

Specification
for
General purpose AC Servo
Encoder cable

Type SC-AENSJ4CBL□M-H

MITSUBISHI ELECTRIC
SYSTEM & SERVICE CO.,LTD

Note

Revision								Drawn	Check	Design	Approved
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Send to								Date		Dwg	
								7 Sep.,2022		X953503D70003-E81	
								Order			

1. SCOPE

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

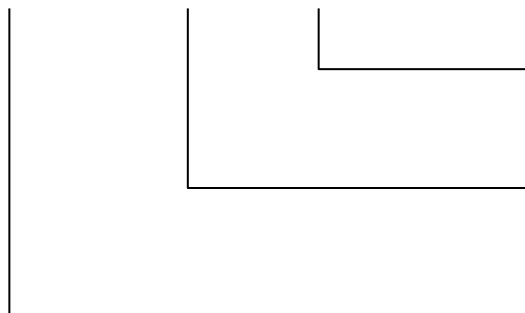
- SC-AENSJ4CBL□M-H

※ The Products covered in this specification don't include the toxic substances in RoHS.

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

2. CABLE TYPE

SC - AENSJ4 CBL □ M - H



Sign	Bending life
H	Long bending life
Sign	Length of cable
□	Refer to clause 4
Sign	Application
AENSJ4	Four-wire type encoder relay cable

3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
20276	80°C	30V

4. APPLICABLE SERVO MOTOR / LENGTH OF CABLE

1 to 100m

※ Refer to the CABLE SELECTION TABLE "R9535021-018028-015" for applicable motors, connection cables and total cable length.

5. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-AENSJ4CBL□M-H xxxxxxxx

※ □ is a figure from 1 to 100.

※ xxxxxxxx are the serial number for seven digits.

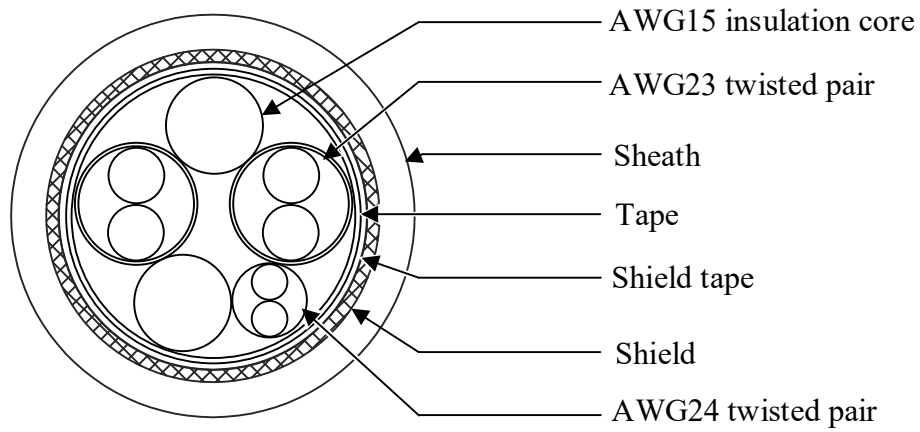
6. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification		
Wire					
Structure		—	AWG15×2C+AWG23×2P+AWG24×1P		
Conductor	Conductor size	—	AWG15	AWG23	AWG24
	Outer diameter	mm	Approx.2.0	Approx.0.8	Approx.0.7
Insulation	Material	—	Special elastomer	Cross-linked PE	Special elastomer
	Outer diameter	mm	Approx.2.4	Approx.1.6	Approx.1.0
Twisted pair	Number of insulated core wire	—	—	2C	2C
	Outer diameter	mm	—	Approx.3.0	Approx.1.8
Twisted	Number of pairs	—	—	2P	1P
	Number of insulated core wire	—	2C	—	—
Shield	Material	—	Tin coated copper braid		
Sheath	Material	—	Flame resisting PVC		
	color	—	Black		
Overall diameter		mm	Approx. 8.7		
Cable weight		kg/km	120		
Electrical characteristics	Insulation resistance	MΩ・km	Over 100		
	Withstand voltage	V / for 1 min	AC500		
Minimum bend radius		mm	6 times the overall diameter		
Bending life		—	Over 1 million times ^{*1} (by Minimum bend radius)		
Flame retardant		—	UL1581 VW-1		
Connector					
Amplifier side		Type	DDK Ltd. CMV1-CR10P-M2 (Cable receptacle)		
		IP rating	IP67 ^{*2}		
Motor side		Type	DDK Ltd. CMV1-SP10S-M2 (Straight plug)		
		IP rating	IP67 ^{*2}		
Cable harness					
Environment	Ambient temperature	℃	0 to 60 (Without freezing)		
	Ambient humidity	%RH	5 to 95 (Without condensation)		
	Ambience	—	Indoors (no direct sunlight), no corrosive gas, inflammable gas, oil mist, or dust		
Electrical characteristics	Insulation resistance	MΩ・km	Over 10		
	Withstand voltage	V / for 1 min	AC500		

*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.

7. STRUCTURAL DRAWING



8. OUTLINE DRAWING

[Unit : mm]

