

**Specification**  
**for**  
**General purpose AC Servo**  
**Long Bending Life**  
**Electromagnetic brake cable**

Type SC-BKC1CBL□M-■-H

**MITSUBISHI ELECTRIC**  
**SYSTEM & SERVICE CO.,LTD**

Note

Revision				Drawn	Check	Design	Approved
A	31 Mar.,2017			<i>N. Ishii</i>	<i>S. Kariya</i>	<i>M. Awamura</i>	<i>D. Tsuboshima</i>
B	11 Jun.,2018						
Send to				Date		Dwg	
				26 Apr.,2016		X903703D50052-G14B	
				Order			

## 1. SCOPE

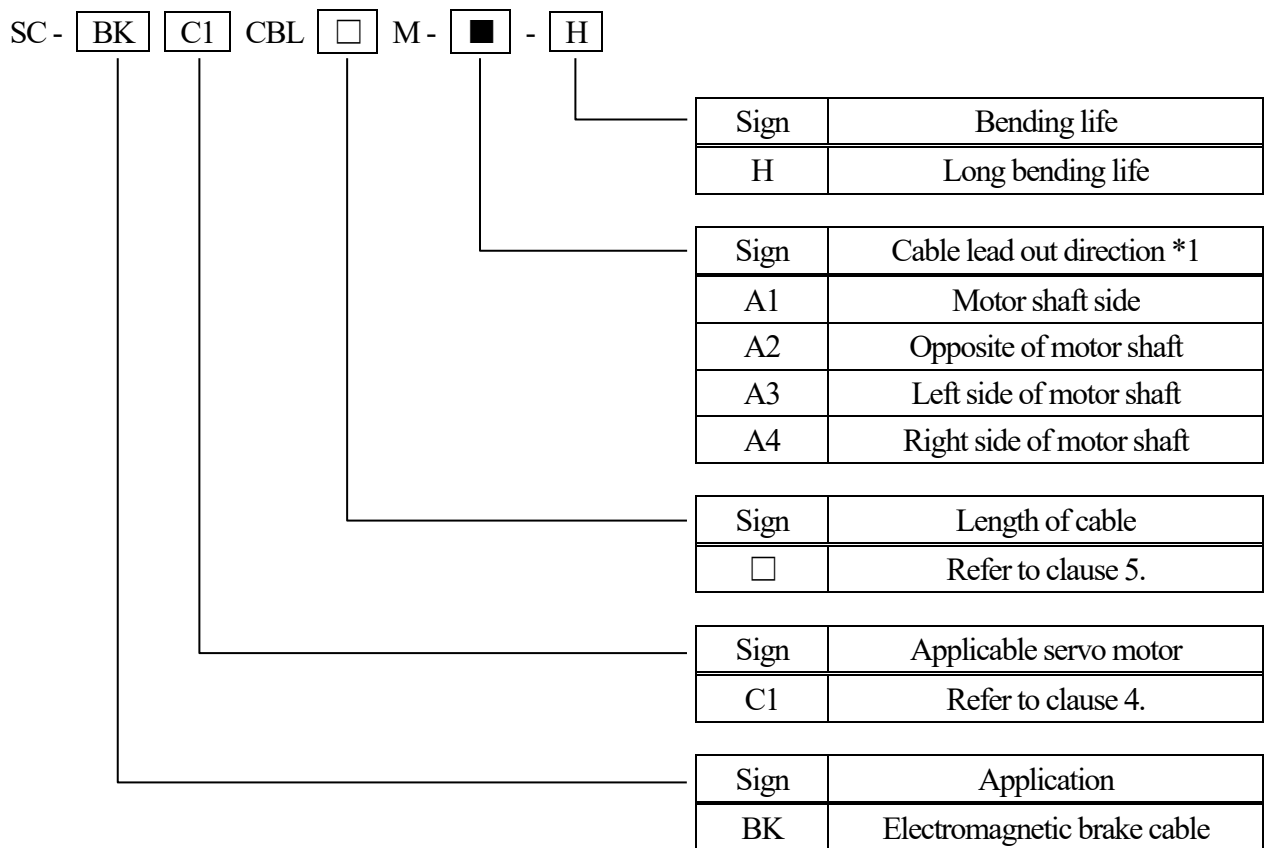
This specification covers the requirements for the General purpose AC Servo Long Bending Life Electromagnetic brake cable.

• SC-BKC1CBL□M-■-H

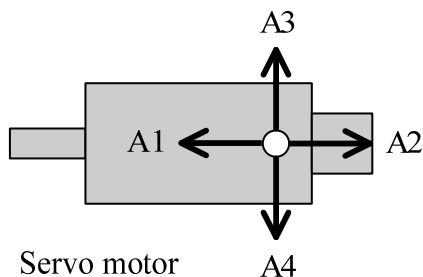
※ The Products covered in this specification don't include the toxic substances in RoHS (Lead, Mercury, Cadmium, Hexavalent Chromium, PBDE, PBB).

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

## 2. CABLE TYPE



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



A1 : Motor shaft side  
 A2 : Opposite of motor shaft  
 A3 : Left side of motor shaft  
 A4 : Right side of motor shaft

(Note) Depending on the situation such as installation environment or combination of cables and connectors, there is a chance not to complete installation. (Even though it's mentioned above) Please make sure the cable lead out direction before your purchase.

### 3. APPLICABLE STANDARDS

UL758 AWM STYLE 2586 (wire part)

### 4. APPLICABLE SERVO MOTOR

HG-SR series motor

HG-JR53B, 73B, 103B, 153B, 203B, 353B, 503B, 703B, 903B,  
534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B motor

HF-SP series motor

HF-JP53B, 73B, 103B, 153B, 203B, 353B, 503B, 703B, 903B,  
534B, 734B, 1034B, 1534B, 2034B, 3534B, 5034B, 7034B, 9034B motor

### 5. LENGTH OF CABLE

1 to 30m Specified by 1m unit

### 6. EXAMPLE OF PRINTING CABLE TYPE NAME

SC-BKC1CBL□M-■-H ×××××××

- ※ □ is a figure from 1 to 30.
- ※ ■ is cable lead out direction from A1, A2, A3, A4.
- ※ ××××××× are the serial number for seven digits.

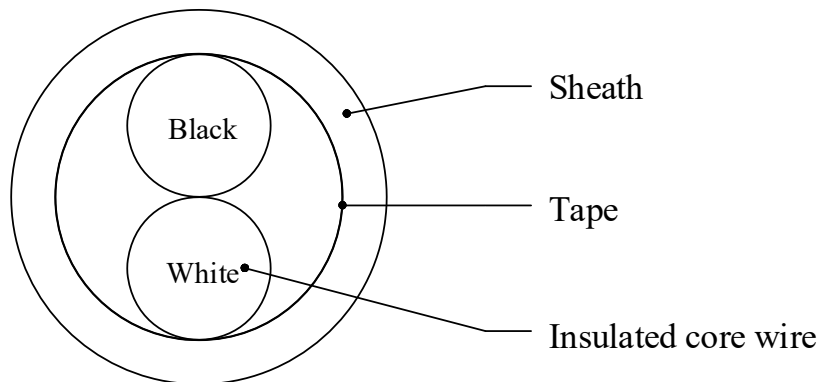
## 7. STRUCTURE AND CHARACTERISTICS

Item		Unit	Specification
Structure		—	AWG16×2C
Conductor	Conductor size	—	AWG16
	Outer diameter	mm	Approx. 1.75
Insulation	Material	—	ETFE
	Outer diameter	mm	Approx. 2.55
Stranding	Number of insulation core wire	—	2C
Sheath	Material	—	Flame resisting PVC
	Color	—	Black
Overall diameter		mm	Approx. 7.2
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	6 times the overall diameter
Bending life		—	Over 1 million times* <sup>1</sup> (Bend radius: Minimum bend radius)
Flame retardant		—	UL1581 VW-1
Connector	Power supply side		—
	Motor side	Type	DDK Ltd. CM10-AP2S-M (D6) (Angle plug) or CMV1-AP2S-M2 (Angle plug)
		IP rating	IP67* <sup>2</sup>

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

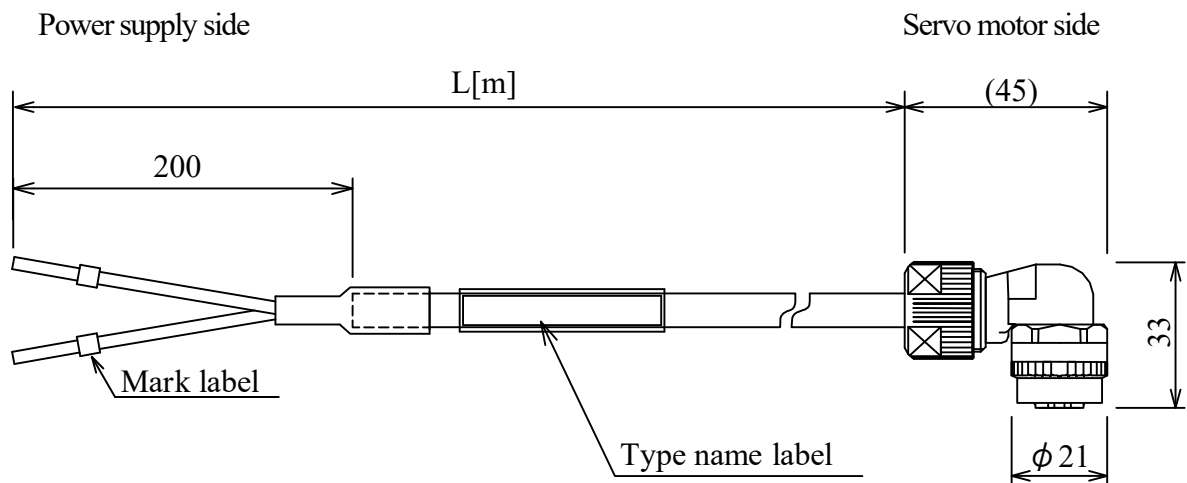
\*2 The IP rating indicated is for the connector's protection against ingress of dust and water when coupled to a servo amplifier/servo motor. If the IP rating of the servo amplifier/servo motor differs from that of these connectors, overall IP rating depends on the lowest of all.

## 8. STRUCTURAL DRAWING



## 9. OUTLINE DRAWING

[Unit : mm]



Refer to the following table for mark label and insulation color.

Mark label	Insulation color
B1	White
B2	Black