

1. SCOPE

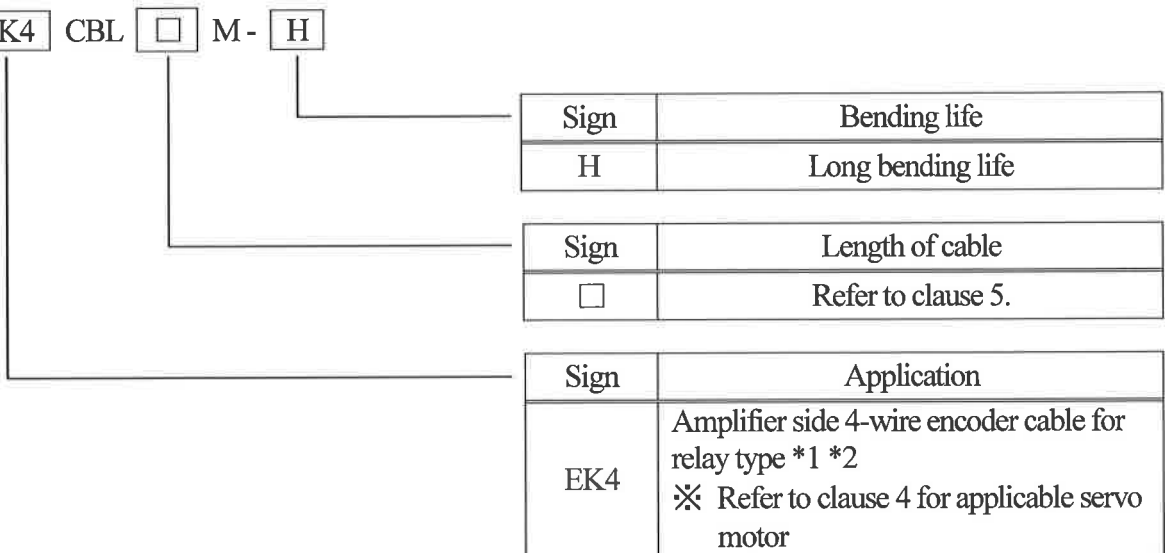
This specification covers the requirements for the General purpose AC Servo Long Distance Encoder cable type SC-EK4CBL□M-H.

※ 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

SC - EK4 CBL M - H



*1 Please use it with motor 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

UL758 AWM STYLE 20276 (wire part)

4. APPLICABLE SERVO MOTOR

HG-KR, HG-MR series motor
 HF-KN, HF-KP, HF-MP series motor

5. LENGTH OF CABLE

1 to 100m
 Specified by 1m unit (1~50m) / 5m unit (55~100m)

6. LENGTH OF CABLE FOR RELAY CONNECTION

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

7. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-EK4CBL□M-H ×××××××

- ※ □ is a figure from 1 to 100.
- ※ ××××××× are the serial number for seven digits.

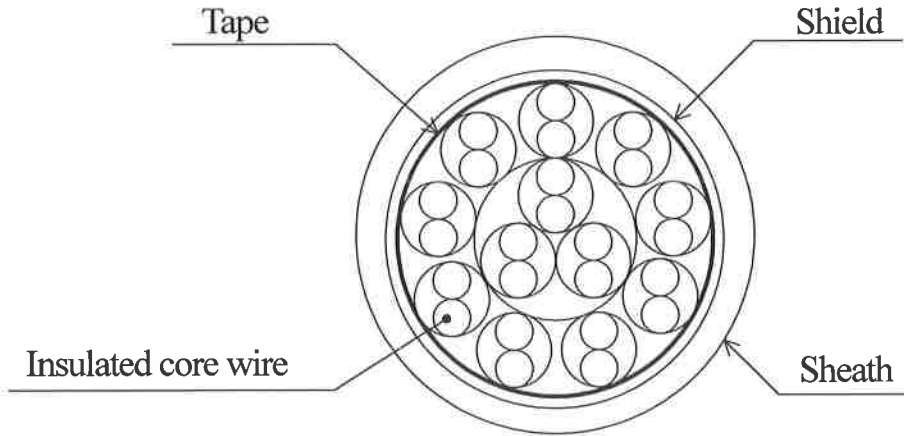
8. STRUCTURE AND CHARACTERISTICS

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	1.8
Twisted	Number of pairs (central layer)	—	3P
	Number of pairs (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	Over 55
Bending Life		—	Over one million times ^{*1} (Radius Bend 55mm)
Flame Retardant		—	UL1581 VW-1
Connector	Servo amplifier side	Type	3M Japan 36210-0100PL (Receptacle) 36310-3200-008 (Shell kit)
		IP rating	IP20 ^{*2}
	Servo motor side	Type	Tyco electronics Japan 1-172161-9 (Housing) AINIX MTI-0002 (Cable crump)
		IP rating	IP20 ^{*2}

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

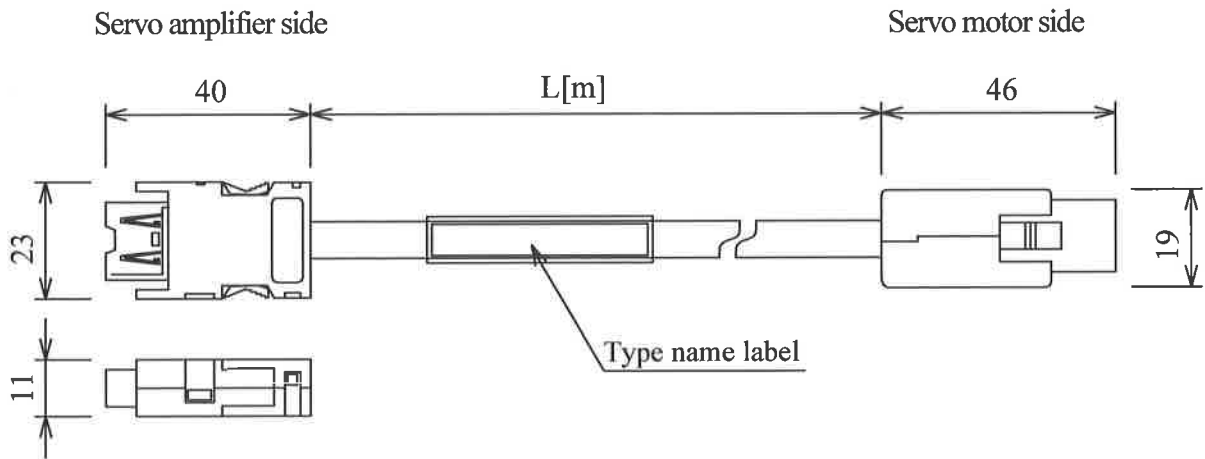
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

9. STRUCTURAL DRAWING



10. OUTLINE DRAWING

[Unit : mm]



11. SYSTEM CONFIGURATION DIAGRAM

