

## Sales and Service

### Connector Change for the Encoder Cables, Electromagnetic Brake Cables, and Connector Sets of the Medium-Capacity General-Purpose AC Servo Motors

Thank you for your continued patronage of the Mitsubishi general-purpose AC servo and FA products. We will change the connectors for the encoder cables, electromagnetic brake cables, and connector sets of the medium-capacity general-purpose AC servo motors. We ask for your understanding in this matter.

#### 1. Reason for Change

Regarding the connectors used for the encoder cables, electromagnetic brake cables, and connector sets of the medium-capacity general-purpose AC servo motors, we improved the fits of the cables under a high vibration environment, and the connectors will be changed to the improved connectors.

#### 2. Target Models

Encoder cable:

For HF-SP, HC-LP,  
HC-RP, HC-UP, HA-LP,  
HF-JP (9 kW or less)  
(Direct connection type)

MR-J3ENSCBL□ M - □

Flex life  
H: Long flex life  
L: Standard flex life

Cable length  
2: 2 m, 5: 5 m, 10: 10 m, 20: 20 m, 30: 30 m, 40: 40 m,  
50: 50 m (H only)

Connector sets for encoder cable: MR-J3SCNS (Straight)

For HF-SP, HC-LP, HC-RP, MR-J3SCNSA (Right angle)  
HC-UP, HA-LP,  
HF-JP (9 kW or less)

Connector sets for the electromagnetic brake: MR-BKCNS1 (Straight)

For HF-SP, HF-JP (9 kW or less) MR-BKCNS1A (Right angle)

#### 3. Details of Change

The connectors will be changed as follows.

- (1) Connector shape and contact shape  
The connector shape and contact shape will be changed. For details, refer to table 1.
- (2) Connector insulator color and contact hole shape  
The connector insulator color will be changed to gray, and the contact hole shape will also be changed.  
For details, refer to table 1. These changes will make you find easily whether the contact is inserted or not.
- (3) Enclosed connector set change along with the applicable cable outer diameter change for the connector  
To make the clamping force stable during cable fabrication, the following two types of the cable outer diameter will be available. Select an applicable connector bushing and clamp based on the cable outer diameter. Accordingly, we will enclose two types of bushings and clamps in the connector set.

Conventional bushing and clamp	Applicable cable outer diameter	New bushing and clamp	Applicable cable outer diameter
M size	φ6.0 to 9.0	M1 size	φ5.5 to 7.5
		M2 size	φ7.0 to 9.0

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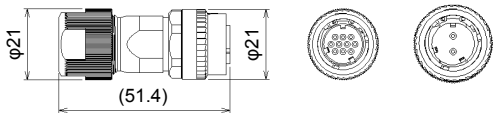
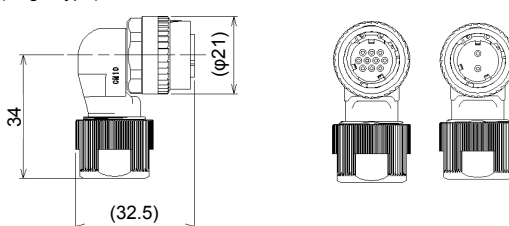
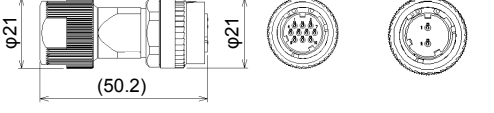
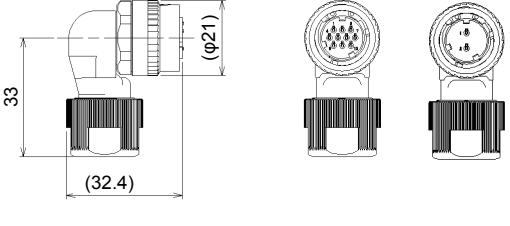
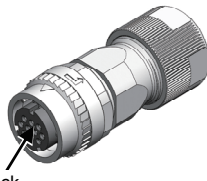
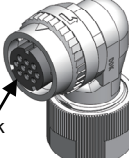
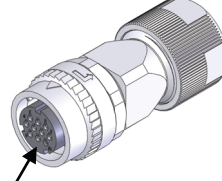
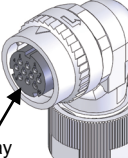
The M2 size bushing and clamp are attached to the connector. We will enclose the M1 size bushing and clamp in the connector set.

When fabricating a cable by using a Mitsubishi connector set, check the cable outer diameter and use an applicable bushing and clamp.

For details, refer to the enclosed connector user's manual.

The cables used are the same as the conventional connector cables.

Table 1 Change details of connector

	Conventional connector	New connector
Model	CM10-SP10S-M(D6): For encoder (Straight) CM10-AP10S-M(D6): For encoder (Angle) CM10-SP2S-L(D6): For electromagnetic brake (Straight) CM10-AP2S-L(D6): For electromagnetic brake (Angle)	CMV1-SP10S-M1, M2: For encoder (Straight) CMV1-AP10S-M1, M2: For encoder (Angle) CMV1-SP2S-L: For electromagnetic brake (Straight) CMV1-AP2S-L: For electromagnetic brake (Angle)
Dimensions	(Straight type)  (Angle type) 	(Straight type)  (Angle type) 
Appearance	(Straight type)  (Angle type) 	(Straight type)  (Angle type) 
Contact model (Enclosed connector set, cables, and others)	CM10-#22SC(S1)(D8)-100: MR-J3SCNS(A) CM10-#22SC(S2)(D8)-100: MR-BKCNS1(A) CM10-#22SC(C1)(D8)-100 or 5000 CM10-#22SC(C2)(D8)-100 or 5000: Mitsubishi encoder cable	CMV1-#22ASC-S1-100: MR-J3SCNS(A) CMV1-#22BSC-S2-100: MR-BKCNS1(A) CMV1-#22ASC-C1-100 or 5000 CMV1-#22ASC-C2-100 or 5000: Mitsubishi encoder cable
Manufacturer	DDK Ltd.	
Others	The new connector can fit the conventional servo motor. Since the contact enclosed with the connector set is the solder type, you can solder the contact for assembly. (If you use a crimping contact made by manufacturers other than Mitsubishi, note that the assembly tool and others for the crimping contact have been changed.)	

#### 4. Schedule

This change will be made sequentially from the November 2011 production.

There may be cases when both new and old products exist in the distribution stage. We ask for your understanding in this matter.