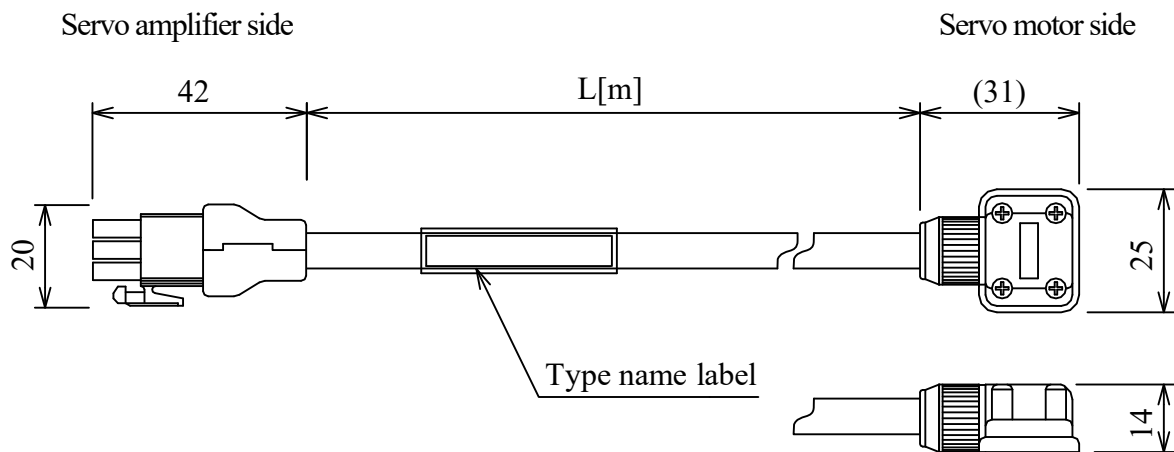
\*1 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

### 9. STRUCTURAL DRAWING



### 10. OUTLINE DRAWING

[Unit : mm]



### 11. SYSTEM CONFIGURATION DIAGRAM

