

Specification  
for  
General purpose AC Servo  
Ultra Long Bending Life Encoder cable

Type SC-J3ENCBL  M- -S

MITSUBISHI ELECTRIC  
SYSTEM & SERVICE CO.,LTD

Note

Revision				Drawn	Check	Design	Approved
A	13 Nov.,2017			<i>n. Ito</i>	<i>S. Kuriyama</i>	<i>S. Kasahara</i>	<i>D. Tsubouchi</i>
B	17 Aug.,2021						
Send to				Date		Dwg	
				22 Mar.,2016		X903703D50052-E48B	
				Order			

### 1. SCOPE

This specification covers the requirements for the General purpose AC Servo Ultra Long Bending Life Encoder cable.

- SC-J3ENCBL□M-■-S

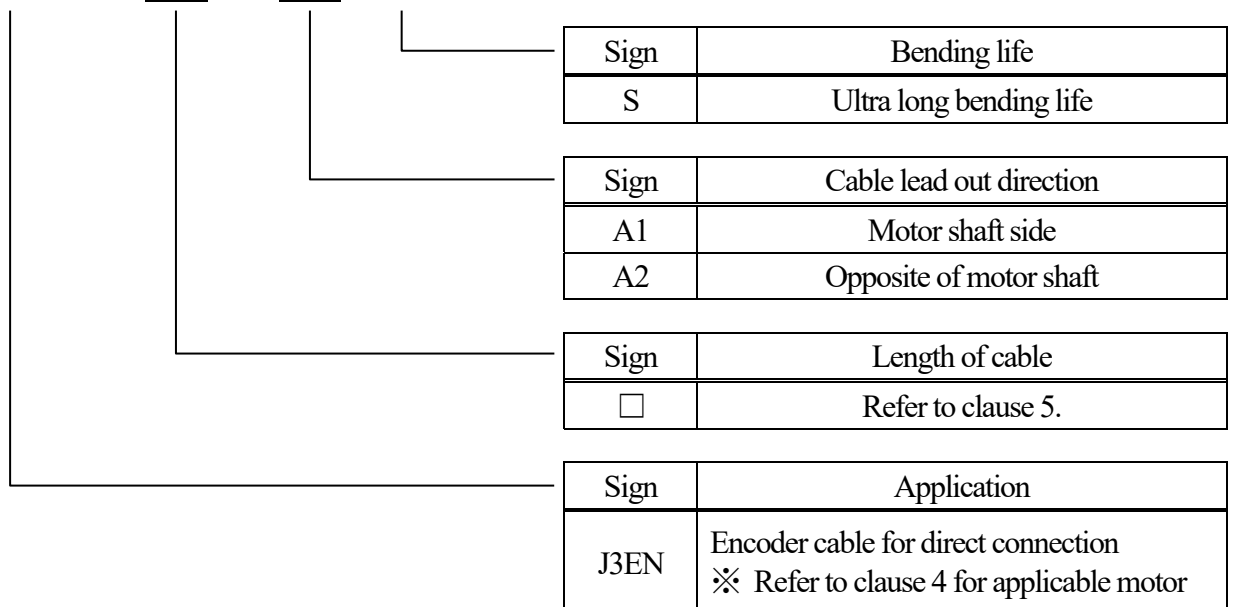
※ Please note that the product specifications described in this specification are subject to change without notice for improvement.

※ If you need copy exactly, please contact our Sales Department.

Copy exactly ... Products made in the same process, same parts

### 2. CABLE TYPE

SC - J3EN CBL □ M - ■ - S



### 3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
20276	80°C	30V

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

- This cable doesn't include the toxic substances in RoHS.

### 4. APPLICABLE SERVO MOTOR

HG-KR, HG-MR series motor

HF-KN, HF-KP, HF-MP series motor

## 5. LENGTH OF CABLE

1 to 10m Specified by 1m unit

## 6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-J3ENCBL□M-■-S ×××××××

- ※ □ is a figure from 1 to 10.
- ※ ■ is cable lead out direction from A1, A2.
- ※ ××××××× are the serial number for seven digits.

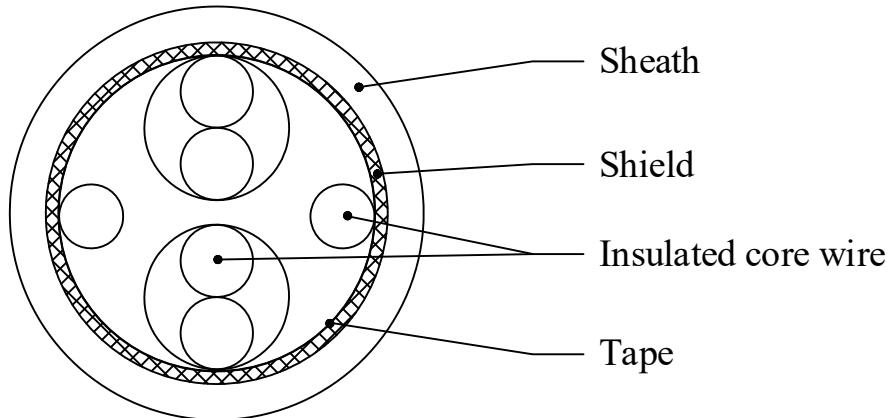
## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification	
Structure		—	AWG24×2C	AWG22×2P
Conductor	Conductor size	—	AWG24	AWG22
	Outer diameter	mm	Approx. 0.6	Approx. 0.8
Insulation	Material	—	ETFE	
	Outer diameter	mm	Approx. 1.1	Approx. 1.3
Twisted pair	Number of pairs	—	—	2P
	Number of insulated core wire	—	2C	2C
Shield	Material	—	Copper alloy braid	
Sheath	Material	—	High elastic PVC	
	Color	—	Black	
Overall diameter		mm	Approx. 7.1	
Electrical characteristics	Insulation resistance	MΩ · km	Over 500	
	Withstand voltage	V for 1 minute	AC500	
Operating temperature range		°C	-10~+60 (without condensation)	
Minimum Bend Radius		mm	6 times the overall diameter	
Bending life		—	Over 10 million times *1 (Bend radius: Minimum bend radius)	
Flame Retardant		—	UL1581 VW-1	
Connector	Servo amplifier side	Type	Molex Japan LLC 54599-1016 (Connector set) or 3M Japan Limited 36210-0100PL (Receptacle) 36310-3200-008 (Shell kit)	
		IP rating	IP20*2	
	Servo motor side	Type	Tyco electronics Japan G.K. 2174053-1 (Micro motor connector)	
		IP rating	IP65*2	

\*1 This is the test result, not a guaranteed value. ( The performance would change depending on 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

[Unit : mm]

