

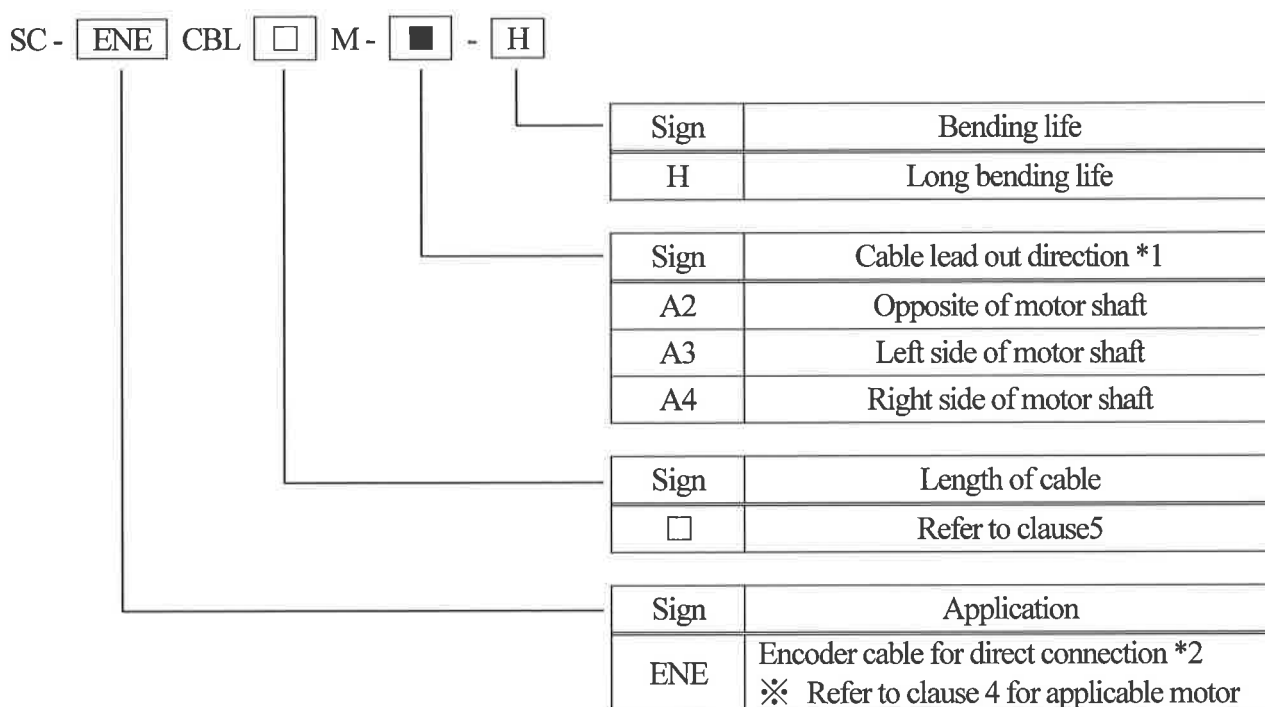
1. SCOPE

This specification covers the requirements for the General purpose AC Servo Long Bending Life Encoder cable type SC-ENECBL□M-■-H.

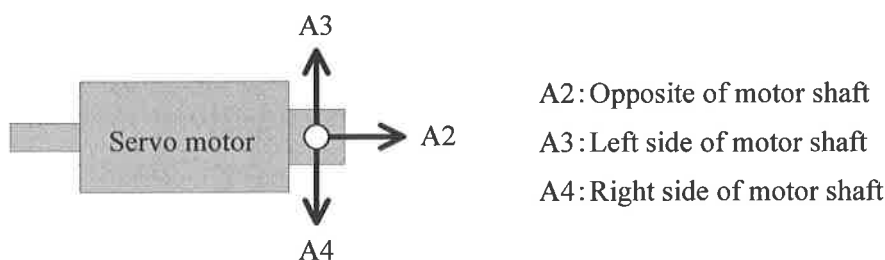
※ This cable doesn't include the toxic substances in RoHS (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB).

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

2. CABLE TYPE



*1 Cable lead out direction(View from cable insertion direction)



*2 The cable(Over 30m) 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

- 1~10m : UL758 AWM STYLE 2517 (wire part)
- 11~29m : UL758 AWM STYLE 20276 (wire part)
- 30~50m : UL758 AWM STYLE 2464 (wire part)

4. APPLICABLE SERVO MOTOR

HF-JP11K1M, 15K1M, 11K1M4, 15K1M4 Motor

5. LENGTH OF CABLE

1 to 50m Specified by 1m unit

6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-ENECBL□M-■-H ×××××××

- ※ □ is a figure from 1 to 50.
- ※ ■ is cable lead out direction from A2, A3, A4.
- ※ ××××××× are the serial number for seven digits.

7. STRUCTURE AND CHARACTERISTICS

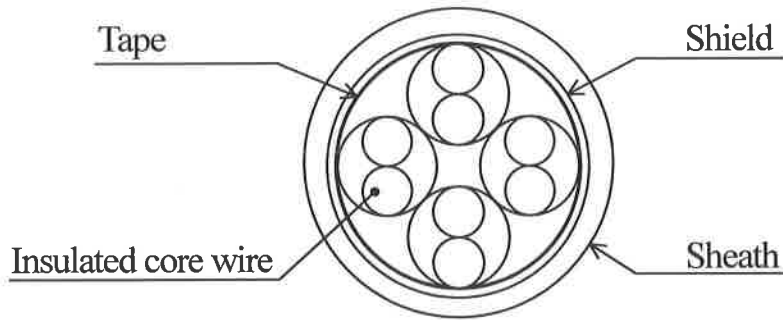
Item		Unit	Specification		
			1~10m	11~29m	30~50m
Structure		—	AWG25×4P	AWG25×6P	AWG25×7P
Conductor	Conductor size	—	AWG25	AWG25	AWG25
	Outer diameter	mm	Approx. 0.58	Approx. 0.58	Approx.058
Insulation	Material	—	ETFE		
	Outer diameter	mm	Approx. 0.98	Approx. 0.98	Approx.0.98
Twisted pair	Number of insulated core wire	—	2C	2C	2C
	Outer diameter	mm	2.0	2.0	2.0
Twisted	Number of pairs	—	4P	6P	7P
Shield	Material	—	Tin coated copper braid		
Sheath	Material	—	Flame resisting PVC		
	Color	—	Black		
Overall diameter		mm	Approx. 7.0	Approx. 8.0	Approx.8.3
Electrical characteristics	Insulation resistance	MΩ · km	Over 100		
	Withstand voltage	V for 1 minute	AC500		
Operating temperature range		°C	-10~+60 (without condensation)		
Minimum Bend Radius		mm	Over 45	Over 50	Over 55
Bending life		—	Over 1 million times ^{*1} (Bend radius: Minimum bend radius of each cable)		
Flame Retardant		—	UL1581 VW-1		
Connector	Servo amplifier side	Type	Molex 54599-1016 (Connector set)		
		IP rating	IP20 ^{*2}		
	Servo motor side	Type	DDK D/MS3106A20-29S (D190) (Plug) CE-20BA-S-D (Angle back shell) CE3057-12A-3-D (Cable crump)		
		IP rating	IP67 ^{*2}		

*1 This is the only test result, not a guaranteed value.(The performance would be different depends on environment they are used.)

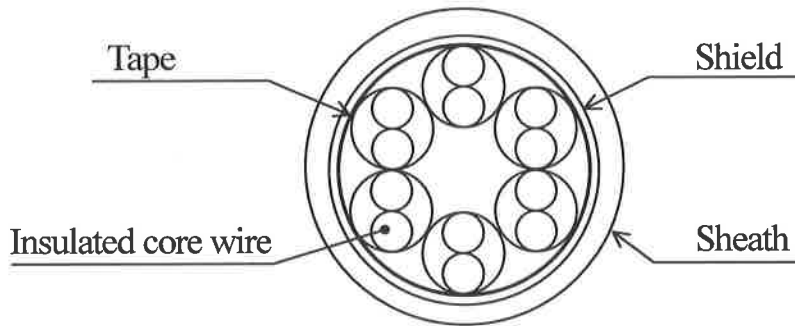
*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

9. STRUCTURAL DRAWING

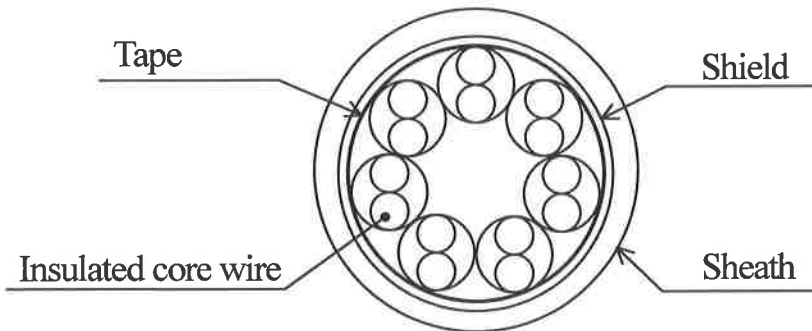
(1) 1~9m



(2) 11~29m



(3) 31~49m



10. OUTLINE DRAWING

[Unit : mm]

