

## Transition to made-to-order production and production discontinuation of the CC-Link Positioning Modules

**■Date of Issue**

December 2018

**■Relevant Models**

AJ65BT-D75P2-S3, A1SD75-C01H, A1SD75-C01HA

Thank you for your continued support of Mitsubishi Electric programmable controllers.

Production of the following CC-Link positioning modules and related products (conversion cables for connection with peripherals) will be discontinued.

### 1 Models to be discontinued

Models to be discontinued		Alternative models		Remarks
Product	Model	Product	Model	
CC-Link positioning module	AJ65BT-D75P2-S3	MELSEC iQ-F series FX5UC CPU module (positioning function)	<ul style="list-style-type: none"> <li>• FX5UC-32MT/D</li> <li>• FX5-CCL-MS</li> <li>• FX5-CNV-IFC</li> </ul>	Select a module from the following according to the positioning function. <ul style="list-style-type: none"> <li>• CPU module (positioning function)</li> <li>• Positioning module (open collector output, differential driver output)</li> </ul> When connecting MELSEC iQ-F series products to the CC-Link network, use the CC-Link system master/intelligent device module.
		MELSEC iQ-F series FX5U CPU module (positioning function)	<ul style="list-style-type: none"> <li>• FX5U-32MT/DS</li> <li>• FX5-CCL-MS</li> </ul>	
		MELSEC iQ-F series positioning module (open collector output)	<ul style="list-style-type: none"> <li>• FX5-20PG-P</li> <li>• FX5UC-32MT/D</li> <li>• FX5-CCL-MS</li> <li>• FX5-CNV-IFC</li> </ul>	
		MELSEC iQ-F series positioning module (differential driver output)	<ul style="list-style-type: none"> <li>• FX5-20PG-D</li> <li>• FX5UC-32MT/D</li> <li>• FX5-CCL-MS</li> <li>• FX5-CNV-IFC</li> </ul>	
Conversion cables for connection with peripherals	<ul style="list-style-type: none"> <li>• A1SD75-C01H</li> <li>• A1SD75-C01HA</li> </ul>	None		Special cable for AJ65BT-D75P2-S3

### 2 Schedule

- Transition to made-to-order: March 31, 2019
- Order acceptance: Through February 15, 2021
- Production discontinuation: March 31, 2021

### 3 Reason for discontinuation

Some main parts of the above products are now obsolete, and we will have difficulty to maintain our production system.

### 4 Repair support

Repair support period: Until March 31, 2028 (for seven years after the discontinuation of production)

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## 5 Recommendable proposals

The delivery time for the made-to-order production is 3.5 months.

Please allow for this time and purchase the models to be discontinued early enough.

For detailed delivery schedule, please contact a Mitsubishi Electric branch office or agency.

## 6 Comparison of specifications for the discontinued and alternative models

### 6.1 FX5UC-32MT/D, FX5U-32MT/DS

Model to be discontinued		Alternative models
Product	Model	
CC-Link positioning module	AJ65BT-D75P2-S3	<ul style="list-style-type: none"> <li>• FX5UC-32MT/D (FX5UC CPU module)</li> <li>• FX5-CCL-MS (CC-Link system master/intelligent device module)</li> <li>• FX5-CNV-IFC (connector conversion module)</li> </ul>
		<ul style="list-style-type: none"> <li>• FX5U-32MT/DS (FX5U CPU module)</li> <li>• FX5-CCL-MS (CC-Link system master/intelligent device module)</li> </ul>

### Performance specifications

○: Compatible, △: Check required, ×: Incompatible

Item	AJ65BT-D75P2-S3	FX5UC-32MT/D, FX5U-32MT/DS	Compatibility
No. of control axes	2 axes	<ul style="list-style-type: none"> <li>■CW/CCW mode 2 axes</li> <li>■PULSE/SIGN mode 4 axes</li> </ul>	○
Interpolation function	2-axis direct interpolation	Simple linear interpolation operation by 2-axis simultaneous start	△
	2-axis circular interpolation	None	×
Control method	PTP (Point To Point) control	PTP (Point To Point) control	○
	Speed control	Speed control	○
	Speed/position changeover control	Interrupt 1-speed positioning	△
	Path control (Both line and arc can be set.)	None	×
Control unit	mm, inch, degree, pulse	mm, inch, degree, pulse	○
Positioning data	600 data/axis setting possible	Table operation (can be set in GX Works3.) 100 data/axis	△
Backup	Parameters and positioning data can be saved to flash ROM.	Parameters and positioning data can be saved to flash ROM.	○

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Item		AJ65BT-D75P2-S3	FX5UC-32MT/D, FX5U-32MT/DS	Compati bility
Positioning	Positioning range (Normal mode)	<ul style="list-style-type: none"> <li>■Absolute method</li> <li>• -214748364.8 to 214748364.7 (μm)</li> <li>• -21474.83648 to 21474.83647 (inch)</li> <li>• 0 to 359.99999 (degree)</li> <li>• -2147483648 to 2147483647 (pulse)</li> </ul>	<ul style="list-style-type: none"> <li>■Absolute method</li> <li>• -2147483648 to 2147483647 (μm)</li> <li>• -2147483648 to 2147483647 (0.0001 inch)</li> <li>• -2147483648 to 2147483647 (mdegree)</li> <li>• -2147483648 to 2147483647 (pulse)</li> </ul>	○
		<ul style="list-style-type: none"> <li>■Incremental method</li> <li>• -214748364.8 to 214748364.7 (μm)</li> <li>• -21474.83648 to 21474.83647 (inch)</li> <li>• -21474.83648 to 21474.83647 (degree)</li> <li>• -2147483648 to 2147483647 (pulse)</li> </ul>	<ul style="list-style-type: none"> <li>■Incremental method</li> <li>• -2147483648 to 2147483647 (μm)</li> <li>• -2147483648 to 2147483647 (0.0001 inch)</li> <li>• -2147483648 to 2147483647 (mdegree)</li> <li>• -2147483648 to 2147483647 (pulse)</li> </ul>	○
	Speed command	<ul style="list-style-type: none"> <li>• 0.01 to 6000000.00 (mm/min)</li> <li>• 0.001 to 600000.000 (inch/min)</li> <li>• 0.001 to 600000.000 (degree/min)</li> <li>• 1 to 1000000 (pulse/s)</li> </ul>	<ul style="list-style-type: none"> <li>• 1 to 2147483647 (cm/min)</li> <li>• 1 to 2147483647 (inch/min)</li> <li>• 1 to 2147483647 (10 degree/min)</li> <li>• 1 to 200000 (pulse/s)</li> </ul>	△
	Acceleration/ deceleration process	Automatic trapezoidal acceleration/deceleration	Automatic trapezoidal acceleration/deceleration	○
		S-curve acceleration/deceleration	None	×
	Acceleration/ deceleration time	Acceleration/deceleration time can be changed. Four patterns each can be set for acceleration time and deceleration time. ■Setting range 1 to 65535 (ms), 1 to 8388608 (ms)	Acceleration/deceleration time can be changed. ■Setting range 0 to 32767 (ms)	△
	Sudden stop deceleration time	Can be changed.	None	×
Start time	20ms or less (excluding link scan time)	<ul style="list-style-type: none"> <li>■When using an external start signal 50μs or less</li> <li>■Interpolation Operation 300μs or less</li> </ul>	○	
Positioning function external connection	Max. output pulse	<ul style="list-style-type: none"> <li>■When connected to differential driver 400kpps</li> <li>■When connected to open collector 200kpps</li> </ul>	<ul style="list-style-type: none"> <li>■When connected to differential driver Not supported</li> <li>■When connected to open collector 200kpps</li> </ul>	×
	Max. connection distance between servos	<ul style="list-style-type: none"> <li>■When connected to differential driver 10m</li> <li>■When connected to open collector 2m</li> </ul>	<ul style="list-style-type: none"> <li>■When connected to differential driver Not supported</li> <li>■When connected to open collector According to the electrical characteristics of input/output signal</li> </ul>	△
CC-Link	CC-Link station type	Intelligent device station	Intelligent device station	○
	Number of occupied stations	4 stations (RX/Ry: 128 points each, RWr/RWw: 16 points each)	1 to 4 stations (selectable)	○
	Applicable crimping terminal	RAV1.25-3.5, RAV2-3.5 (bare crimp terminal) M3.5 terminal screw	<ul style="list-style-type: none"> <li>• FV1.25-B3A (bare crimp spade terminal) M3 terminal screw</li> <li>• FV2-MS3 (bare crimp ring terminal) M3 terminal screw</li> </ul>	○
Module mounting	<ul style="list-style-type: none"> <li>• Mounting using a DIN rail</li> <li>• Direct mounting (screw: M4×0.7mm, length of 16mm or more)</li> </ul>	<ul style="list-style-type: none"> <li>• Mounting using a DIN rail</li> <li>• Direct mounting (screw: M4)<sup>*1</sup></li> </ul>	×	
Applicable DIN rail	TH35-7.5Fe, TH35-7.5Al, TH35-15Fe (compliant with JIS C 2812)	DIN46277 (35mm width)	○	
Flash ROM write count	Maximum 100,000 times	Maximum 20,000 times	△	
Dielectric withstand voltage	500VAC for 1 minute across power supply/ communication system and external input/output	500VAC for 1 minute across power supply and external input/output	○	
Insulation resistance	10MΩ or higher at 500VDC insulation resistance tester across power supply/communication system and external input/output	10MΩ or higher at 500VDC insulation resistance tester	○	

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Item		AJ65BT-D75P2-S3	FX5UC-32MT/D, FX5U-32MT/DS	Compati bility
External power supply	External power supply	24VDC (20.4 to 26.4VDC)	<ul style="list-style-type: none"> <li>■FX5UC-32MT/D 30W/24VDC (20%, -15%) (20.4 to 28.8VDC)</li> <li>■FX5U-32MT/DS 30W/24VDC (20%, -30%) (16.8 to 28.8VDC)</li> </ul>	△
	Internal current consumption (24VDC)	0.30A		

\*1 Only when using FX5U-32MT/DS

External wiring

Item		AJ65BT-D75P2-S3	FX5UC-32MT/D	FX5U-32MT/DS
Positioning function external connection	External device connector	<ul style="list-style-type: none"> <li>• 10136-3000VE (soldered type, accessory)</li> <li>• 10136-6000EL (crimp type, sold separately)</li> </ul>	Use a 20-pin socket (single in line) compliant with MIL-C-83503. ■Certified connectors <ul style="list-style-type: none"> <li>• HU-200S2-001 (housing)</li> <li>• HU-411S, HU-411SA (crimp contact)</li> <li>• FRC2-A020-30S (crimp connector)</li> </ul>	<ul style="list-style-type: none"> <li>• FV1.25-B3A (bare crimp spade terminal) M3 terminal screw</li> <li>• FV-MS3 (bare crimp ring terminal) M3 terminal screw</li> </ul>
	Applicable wire size	■10136-3000VE Approx. 0.05 to 0.2mm <sup>2</sup> (30 to 24 AWG) ■10136-6000EL Approx. 0.08mm <sup>2</sup> (28 AWG)	■HU-200S2-001 or HU-411S 0.3mm <sup>2</sup> (22 AWG) ■HU-200S2-001 or HU-411SA 0.5mm <sup>2</sup> (20 AWG) ■FRC2-A020-30S 0.1mm <sup>2</sup> (28 AWG)	■FV1.25-B3A Approx. 0.3 to 1.3mm <sup>2</sup> (22 to 16 AWG) ■FV-MS3 Approx. 1.3 to 2.1mm <sup>2</sup> (16 to 14 AWG)
External power supply (24VDC)	Applicable crimping terminal	RAV1.25-3.5, RAV2-3.5 (bare crimp terminal) M3.5 terminal screw	For the FRC2-A020-30S provided as an accessory, use the power supply cable. (connection with connectors)	<ul style="list-style-type: none"> <li>• FV1.25-B3A (bare crimp spade terminal) M3 terminal screw</li> <li>• FV-MS3 (bare crimp ring terminal) M3 terminal screw</li> </ul>
	Applicable conductor size	0.75 to 2.00mm <sup>2</sup>		■FV1.25-B3A Approx. 0.3 to 1.3mm <sup>2</sup> (22 to 16 AWG) ■FV-MS3 Approx. 1.3 to 2.1mm <sup>2</sup> (16 to 14 AWG)

**Functions**

○: Compatible, △: Check required, ×: Incompatible

Item		AJ65BT-D75P2-S3	FX5UC-32MT/D, FX5U-32MT/DS	Compatibility	
Main functions	Zero point return control method	Machine zero point return control	Near-point dog method	Near-point dog method	○
			Stopper stop method 1	None	×
			Stopper stop method 2	Available by program.	△
			Stopper stop method 3		
			Count method 1		
			Count method 2		
		High-speed zero point return control	High-speed zero point return control	○	
	Data setting method zero point return control	None	×		
	Main positioning control	Speed control	Speed control	○	
		Linear control (1-axis, 2-axis interpolation)	Linear control (1-axis, simple interpolation)	△	
		Fixed feed control (1-axis, 2-axis)	Fixed feed control (1-axis only)	△	
		2-axis circular interpolation control	None	×	
		Speed/position changeover control	None	×	
	Advanced positioning control	Simultaneous start	Simultaneous start	○	
		Block start (normal start)	Available by program.	△	
		Conditional start			
		Wait start			
		Repeated start (FOR loop, FOR condition)			
	Stop				
	Manual control	JOG operation	JOG operation	○	
Manual pulse generator operation: 2 units (1 unit/axis)		None	×		
Other control	JUMP command	JUMP command	○		
	Current value change	HCMOV/DHCMOV command	○		
Operation pattern	Independent positioning control (positioning complete)	Independent positioning control (positioning complete)	○		
	Continuous positioning control	Continuous positioning control	○		
	Continuous path control	None	×		
Auxiliary functions	Machine zero point return	Zero point return retry function	Dog search function	△	
		Zero point shift function	OPR zero signal count	○	
	Control compensation	Electronic gear function	Electronic gear function	○	
		Backlash compensation function	Available by program.	△	
		Near pass mode function	None	×	
	Functions to limit the control	Speed limit function	Speed limit function	○	
		Hardware stroke limit function	Forward limit and reverse limit	△	
		Torque limit function	None	×	
		Software stroke limit function	None	×	
	Functions to change the control details	Speed change function	Speed change function	○	
		Override function	Available by program.	△	
		Acceleration/deceleration time change function	None	×	
		Torque change function	None	×	
	Absolute position restoration function	Available	ABS/DABS command	○	

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**Precautions at replacement**

This section describes precautions when replacing with alternative models.

**■ Wiring**

- The applicable wire size and connection method differ.
- The mounting method and external wiring differ by module. (Mounting using a DIN rail, direct mounting, wiring using connectors, etc.)
- The current consumption of the external power supply (24VDC) differs.

**■ Positioning function**

- Stopper stop method 1 for data setting method zero point return control and machine zero point return control is not available. Please change the operation to high-speed zero point return control or machine zero point return control other than stopper stop method 1.
- Sudden stop deceleration time cannot be changed.
- The setting range of the acceleration/deceleration time becomes smaller. Operation may differ with the same function. Ensure that it does not cause any problems in the system.
- Positioning start time becomes shorter. Ensure that it does not cause any problems in the system.
- Path control is not available.
- Only the simple linear interpolation function is available for the interpolation function.

**■ Limit function**

The alternative models do not have the following limit functions.

- Torque limit function
- Software stroke limit function

**■ Operation when a CC-Link communication error occurs**

When a communication error occurs during positioning control operation, the operation differs.

Product	Stop/continuation of positioning control
AJ65BT-D75P2-S3	Stop
FX5UC-32MT/D, FX5U-32MT/DS	Continuation

When a communication error occurs in FX5UC-32MT/D or FX5U-32MT/DS, use the program to stop the positioning control.



When replacing the model with an alternative one, please contact a Mitsubishi Electric branch office or agency.

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## 6.2 FX5-20PG-P, FX5-20PG-D

Model to be discontinued		Alternative models
Product	Model	
CC-Link positioning module	AJ65BT-D75P2-S3	<ul style="list-style-type: none"> <li>• FX5-20PG-P (positioning module (open collector output))</li> <li>• FX5UC-32MT/D (FX5UC CPU module)</li> <li>• FX5-CCL-MS (CC-Link system master/intelligent device module)</li> <li>• FX5-CNV-IFC (connector conversion module)</li> </ul>
		<ul style="list-style-type: none"> <li>• FX5-20PG-D (positioning module (differential driver output))</li> <li>• FX5UC-32MT/D (FX5UC CPU module)</li> <li>• FX5-CCL-MS (CC-Link system master/intelligent device module)</li> <li>• FX5-CNV-IFC (connector conversion module)</li> </ul>

### Performance specifications

○: Compatible, △: Check required, ×: Incompatible

Item	AJ65BT-D75P2-S3	FX5-20PG-P, FX5-20PG-D	Compatibility	
No. of control axes	2 axes	2 axes	○	
Interpolation function	2-axis direct interpolation	2-axis direct interpolation	○	
	2-axis circular interpolation	2-axis circular interpolation	○	
Control method	PTP (Point To Point) control	PTP (Point To Point) control	○	
	Speed control	Speed control	○	
	Speed/position changeover control	Speed/position changeover control	○	
	Path control (Line and arc can be set.)	Path control (Line and arc can be set.)	○	
Control unit	mm, inch, degree, pulse	mm, inch, degree, pulse	○	
Positioning data	600 data/axis setting possible	600 data/axis setting possible	○	
Backup	Parameters and positioning data can be saved to flash ROM.	Parameters and positioning data can be saved to flash ROM.	○	
Positioning	Positioning range (normal mode)	<b>■Absolute method</b> • -214748364.8 to 214748364.7 (μm) • -21474.83648 to 21474.83647 (inch) • 0 to 359.99999 (degree) • -2147483648 to 2147483647 (pulse)	<b>■Absolute method</b> • -214748364.8 to 214748364.7 (μm) • -21474.83648 to 21474.83647 (inch) • 0 to 359.99999 (degree) • -2147483648 to 2147483647 (pulse)	○
		<b>■Incremental method</b> • -214748364.8 to 214748364.7 (μm) • -21474.83648 to 21474.83647 (inch) • -21474.83648 to 21474.83647 (degree) • -2147483648 to 2147483647 (pulse)	<b>■Incremental method</b> • -214748364.8 to 214748364.7 (μm) • -21474.83648 to 21474.83647 (inch) • -21474.83648 to 21474.83647 (degree) • -2147483648 to 2147483647 (pulse)	○
	Speed command	• 0.01 to 6000000.00 (mm/min) • 0.001 to 600000.000 (inch/min) • 0.001 to 600000.000 (degree/min) • 1 to 1000000 (pulse/s)	• 0.01 to 20000000.00 (mm/min) • 0.001 to 2000000.000 (inch/min) • 0.001 to 3000000.000 (degree/min) • 1 to 5000000 (pulse/s)	○
Acceleration/ deceleration process	Automatic trapezoidal acceleration/ deceleration	Automatic trapezoidal acceleration/ deceleration	○	
	S-curve acceleration/deceleration	S-curve acceleration/deceleration	○	
Acceleration/ deceleration time	Acceleration/deceleration time can be changed. Four patterns each can be set for acceleration time and deceleration time. <b>■Setting range</b> 1 to 65535 (ms), 1 to 8388608 (ms)	Acceleration/deceleration time can be changed. Four patterns can be set each for acceleration time and deceleration time. <b>■Setting range</b> 1 to 8388608 (ms)	○	
Sudden stop deceleration time	Can be changed.	Can be changed.	○	
Start time	20ms or less (excluding link scan time)	0.83ms or less	○	

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Item		AJ65BT-D75P2-S3	FX5-20PG-P, FX5-20PG-D	Compatibility
Positioning function external connection	Max. output pulse	<ul style="list-style-type: none"> <li>■When connected to differential driver 400kpps</li> <li>■When connected to open collector 200kpps</li> </ul>	<ul style="list-style-type: none"> <li>■When connected to differential driver (FX5-20PG-D) 5Mpps</li> <li>■When connected to open collector (FX5-20PG-P) 200kpps</li> </ul>	○
	Max. connection distance between servos	<ul style="list-style-type: none"> <li>■When connected to differential driver 10m</li> <li>■When connected to open collector 2m</li> </ul>	<ul style="list-style-type: none"> <li>■When connected to differential driver (FX5-20PG-D) 10m</li> <li>■When connected to open collector (FX5-20PG-P) 2m</li> </ul>	○
CC-Link	CC-Link station type	Intelligent device station	Intelligent device station	○
	Number of occupied stations	4 stations (RX/Ry: 128 points each, RWr/RWw: 16 points each)	1 to 4 stations (selectable)	○
	Applicable crimping terminal	RAV1.25-3.5, RAV2-3.5 (bare crimp terminal) M3.5 terminal screw	<ul style="list-style-type: none"> <li>• FV1.25-B3A (bare crimp spade terminal) M3 terminal screw</li> <li>• FV2-MS3 (bare crimp ring terminal) M3 terminal screw</li> </ul>	○
Module mounting	<ul style="list-style-type: none"> <li>• Mounting using a DIN rail</li> <li>• Direct mounting (screw: M4×0.7mm, length of 16mm or more)</li> </ul>	<ul style="list-style-type: none"> <li>• Mounting using a DIN rail</li> <li>• Direct mounting (screw: M4)</li> </ul>	○	
Applicable DIN rail	TH35-7.5Fe, TH35-7.5Al, TH35-15Fe (compliant with JIS C 2812)	DIN46277 (35mm width)	○	
Flash ROM write count	Maximum 100,000 times	Maximum 100,000 times	○	
Dielectric withstand voltage	500VAC for 1 minute across power supply/ communication system and external input/ output	500VAC for 1 minute between all terminals and ground terminal	○	
Insulation resistance	10MΩ or higher at 500VDC insulation resistance tester across power supply/ communication system and external input/ output	10MΩ or higher at 500VDC insulation resistance tester	○	
External power supply	External power supply	24VDC (20.4 to 26.4VDC)	24VDC (20.4 to 28.8VDC)	△
	Internal current consumption (24VDC)	0.30A	<ul style="list-style-type: none"> <li>■FX5-20PG-P 120mA<sup>*1</sup></li> <li>■FX5-20PG-D 165mA<sup>*1</sup></li> </ul>	△

\*1 The current consumption of the external power supply is the total of that of the provided modules and peripherals. For the current consumption of the modules that the system configured of, refer to the manuals for each module.

External wiring

Item		AJ65BT-D75P2-S3	FX5-20PG-P, FX5-20PG-D
Positioning function external connection	External device connector	<ul style="list-style-type: none"> <li>• 10136-3000VE (soldered type, accessory)</li> <li>• 10136-6000EL (crimp type, sold separately)</li> </ul>	A6CON1, A6CON2, A6CON4 (sold separately)
	Applicable wire size	<ul style="list-style-type: none"> <li>■10136-3000VE Approx. 0.05 to 0.2mm<sup>2</sup> (30 to 24 AWG)</li> <li>■10136-6000EL Approx. 0.08mm<sup>2</sup> (28 AWG)</li> </ul>	<ul style="list-style-type: none"> <li>■A6CON1 or A6CON4 0.088 to 0.3mm<sup>2</sup> (28 to 22 AWG) stranded wire</li> <li>■A6CON2 0.088 to 0.24mm<sup>2</sup> (28 to 24 AWG) stranded wire</li> </ul>
External power supply (24VDC)	Applicable crimping terminal	RAV1.25-3.5, RAV2-3.5 (bare crimp terminal) M3.5 terminal screw	Use the power supply cable provided as an accessory. (connection with connectors)
	Applicable conductor size	0.75 to 2.00mm <sup>2</sup>	



**Functions**

○: Compatible, △: Check required, ×: Incompatible

Item		AJ65BT-D75P2-S3	FX5-20PG-P, FX5-20PG-D	Compatibility	
Main functions	Zero point return control method	Machine zero point return control	Near-point dog method	Near-point dog method	○
			Stopper stop method 1	Stopper stop method 1	○
			Stopper stop method 2	Stopper stop method 2	○
			Stopper stop method 3	Stopper stop method 3	○
			Count method 1	Count method 1	○
			Count method 2	Count method 2	○
		High-speed zero point return control	High-speed zero point return control	○	
	Data setting method zero point return control	Data setting method zero point return control	○		
	Main positioning control	Speed control	Speed control	○	
		Linear control (1-axis, 2-axis interpolation)	Linear control (1-axis, 2-axis interpolation)	○	
		Fixed feed control (1-axis, 2-axis)	Fixed feed control (1-axis, 2-axis)	○	
		2-axis circular interpolation control	2-axis circular interpolation control	○	
		Speed/position changeover control	Speed/position changeover control	○	
	Advanced positioning control	Simultaneous start	Simultaneous start	○	
		Block start (normal start)	Block start (normal start)	○	
		Conditional start	Conditional start	○	
		Wait start	Wait start	○	
		Repeated start	Repeated start	○	
	Manual control	Stop	Available by program.	△	
		JOG operation	JOG operation	○	
	Other control	Manual pulse generator operation: 2 units (1 unit/axis)	Manual pulse generator operation: 1 unit	△	
		JUMP command	JUMP command	○	
	Operation pattern	Current value change	Current value change using the HCMOV/DHMOV command	○	
Independent positioning control (positioning complete)		Independent positioning control (positioning complete)	○		
Continuous positioning control		Continuous positioning control	○		
Auxiliary functions	Machine zero point return	Continuous path control	Continuous path control	○	
		Zero point return retry function	Zero point return retry function	○	
	Control compensation	Zero point shift function	Zero point shift function	○	
		Electronic gear function	Electronic gear function	○	
		Backlash compensation function	Backlash compensation function	○	
	Functions to limit the control	Near pass mode function	Near pass mode function	○	
		Speed limit function	Speed limit function	○	
		Hardware stroke limit function	Hardware stroke limit function	○	
		Torque limit function	Torque limit function	○	
	Functions to change the control details	Software stroke limit function	Software stroke limit function	○	
		Speed change function	Speed change function	○	
		Override function	Override function	○	
		Acceleration/deceleration time change function	Acceleration/deceleration time change function	○	
Absolute position restoration function	Torque change function	Torque change function	○		
	Available	Available	○		

FA-A-0271-A

### Precautions at replacement

This section describes precautions when replacing with alternative models.

#### ■ Wiring

- The applicable wire size and connection method differ.
- The mounting method and external wiring differ by module. (Mounting using a DIN rail, wiring using connectors, etc)
- The current consumption of the external power supply (24VDC) differs.

#### ■ Positioning function

Positioning start time becomes shorter. Ensure that it does not cause any problems in the system.

#### ■ Operation when a CC-Link communication error occurs

When a communication error occurs during positioning control operation, the operation differs.

Product	Stop/continuation of positioning control
AJ65BT-D75P2-S3	Stop
FX5-20PG-P, FX5-20PG-D	Continuation

When a communication error occurs in FX5-20PG-P or FX5-20PG-D, use the program to stop the positioning control.



When replacing the model with an alternative one, please contact a Mitsubishi Electric branch office or agency.

### REVISIONS

Version	Date of issue	Revision
A	December 2018	First edition

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