

1. SCOPE

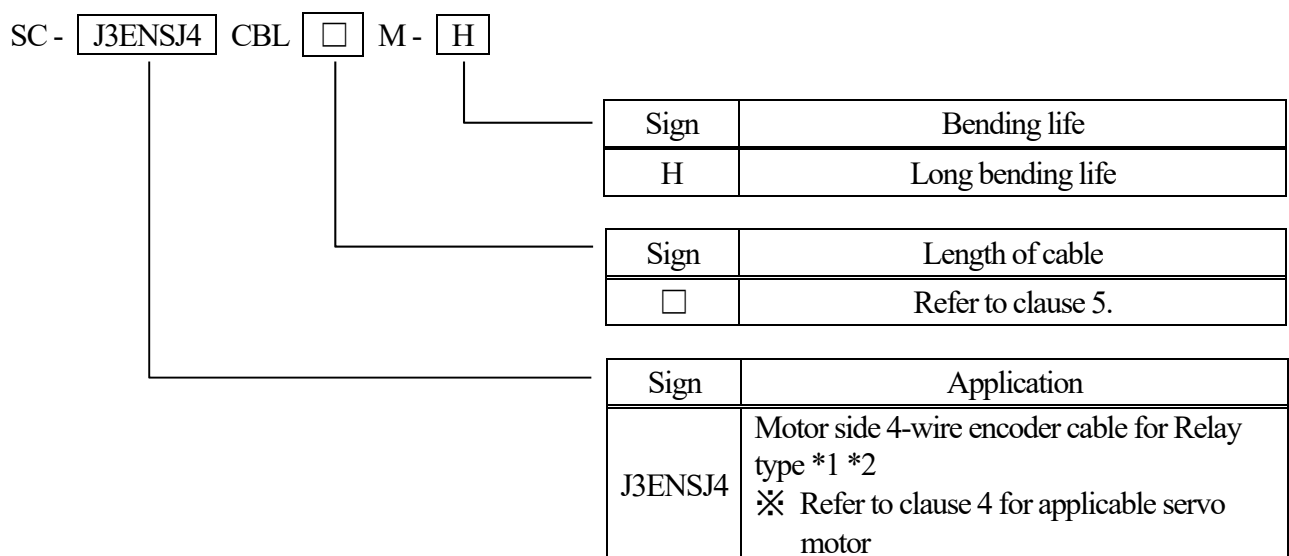
This specification covers the requirements for the General purpose AC Servo Long Distance Encoder cable.

- SC-J3ENSJ4CBL□M-H

※ 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



*1 Please use it with amplifier side encoder cable.

Refer to clause 6 for confirming the combination and cable length.

*2 This cable is available in 4-wire type. Parameter setting is required to use the 4-wire type encoder cable.

Refer to "SERVO AMPLIFIER INSTRUCTION MANUAL issued by Mitsubishi Electric Corporation" for more details.

3. APPLICABLE STANDARDS

Wire part : UL standard (UL 758 : AWM)

UL Style No.	Rated	
20276	80°C	30V

4. APPLICABLE SERVO MOTOR

HG-SR, HG-RR, HG-UR series motor
 HG-JR53, 73, 103, 153, 203, 353, 503,
 534, 734, 1034, 1534, 2034, 3534, 5034 motor
 HF-SP, HC-LP, HC-RP, HC-UP, HA-LP series motor
 HF-JP53, 73, 103, 153, 203, 353, 503,
 534, 734, 1034, 1534, 2034, 3534, 5034 motor

5. LENGTH OF CABLE

1 to 85m Specified by 1m unit

6. LENGTH OF CABLE FOR RELAY CONNECTION

Combination		Total cable length
Amplifier side	Motor side	
SC-J3ENS4CBL□M-H	SC-J3ENSJ4CBL□M-H	90m or less

7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-J3ENSJ4CBL□M-H ×××××××

※ □ is a figure from 1 to 85.

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

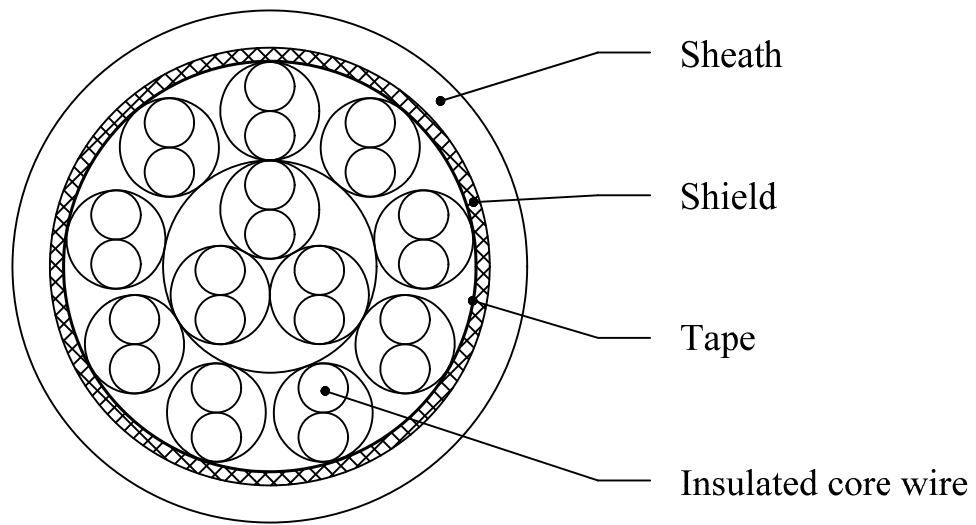
8. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Structure		—	AWG25×12P
Conductor	Conductor size	—	AWG25
	Outer diameter	mm	Approx. 0.58
Insulation	Material	—	ETFE
	Outer diameter	mm	Approx. 0.88
Twisted pair	Number of insulated core wire	—	2C
	Outer diameter	mm	Approx.1.8
Twisted	central layer	—	3P
	the first layer	—	9P
Shield	Material	—	Tin coated copper braid
Sheath	Material	—	Flame resisting PVC
	Color	—	Black
Overall diameter		mm	Approx. 8.9
Electrical characteristics	Insulation resistance	MΩ・km	Over 100
	Withstand voltage	V for 1 minute	AC500
Operating temperature range		°C	-10~+60 (without condensation)
Minimum Radius Bend		mm	6 times the overall diameter
Bending Life		—	Over one million times* ¹ (Radius Bend : Minimum bend radius)
Flame Retardant		—	UL1581 VW-1
Connector	Servo amplifier side	Type	DDK Ltd. CMV1-CR10P-M2 (Cable receptacle)
		IP rating	IP67* ²
	Servo motor side	Type	DDK Ltd. CMV1-SP10S-M2 (Straight plug)
		IP rating	IP67* ²

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

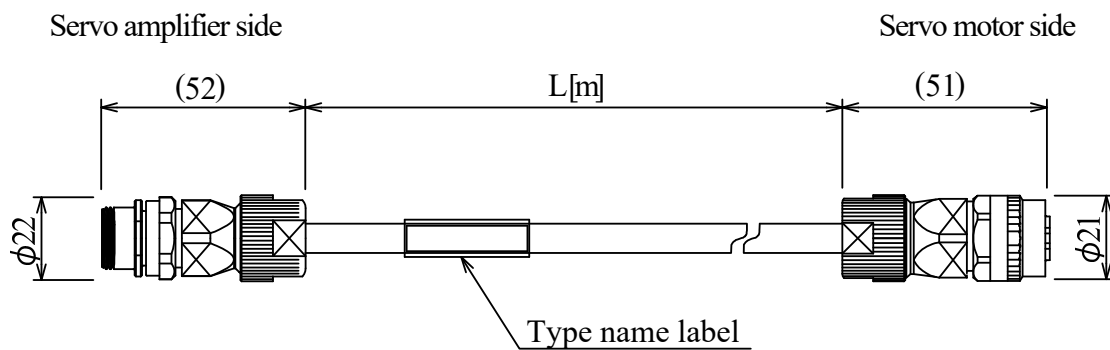
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

9. STRUCTURAL DRAWING



10. OUTLINE DRAWING

[Unit : mm]



11. SYSTEM CONFIGURATION DIAGRAM

