

## Specifications for Motor Cables of AZ Series

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This document describes types and connector pin assignments for the motor cable of the **AZ** Series.

### 1. Motor cable types

For the **AZ** Series, there are two types of the motor cables as shown below.


- **Connection cable**

Use when connecting a motor and a driver.

 When installing the motor on a moving part, use a flexible cable having excellent flex resistance.

- **Extension cable**

Use when extending the distance between a motor and a driver or when the length of the connection cable used is not enough. Extend the distance by connecting the extension cable to the connection cable.

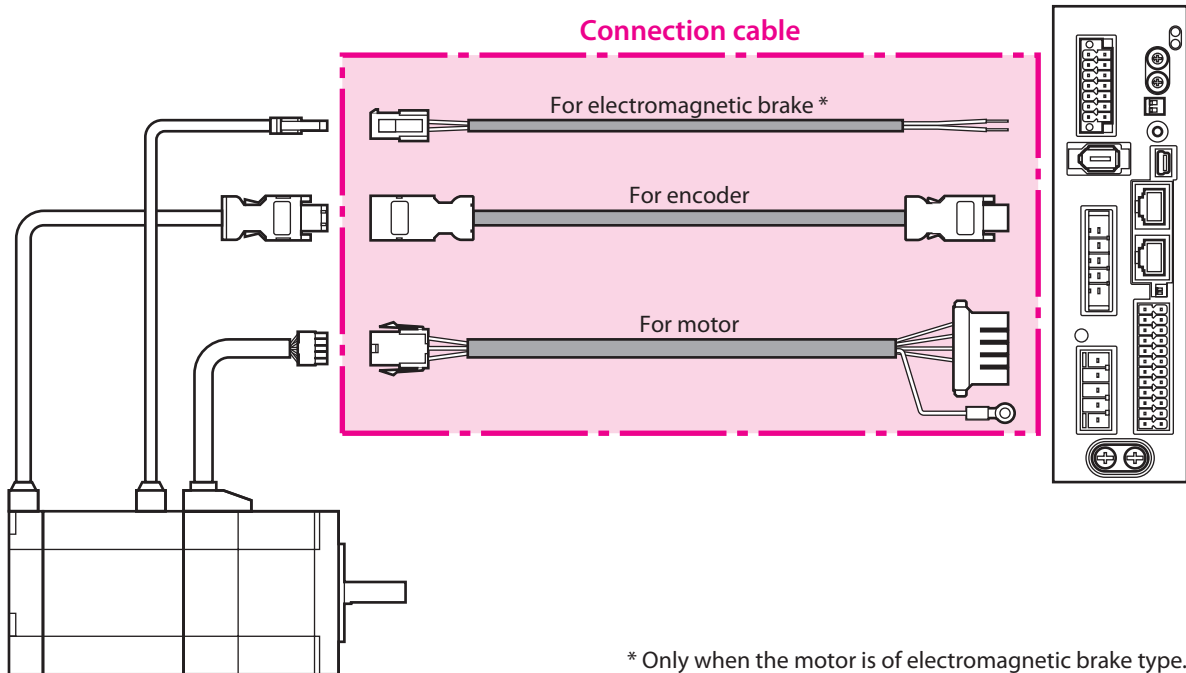


- When installing the motor on a moving part, use a flexible cable having excellent flex resistance.
- When extending the wiring length by connecting an extension cable to the connection cable, keep the total cable length to 20 m (65.6 ft.) or less.

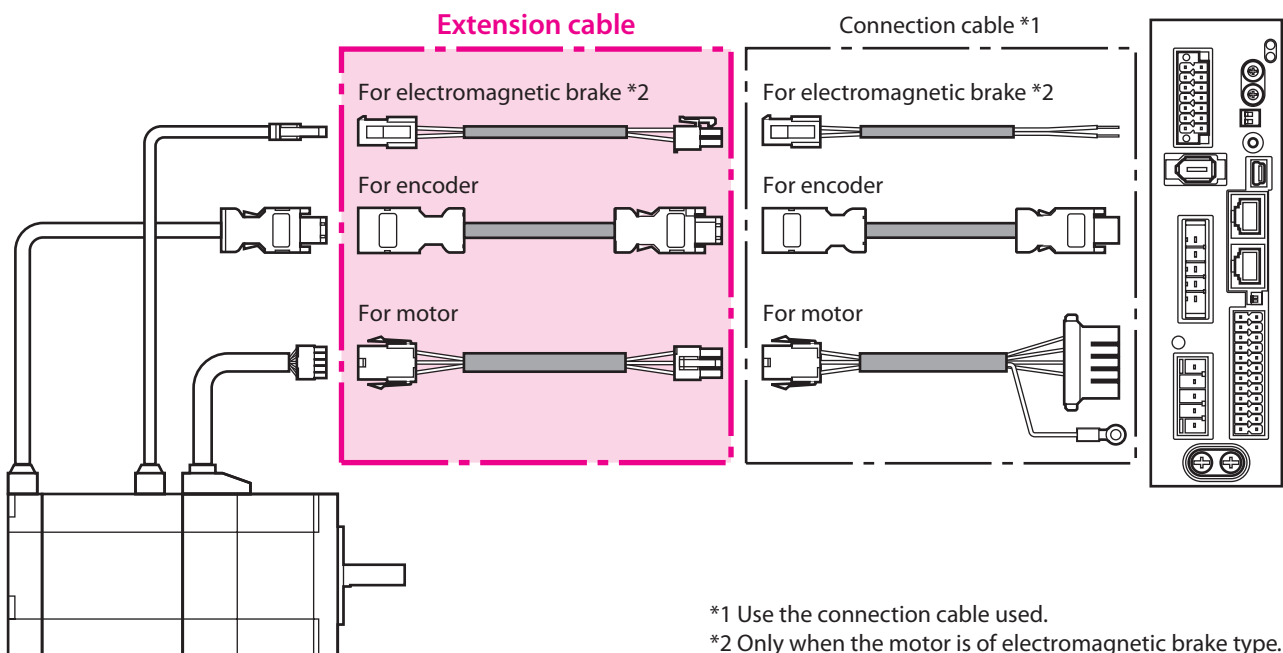
# Motor cables for AC power input

## 1. Configurations of cables

### ■ Connection cable



### ■ Extension cable



## 2. Connection cable



When installing the motor on a moving part, use a flexible cable having excellent flex resistance.

### ■ About the model name

Ordering model names of the connection cables are shown in the tables below.

□ in the model names indicates a number representing the length of a connection cable.

[Example: **005** → 0.5 m (1.6 ft.), **010** → 1 m (3.3 ft.)]

#### For standard type motor

Cable type	Model
Connection cable	<b>CC□□□VZF</b>
Flexible connection cable	<b>CC□□□VZR</b>

#### For electromagnetic brake type motor

Cable type	Model
Connection cable	<b>CC□□□VZFB</b>
Flexible connection cable	<b>CC□□□VZRB</b>

### ■ Connector pin assignments

#### ● Cable for motor

##### ● Motor side

Manufacture	Molex
Housing	5559-06P-210
Terminal	5558T

##### ● Pin assignment

Pin No.	Color	Lead size
1	Orange	AWG22 (0.3 mm <sup>2</sup> )
2	Green	
3	Green/Yellow	AWG18 (0.75 mm <sup>2</sup> )
4	Blue	AWG22 (0.3 mm <sup>2</sup> )
5	Red	
6	Black	

##### ● Driver side

Manufacture	J.S.T. Mfg Co., Ltd.
Housing	F32FSS-05V-KX
Terminal	SF3F-01GF-P2.0

##### ● Pin assignment

Pin No.	Color	Lead size
1	Blue	AWG22 (0.3 mm <sup>2</sup> )
2	Orange	
3	Red	
4	Black	
5	N.C.	—

#### ● Cable for encoder [When the cable length is 0.5 to 5 m (1.6 to 16.4 ft.)]

##### ● Motor side

Manufacture	Molex
Model	500655-0609
Terminal	500145-0129

##### ● Driver side

Manufacture	Molex
Model	500654-0609
Terminal	50639-8128

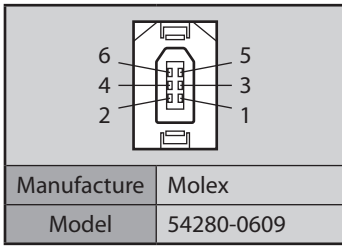
##### ● Pin assignment

Pin No.	Color	Lead size
1	White	AWG24 (0.2 mm <sup>2</sup> )
2	Black	
3	—	—
4	—	—
5	Purple	AWG24 (0.2 mm <sup>2</sup> )
6	Brown	

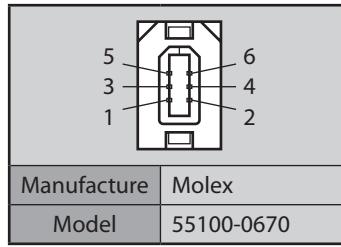
\* Do not connect anything to the pin No.3 and No.4.

● Cable for encoder [When the cable length is 7 to 20 m (23.0 to 65.6 ft.)]

● Motor side



● Driver side



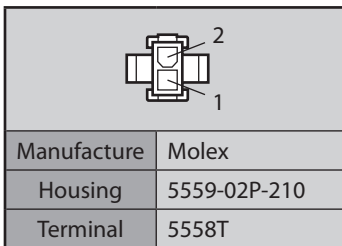
● Pin assignment

The connection cable and the flexible connection cable differ in the diameter of lead wires.

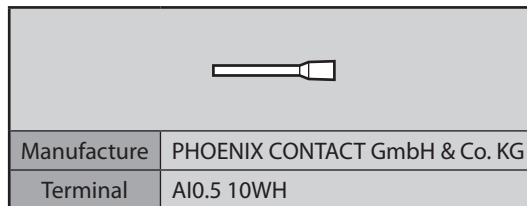
Pin No.	Color	Lead size	
		Connection cable	Flexible connection cable
1	Green	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
2	Black		
3	Red	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
4	White	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
5	Yellow	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
6	Brown		

● Cable for electromagnetic brake

● Motor side



● Driver side



● Pin assignment

The connection cable and the flexible connection cable differ in the diameter of lead wires.

Pin No. *	Color	Lead size	
		Connection cable	Flexible connection cable
1	White	AWG20 (0.5 mm <sup>2</sup> )	AWG21 (0.5 mm <sup>2</sup> )
2	Black		

\* A pin number of the driver side is described on the wire marker of the terminal.

### 3. Extension cable



- When installing the motor on a moving part, use a flexible cable having excellent flex resistance.
- When extending the wiring length by connecting an extension cable to the connection cable, keep the total cable length to 20 m (65.6 ft.) or less.

#### ■ About the model name

Ordering model names of the extension cables are shown in the tables below.

□ in the model names indicates a number representing the length of a extension cable.

[Example: **010** → 1 m (3.3 ft.), **020** → 2 m (6.6 ft.)]

##### For standard type motor

Cable type	Model
Extension cable	<b>CC□□□VZFT</b>
Flexible extension cable	<b>CC□□□VZRT</b>

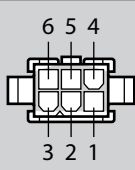
##### For electromagnetic brake type motor

Cable type	Model
Extension cable	<b>CC□□□VZFBT</b>
Flexible extension cable	<b>CC□□□VZRBT</b>

#### ■ Connector pin assignments

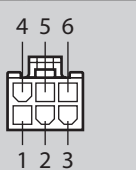
##### ● Cable for motor

###### • Motor side



Manufacture	Molex
Housing	5559-06P-210
Terminal	5558T

###### • Driver side



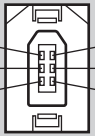
Manufacture	Molex
Housing	5557-06R-210
Terminal	5556T

###### • Pin assignment

Pin No.	Color	Lead size
1	Orange	AWG22 (0.3 mm <sup>2</sup> )
2	Green	
3	Green/Yellow	AWG18 (0.75 mm <sup>2</sup> )
4	Blue	AWG22 (0.3 mm <sup>2</sup> )
5	Red	
6	Black	

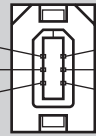
● **Cable for encoder**

● Motor side



Manufacture	Molex
Model	54280-0609

● Driver side



Manufacture	Molex
Model	55100-0670

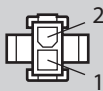
● Pin assignment

The extension cable and the flexible extension cable differ in the diameter of lead wires.

Pin No.	Color	Lead size	
		Extension cable	Flexible extension cable
1	Green	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
2	Black		
3	Red	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
4	White	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
5	Yellow	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
6	Brown		


● **Cable for electromagnetic brake**

● Motor side



Manufacture	Molex
Housing	5559-02P-210
Terminal	5558T

● Driver side



Manufacture	Molex
Housing	5557-02R-210
Terminal	5556T

● Pin assignment

The extension cable and the flexible extension cable differ in the diameter of lead wires.

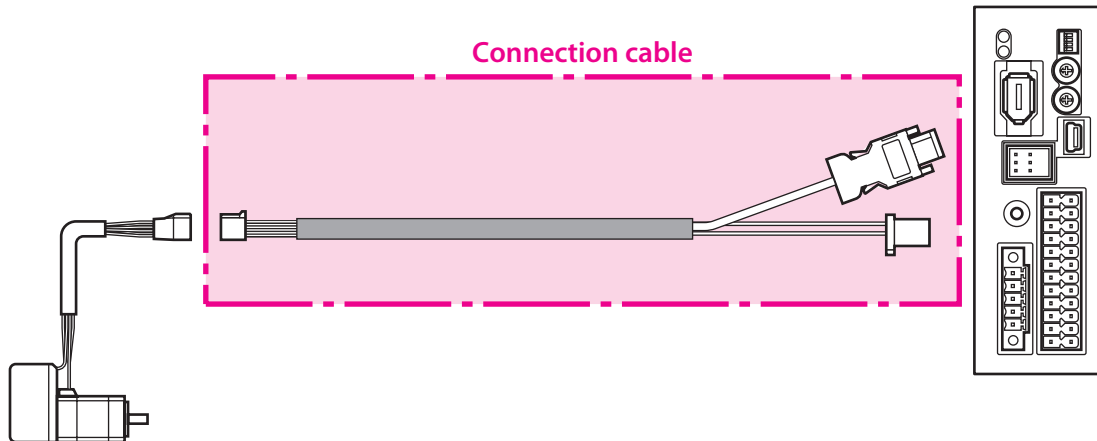
Pin No.	Color	Lead size	
		Extension cable	Flexible extension cable
1	White	AWG20 (0.5 mm <sup>2</sup> )	AWG21 (0.5 mm <sup>2</sup> )
2	Black		

# Motor cables for DC power input

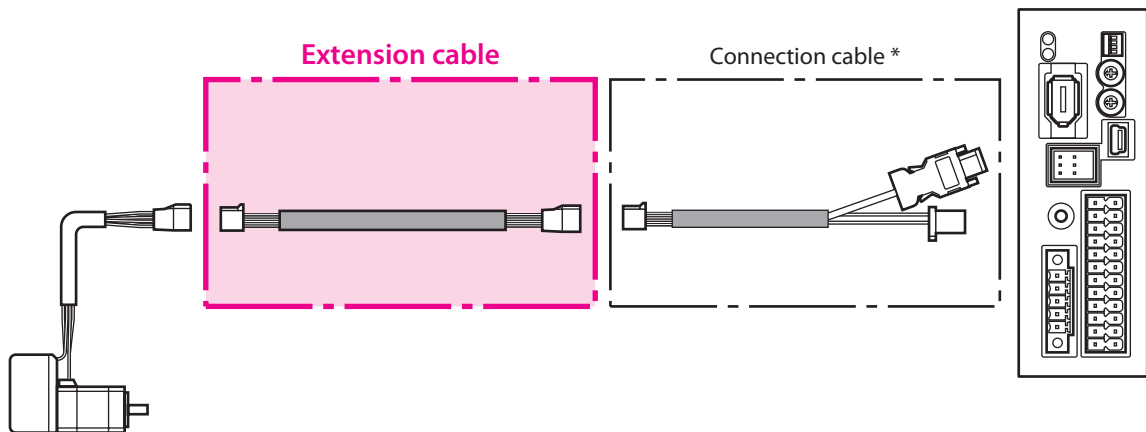
(When connecting with the motor for the AZM14, AZM15, AZM24, or AZM26)

## 1. Configurations of cables

### ■ Connection cable



### ■ Extension cable



\* Use the connection cable used.

## 2. Connection cable



When installing the motor on a moving part, use a flexible cable having excellent flex resistance.

### ■ About the model name

Ordering model names of the connection cables are shown in the tables below.

□ in the model names indicates a number representing the length of a connection cable.

[Example: **005** → 0.5 m (1.6 ft.), **010** → 1 m (3.3 ft.)]

Cable type	Model
Connection cable	<b>CC□□□VZ2F2</b>
Flexible connection cable	<b>CC□□□VZ2R2</b>

### ■ Connector pin assignments

#### • Motor side

Manufacture	HIROSE ELECTRIC CO., LTD.
Housing	DF62C-13S-2.2C
Terminal	DF62-2428SCFA DF62-22SCFA

#### • Pin assignment

Pin No.	Color	Lead size
1	Blue	AWG22 (0.3 mm <sup>2</sup> )
2	Red	
3	–	–
4	Orange	AWG22 (0.3 mm <sup>2</sup> )
5	Gray	
6	–	–
7	Drain wire	AWG26 (0.14 mm <sup>2</sup> )
8	Green	AWG22 (0.3 mm <sup>2</sup> )
9	–	–
10	Black	AWG26 (0.14 mm <sup>2</sup> )
11	White	
12	Brown	
13	Purple	

#### • Driver side (for encoder)

Manufacture	Molex
Model	55100-0670

#### • Pin assignment

Pin No.	Color	Lead size
1	White	AWG26 (0.14 mm <sup>2</sup> )
2	Black	
3	–	–
4	–	–
5	Purple	AWG26 (0.14 mm <sup>2</sup> )
6	Brown	

#### • Driver side (for motor)

Manufacture	J.S.T. Mfg Co., Ltd.
Housing	J11DF-06V-KX
Terminal	SF1F-01GC-P0.6

#### • Pin assignment

Pin No.	Color	Lead size
A1	–	–
A2	Green	AWG22 (0.3 mm <sup>2</sup> )
A3	Orange	
B1	Gray	
B2	Red	
B3	Blue	



### 3. Extension cable



- When installing the motor on a moving part, use a flexible cable having excellent flex resistance.
- When extending the wiring length by connecting an extension cable to the connection cable, keep the total cable length to 20 m (65.6 ft.) or less.

#### ■ About the model name

Ordering model names of the extension cables are shown in the tables below.

□ in the model names indicates a number representing the length of a extension cable.

[Example: **010** → 1 m (3.3 ft.), **020** → 2 m (6.6 ft.)]

Cable type	Model
Extension cable	CC□□□VZ2FT
Flexible extension cable	CC□□□VZ2RT

#### ■ Connector pin assignments

##### • Motor side

Manufacture	HIROSE ELECTRIC CO., LTD.
Housing	DF62C-13S-2.2C
Terminal	DF62-2428SCFA DF62-22SCFA

##### • Driver side

Manufacture	HIROSE ELECTRIC CO., LTD.
Housing	DF62B-13EP-2.2C
Terminal	DF62-EP2428PCFA DF62-EP22PCFA

##### • Pin assignment

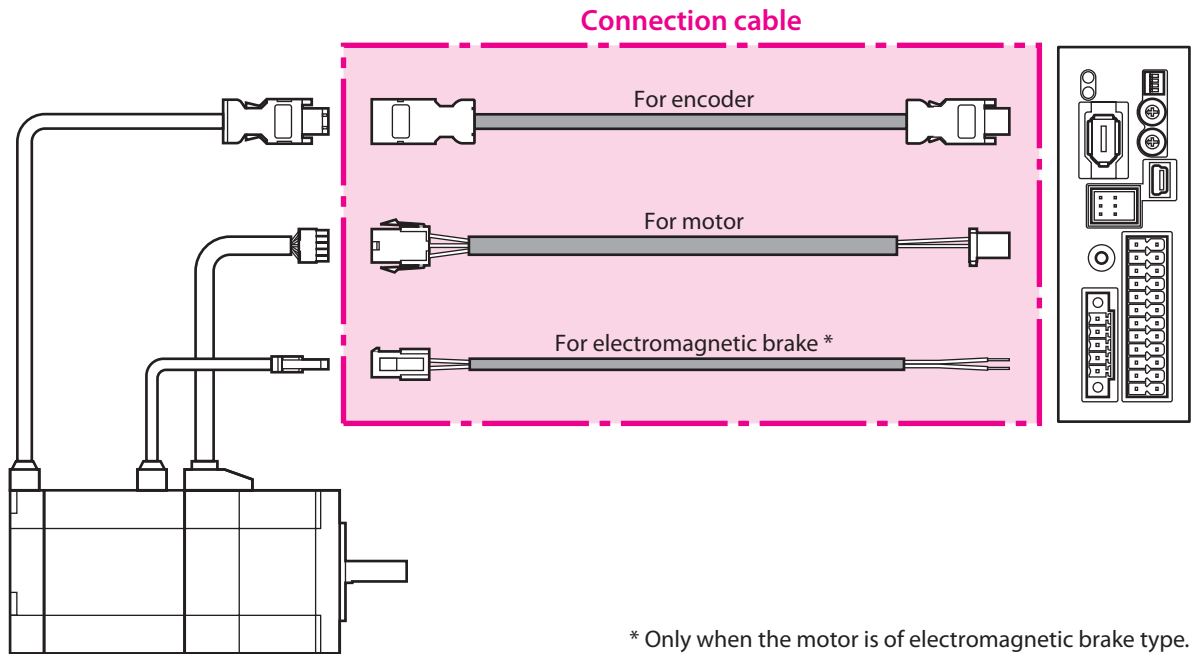
Pin No.	Color	Lead size
1	Blue	AWG22 (0.3 mm <sup>2</sup> )
2	Red	
3	–	–
4	Orange	AWG22 (0.3 mm <sup>2</sup> )
5	Gray	
6	–	–
7	Drain wire	AWG26 (0.14 mm <sup>2</sup> )
8	Green	AWG22 (0.3 mm <sup>2</sup> )
9	–	–
10	Black	AWG26 (0.14 mm <sup>2</sup> )
11	White	
12	Brown	
13	Purple	

# Motor cables for DC power input

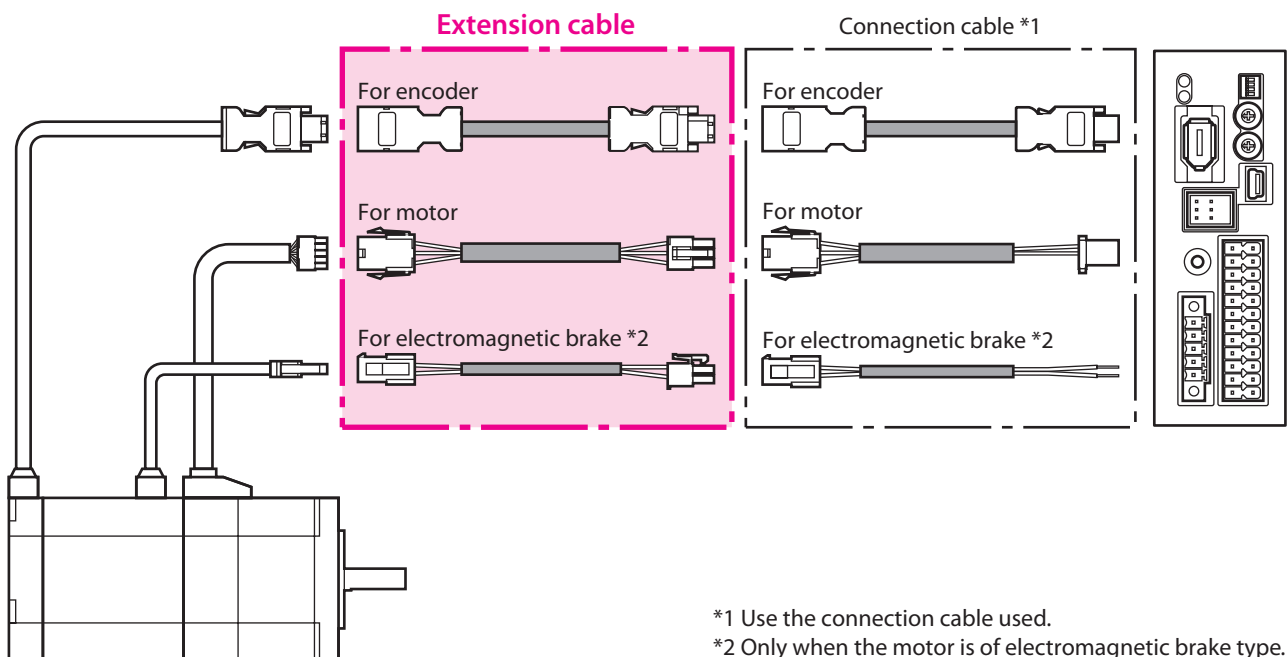
(When connecting with the motor for the AZM46, AZM48, AZM66, or AZM69)

## 1. Configurations of cables

### ■ Connection cable



### ■ Extension cable



## 2. Connection cable



When installing the motor on a moving part, use a flexible cable having excellent flex resistance.

### ■ About the model name

Ordering model names of the connection cables are shown in the tables below.

□ in the model names indicates a number representing the length of a connection cable.

[Example: **005** → 0.5 m (1.6 ft.), **010** → 1 m (3.3 ft.)]

#### For standard type motor

Cable type	Model
Connection cable	<b>CC□□□VZF2</b>
Flexible connection cable	<b>CC□□□VZR2</b>

#### For electromagnetic brake type motor

Cable type	Model
Connection cable	<b>CC□□□VZFB2</b>
Flexible connection cable	<b>CC□□□VZRB2</b>

### ■ Connector pin assignments

#### ● Cable for motor

##### • Motor side

Manufacture	Molex
Housing	5559-06P-210
Terminal	5558T

##### • Pin assignment

Pin No.	Color	Lead size
1	Orange	AWG22 (0.3 mm <sup>2</sup> )
2	Green	
3	Green/Yellow	AWG18 (0.75 mm <sup>2</sup> )
4	Blue	AWG22 (0.3 mm <sup>2</sup> )
5	Red	
6	Black	

##### • Driver side

Manufacture	J.S.T. Mfg Co., Ltd.
Housing	J11DF-06V-KX
Terminal	SF1F-01GC-P0.6 SF1F-21GC-P0.6

##### • Pin assignment

Pin No.	Color	Lead size
A1	Green/Yellow	AWG18 (0.75 mm <sup>2</sup> )
A2	Green	AWG22 (0.3 mm <sup>2</sup> )
A3	Orange	
B1	Black	
B2	Red	
B3	Blue	

#### ● Cable for encoder [When the cable length is 0.5 to 5 m (1.6 to 16.4 ft.)]

##### • Motor side

Manufacture	Molex
Model	500655-0609
Terminal	500145-0129

##### • Driver side

Manufacture	Molex
Model	500654-0609
Terminal	50639-8128

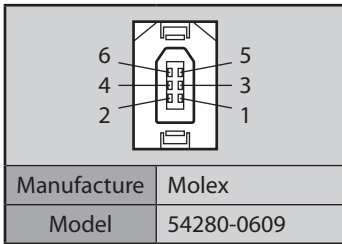
##### • Pin assignment

Pin No.	Color	Lead size
1	White	AWG24 (0.2 mm <sup>2</sup> )
2	Black	
3	–	–
4	–	–
5	Purple	AWG24 (0.2 mm <sup>2</sup> )
6	Brown	

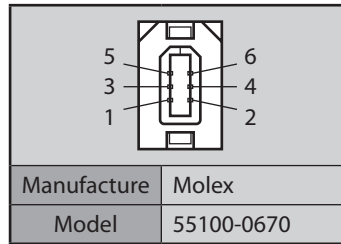
\* Do not connect anything to the pin No.3 and No.4.

● Cable for encoder [When the cable length is 7 to 20 m (23.0 to 65.6 ft.)]

● Motor side



● Driver side



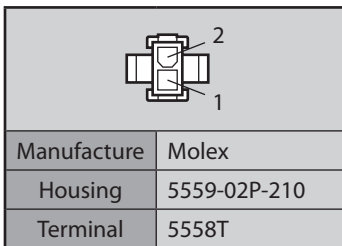
● Pin assignment

The connection cable and the flexible connection cable differ in the diameter of lead wires.

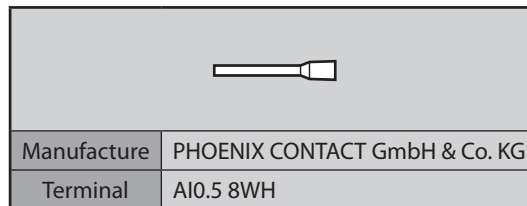
Pin No.	Color	Lead size	
		Connection cable	Flexible connection cable
1	Green	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
2	Black		
3	Red	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
4	White	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
5	Yellow	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
6	Brown		

● Pin assignment of "cable for electromagnetic brake"

● Motor side



● Driver side



● Pin assignment

The connection cable and the flexible connection cable differ in the diameter of lead wires.

Pin No. *	Color	Lead size	
		Connection cable	Flexible connection cable
1	White	AWG20 (0.5 mm <sup>2</sup> )	AWG21 (0.5 mm <sup>2</sup> )
2	Black		

\* A pin number of the driver side is described on the wire marker of the terminal.

### 3. Extension cable



- When installing the motor on a moving part, use a flexible cable having excellent flex resistance.
- When extending the wiring length by connecting an extension cable to the connection cable, keep the total cable length to 20 m (65.6 ft.) or less.

#### ■ About the model name

Ordering model names of the extension cables are shown in the tables below.

□ in the model names indicates a number representing the length of a extension cable.

[Example: **010** → 1 m (3.3 ft.), **020** → 2 m (6.6 ft.)]

##### For standard type motor

Cable type	Model
Extension cable	<b>CC□□□VZFT</b>
Flexible extension cable	<b>CC□□□VZRT</b>

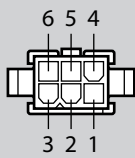
##### For electromagnetic brake type motor

Cable type	Model
Extension cable	<b>CC□□□VZFBT</b>
Flexible extension cable	<b>CC□□□VZRBt</b>

#### ■ Connector pin assignments

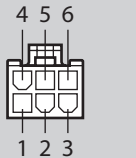
##### ● Cable for motor

###### • Motor side



Manufacture	Molex
Housing	5559-06P-210
Terminal	5558T

###### • Driver side



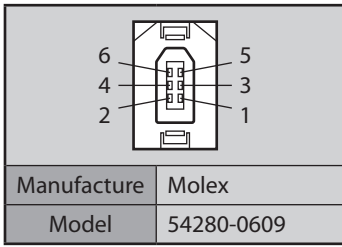
Manufacture	Molex
Housing	5557-06R-210
Terminal	5556T

###### • Pin assignment

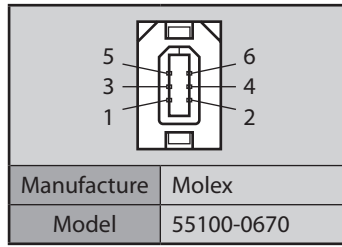
Pin No.	Color	Lead size
1	Orange	AWG22 (0.3 mm <sup>2</sup> )
2	Green	
3	Green/Yellow	AWG18 (0.75 mm <sup>2</sup> )
4	Blue	AWG22 (0.3 mm <sup>2</sup> )
5	Red	
6	Black	

● Cable for encoder

● Motor side



● Driver side



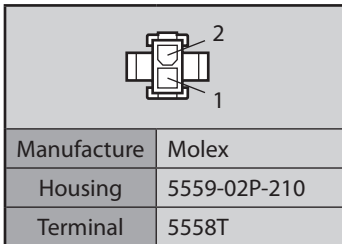
● Pin assignment

The extension cable and the flexible extension cable differ in the diameter of lead wires.

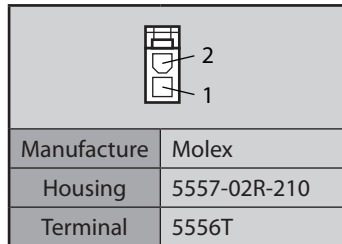
Pin No.	Color	Lead size	
		Extension cable	Flexible extension cable
1	Green	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
2	Black		
3	Red	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
4	White	AWG18 (0.75 mm <sup>2</sup> )	AWG19 (0.75 mm <sup>2</sup> )
5	Yellow	AWG24 (0.2 mm <sup>2</sup> )	AWG25 (0.2 mm <sup>2</sup> )
6	Brown		

● Cable for electromagnetic brake

● Motor side



● Driver side



● Pin assignment

The extension cable and the flexible extension cable differ in the diameter of lead wires.

Pin No.	Color	Lead size	
		Extension cable	Flexible extension cable
1	White	AWG20 (0.5 mm <sup>2</sup> )	AWG21 (0.5 mm <sup>2</sup> )
2	Black		

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