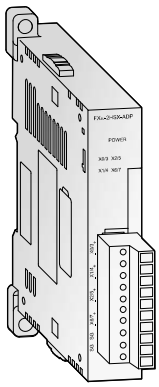
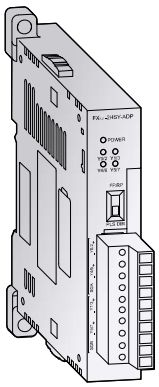
■ High-speed counter adapters

☐ FX3S ☐ FX3G ☐ FX3GC ☐ FX3GE ☑ FX3U ☐ FX3UC ☐ FX5U ☐ FX5UC



FX3U-4HSX-ADP



FX3U-2HSY-ADP

These adapter modules allow direct processing of positioning application data.

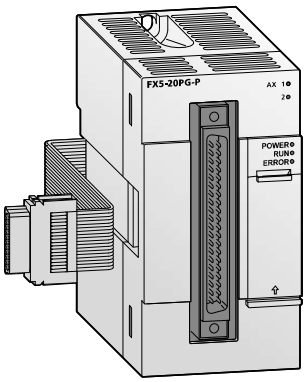
The FX3U-4HSX-ADP provide high-speed counter inputs up to 200 kHz while the FX3U-2HSY-ADP delivers 2 channels of pulse train outputs up to 200 kHz.

Specifications			FX3U-4HSX-ADP	FX3U-2HSY-ADP
Maximum connectivity			2	
Counter	Inputs		4	—
	Outputs		—	2
Max. counting frequency	Inputs	kHz	1 ch 1 input or 1 ch 2 inputs: 200 2 ch 2 inputs: 100	—
	Outputs	kHz	—	200
Input format			Differential line receiver (AM26C32 is suitable) Photocoupler isolation on inputs	—
Output format			—	Differential line driver (AM26C31 is suitable) Normal rotation pulse train, reverse pulse train or pulse train + direction signal
Maximum cable length		m	10	
Input potential			5 V DC	—
Output load			—	less than 25 mA
Power supply	5 V DC		30 mA (from base unit)	
	24 V DC		30 mA (from base unit)	60 mA (from base unit)
Related I/O points			0	
Weight		kg	0.08	
Dimensions (WxHxD)		mm	17.6x90(106)x89.5	
Order information		Art. no.	165274	165275

Note: The adapters FX3U-☐-ADP can only be used with the FX3U and they require a function extension board.

■ Single-axis positioning modules

☐ FX3S ☐ FX3G ☐ FX3GC ☐ FX3GE ☑ FX3U ☑ FX3UC ☑ FX5U ☑ FX5UC



The positioning modules FX3U-1PG, FX2N-10PG and FX5-20PG-P/D are extremely efficient positioning modules for controlling either step drives or servo drives (by external regulator) with a pulse chain. The FX5-20PG-D is a differential driver type with a maximum output pulse of 5 M pulse/s.

They are very suitable for achieving accurate positioning in combination with the MELSEC FX series.

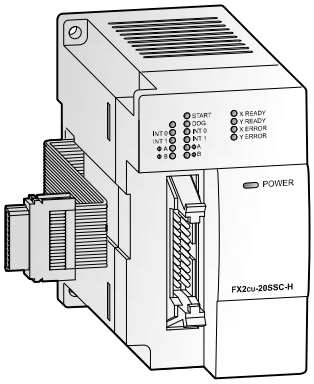
The configuration and allocation of the position data are carried out directly via the PLC program. A very wide range of manual and automatic functions are available to the user.

Specifications			FX3U-1PG	FX2N-10PG	FX5-20PG-D	FX5-20PG-P
Applicable for			Base units FX3U/FX3UC/ FX5U/FX5UC	Base units FX3U/FX3UC	Base units FX5U/FX5UC	
Accessible axes			1		2	
Output frequency		Pulses/s	10–200 000	1–1 000 000	5 000 000	1–200 000
Signal level for digital inputs			24 V DC/40 mA	5 V DC/100 mA; 24 V DC/70 mA	5 V DC; 24 V DC	24 V DC/5 mA
Power supply	5 V DC		150 mA (from base unit)	120 mA (from base unit)	—	
	24 V DC		—		165 mA (external power supply)	120 mA (from base unit)
Related I/O points			8			
Weight		kg	0.3	0.2		
Dimensions (WxHxD)		mm	43x90x87		50x90x83	
Order information		Art. no.	259298	140113	409825	312301

Note: For the connection of a FX3U-1PG to a FX5U/FX5UC base unit, a bus conversion module FX5-CNV-BUSC resp. FX5-CNV-BUS is required.

■ Positioning module for SSCNET III

☐ FX3S ☐ FX3G ☐ FX3GC ☐ FX3GE ☑ FX3U ☑ FX3UC ☐ FX5U ☐ FX5UC



The SSCNET III module FX3U-20SSC-H can be used in combination with a FX3U or FX3UC programmable controller to achieve a cost effective solution for high precision, high-speed positioning. The plug-and-play fiber optic SSCNET III cabling reduces setup time and increases control distance for positioning operations in a wide range of applications.

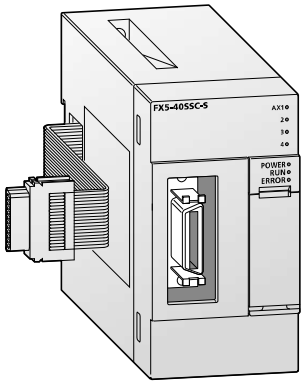
Servo parameters and positioning information for the FX3U-20SSC-H are easily set up with an FX3U/FX3UC base unit and a personal computer. For parameter setting, monitoring and testing the easy programming software FX Configurator-FP is available.

Specifications			FX3U-20SSC-H
Accessible axes			2 (independent or interpolation)
Output frequency			1 Hz to 50 MHz
Pulse output format			SSCNET III (servo bus)
Communications speed			50 Mbps
Starting time		ms	1.6 (+1.7 SSCNET III cycle time)
Max. to PLC connectable modules			Up to 8 can be connected to the FX3U PLC
Status displays			Power, module status, axis status, error
Power supply	5 V DC		100 mA
	24 V DC		—
Related I/O points			8
Weight		kg	0.3
Dimensions (WxHxD)		mm	55x90x87
Order information		Art. no.	231512

Notes: The FX3U-20SSC-H can be used in combination with a FX3U or FX3UC base unit only. Please refer to the Mitsubishi Electric MELSERVO catalog for suitable servo motors and amplifiers.

■ Simple Motion modules

☐ FX3S ☐ FX3G ☐ FX3GC ☐ FX3GE ☐ FX3U ☐ FX3UC ☑ FX5U ☑ FX5UC



The FX5-40SSC-S 4-axis and FX5-80SSC-S 8-axis Simple Motion modules complement the built-in positioning function of the FX5U or FX5UC* base unit. Similar to positioning modules, these Simple Motion modules are capable of a wide range of high-precision controls, such as positional control, advanced synchronous control, cam control and speed and torque control with setup of even complex motion control functions being done easily by parameters and programming.

The standard encoder signal interface and high-speed inputs for mark detection, for example, enable the system to be used in classical serial machines such as packaging and bottling lines or palletising systems without fitting additional optional modules. A function for automatically calculating the cam data, for example for a rotary cutter application, simply by entering the product length and the synchronization width is also included.

* For the connection to a FX5UC CPU module a connector conversion module FX5-CNV-IFC or an extension power supply module FX5-C1PS-5V is required.

Specifications			FX5-40SSC-S	FX5-80SSC-S
Number of controllable axes			4	8
Interpolation functions			Linear interpolation for up to 4 axes, circular interpolation for 2 axes	
Control system			PTP (point to point) control, trajectory control (both linear and arc), speed control, speed-position switching control, position-speed switching control, speed-torque control	
Mark detection function			Regular mode, specified number of detections mode, ring buffer mode; Mark detection signal: up to 4 points, mark detection setting: 16 settings	
Servo amplifier connection method			SSCNET III/H	
Servo amplifier			MR-JE-B/MR-J4-B/MR-J4W2-B/MR-J4W3-B servo amplifier range	
Operation cycle			1.77 ms	
Power supply	5 V DC		—	
	24 V DC		250 mA	
Related I/O points			8	
Weight		kg	0.3	
Dimensions (WxHxD)		mm	50x90x83	
Order information		Art. no.	281405	304187