
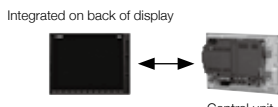


# CNC System M800/M80 Series Specifications

• Standard ♦ Optional


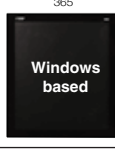


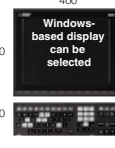







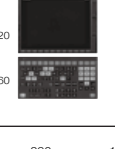
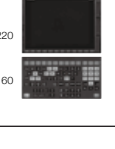
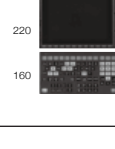
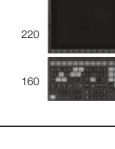
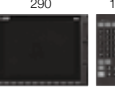

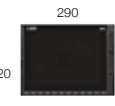
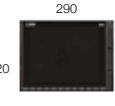


Type		Lathe and Machining Systems							Description	
Model Name		M800W Series		M800S Series		M80W Series	M80 Series			
		M850W	M830W	M850S	M830S		TypeA	TypeB		
<b>1. Control Axes</b>										
1	Number of Basic Control Axes (NC axes)	Lathe	● 2	● 2	● 2	● 2	12	● 3	● 3	The NC axis, spindle, and PLC axis are generically called the control axis. The NC axis can be manually or automatically operated using a machining program. The PLC axis can be controlled using a sequence program. The number of axes that is within the max. number of control axes, and that does not exceed the max. number given for the NC axis, spindle and PLC axis, can be used
		Machining	● 3	● 3	● 3	● 3	11	● 3	● 3	
2	Max. Number of Axes (NC Axes + Spindles + PLC Axes)	Lathe	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	12	12	9	
		Machining	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	11	11	9	
1	Max. Number of NC Axes (In Total for all the Part Systems)	Lathe	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	● 16 ♦ 32	10	10	7	
		Machining	● 16	● 16	● 16	● 16	8	8	5	
2	Max. Number of Spindles	Lathe	8	8	8	8	4+ G/B (*1)	4	3	
		Machining	4	4	4	4	2	2	2	
3	Max. Number of PLC Axes	Lathe	8	8	8	8	6	6	6	
		Machining	8	8	8	8	6	6	6	
3	Max. Number of PLC Indexing Axes	Lathe	8	8	8	8	4	4	4	
4	Number of Simultaneous Contouring Control Axes	Lathe	8	4	8	4	4	4	4	
		Machining	8	4	8	4	4	4	4	
5	Max. Number of NC Axes in a Part System	Lathe	8	8	8	8	8	8	5	
		Machining	8	8	8	8	8	8	5	
<b>2. Control Part System</b>										
1	Standard Number of Part Systems	Lathe	1	1	1	1	1	1	1	One part system is the standard.
		Machining	1	1	1	1	1	1	1	
2	Max. Number of Part Systems	Lathe	● 4 ♦ 8	● 4 ♦ 8	● 4 ♦ 8	● 4 ♦ 8	4	● 3	● 2	Up to four part systems for a lathe system, and up to two part systems for a machining center system
		Machining	● 2	● 2	● 2	● 2	4	● 2	● 1	

## CNC System Hardware

Control Unit (mm)	
<b>M800W/M80W Series (Separated type)</b>  M800W: 90 x 180 x 380 (W x D x H) M80W: 60 x 180 x 380 (W x D x H)	<b>M800S/M80 Series (Integrated type)</b>  Integrated on back of display Control unit

## Controls

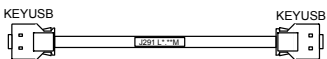
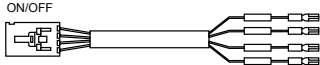
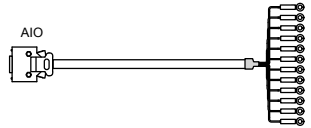

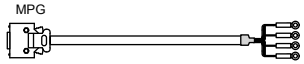




M800/M80	Description	Stocked Status
FCA830U-M	830 Control Mill type	S
FCA830U-L	830 Control Lathe type	-
FCA830H-4SM	830S Control - 10.4" LCD Mill	-
FCA830H-4SL	830S Control - 10.4" LCD Lathe	-
FCA830H-8SM	830S Control 15" LCD Mill	S
FCA830H-8SL	830S Control 15" LCD Lathe	-
FCA80U	M80W Control Unit	S
FCA80H-4A	M80 Control - 10.4" LCD A Type	S
FCA80H-4B	M80 Control - 10.4" LCD B Type	-
FCA80H-8A	M80 Control - 15" LCD A Type	S
FCA80H-8B	M80 Control 15" LCD B Type	-
FCA80P-2A	M80 Control 8.4" LCD A Type	-
FCA80P-2B	M80 Control 8.4" LCD B Type	-

Display	Stacked Item	Keyboard	Stacked Item	M800W Series	M80W Series	M800S Series	M80 Series	Description
19" Touchscreen FCU8-DU191-75 (M800W)*	S	-	-		-	-	-	*Need to also purchase FCU8-CF001-001 and FCU8-PC-231 Both items stock
19" Touchscreen FCU8-DU191-77 Vertical	S	-	-	-		-	-	
19" Touchscreen FCU8-DU191-77 Horizontal	-	-	-			-	-	
15" Touchscreen FCU8-DU181-34 (M800W)*	S	FCU8-KB08 Clear key	S					*Need to also purchase FCU8-CF001-001 and FCU8-PC-231 Both items stock
FCU8-DU181-31 (M800S)	-							
FCU8-DU181-36 (M800S)	S							
FCU8-DU181-32 (M80, M80W)	-   S							
10.4" Touchscreen FCU8-DU141-31 (M800S)	-	FCU8-KB047 Clear key	S					
FCU8-DU141-32 (M80, M80W)	-   S							
10.4" Touchscreen FCU8-DU141-31 (M800S)	-	FCU8-KB046 Clear key	-					
FCU8-DU141-32 (M80, M80W)	-   S							
8.4" Type FCU8-DU121-12 (M80, M80W)	-   -	FCU8-KB026 Clear key	-	-		-		





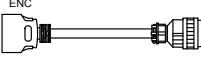
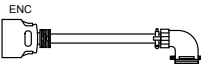
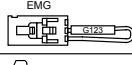
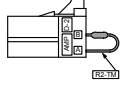
## List of Units

Classification	Model Number	Remarks	Supported Model				Stocked Item	
			M800W	M80W	M800S	M80		
<b>Operation Panel I/O Unit</b>								
DI 24V/0V Common Input	DO Source Output	<b>FCU8-DX830</b>	DI : 64-points 24V/0V common type DO: 64-points source type MPG : 3ch Remote I/O 2.0 I/F RIO occupied stations (fixed): 1, 2, 7-14 RIO extensible stations: 3-6, 15-64	X	X	-	-	-
		<b>FCU8-DX750</b>	DI : 96-points 24V/0V common type DO: 64-points source type MPG : 3ch Remote I/O 2.0 I/F RIO occupied stations (fixed): 1-3, 7-12 RIO extensible stations: 4-6,13-64	-	-	X	X	S
DI 24V/0V Common Input Safety DI 24V/0V Comm. Input	DO Source Output	<b>FCU8-DX837</b>	DI : 64-points 24V/0V common type DO: 64-points source type Safety DI : 8-points 0V common type MPG: 3ch Remote I/O 2.0 I/F RIO occupied stations (fixed): 1-4, 7-14 RIO extensible stations: 5, 6, 15-64	X	X	-	-	S
<b>Remote I/O Unit</b>								
DI 24V/0V Common Input	DO Source Output	<b>FCU8-DX220</b>	DI: 32-points 24V/0V common type DO: 32-points source type; Number of occupied stations: 1	X	X	X	X	S
		<b>FCU8-DX230</b>	DI: 64-points 24V/0V common type DO: 48-points source type; Number of occupied stations: 2	X	X	X	X	-
DI 24V/0V Common Input	DO Source Output AO Analog Output	<b>FCU8-DX231</b>	DI: 64-points 24V/0V common type DO: 48-points source type; AO: 1 point; Number of occupied stations: 2	X	X	X	X	S
DI 0V Common Input	DO Source Output (Large Capacity)	<b>FCU8-DX213</b>	DI: 16-points 0V common type; DO: 8-points source type; Number of occupied stations: 1	X	X	X	X	-
Safety DI 0V Common Input	Safety DO Source Output (Large Capacity)	<b>FCU8-DX654</b>	Safety DI : 8-points 0V common type; Safety DO : 4-points source type; Number of occupied stations : 2	X	X	X	X	S
DI 24V/0V Common Input Safety DI 0V Common Input	DO Source Output Safety Relay Output	<b>FCU8-DX651</b>	DI: 32-points 24V/0V common type DO: 32-points source type; Safety DI: 8-points 0V common type; Safety relay: 4-points (non-voltage contact); Relay contact welding detection; Number of occupied stations: 3	X	X	X	X	S
<b>Expansion Unit/Card</b>								
CC-Link Expansion Unit	<b>FCU8-EX561</b>	CC-Link × 1ch	X	X	X	X	S	
Option Relay Unit	<b>FCU8-EX702</b>	Option for 1ch	-	-	X	X	S	
<b>Side Memory I/F Unit</b>								
Side Memory I/F Unit	<b>FCU8-EP201-2</b>	SDHC I/F: 1ch USB2.0 I/F: 1ch; USB communication (between WN251 and personal computer) Unit lid (resin molded article), metal plate, etc. Exclusive for 19-type display unit	X	X	-	-	S	
<b>Manual Pulse Generator</b>								
5V Manual Pulse Generator	<b>UFO-01-2Z9</b>	Input DC5V 100 pulse/rev	X	X	X	X	-	
12V Manual Pulse Generator	<b>HD60C</b>	Input DC12V 25 pulse/rev	X	X	X	X	S	
<b>Encoder</b>								
Synchronous Feed Encoder	<b>OSE1024-3-15-68</b>	Input DC5V 1024 pulse/rev 6000 r/min, 68-square flange	-	-	X	X	-	
	<b>OSE1024-3-15-68-8</b>	Input DC5V 1024 pulse/rev 8000 r/min, 68-square flange	-	-	X	X	S	
	<b>OSE1024-3-15-160</b>	Input DC5V 1024 pulse/rev 6000 r/min, 160-square flange	-	-	X	X	-	

















DI: Digital input signals, DO: Digital output signals, AO: Analog output signals

Application	Model Number	Length (m)	Stocked Status	Description	Supported Model			
					M800W	M80W	M800S	M80
Connection Cable Between Personal Computer Unit and Operation Panel I/O Unit	J291 L0.15M	0.15	-		X	X	-	-
	J291 L0.5M	0.5	S					
	J291 L1.0M	1	-					
ON/OFF Switch Cable (ON/OFF Switch - Personal Computer Unit)	G170 L1M	1	-		X	X	-	-
	G170 L2M	2	-					
	G170 L3M	3	-					
	G170 L5M	5	S					
	G170 L10M	10	S					
	G170 L15M	15	-					
Analog Output Cable	J220 L1M	1	-		X	-	-	-
	J220 L2M	2	-					
	J220 L3M	3	-					
	J220 L5M	5	S					
	J220 L7M	7	-					
	J220 L10M	10	-					
	J220 L15M	15	-					
	J220 L20M	20	-					
Operation Panel I/O Interface Cable	J010 L0.5M (for 8.4" / 10.4" display)	0.5	S		-	X	X	X
	J010 L1M	1	S					
Manual Pulse Generator Cable (12V): 1ch	J020 L1M	1	-		X	X	X	X
	J020 L2M	2	S					
	J020 L3M	3	-					
	J020 L5M	5	S					
	J020 L7M	7	-					
	J020 L10M	10	-					
	J020 L15M	15	-					
	J020 L20M	20	-					
Manual Pulse Generator Cable (12V): 2ch	J022 L1M	1	-		X	X	X	X
	J022 L2M	2	-					
	J022 L3M	3	-					
	J022 L5M	5	-					
	J022 L7M	7	-					
	J022 L10M	10	-					
	J022 L15M	15	-					
	J022 L20M	20	-					
Manual Pulse Generator Cable (5V): 1ch	J023 L1M	1	-		X	X	X	X
	J023 L2M	2	S					
	J023 L3M	3	-					
	J023 L5M	5	S					
	J023 L7M	7	-					
	J023 L10M	10	-					
	J023 L15M	15	-					
Manual Pulse Generator Cable (5V): 2ch	J024 L1M	1	-		X	X	X	X
	J024 L2M	2	-					
	J024 L3M	3	-					
	J024 L5M	5	-					
	J024 L7M	7	-					
	J024 L10M	10	-					
	J024 L15M	15	-					
Manual Pulse Generator Cable (5V): 3ch	J025 L1M	1	-		X	X	X	X
	J025 L2M	2	-					
	J025 L3M	3	-					
	J025 L5M	5	-					
	J025 L7M	7	-					
	J025 L10M	10	-					
	J025 L15M	15	-					
J025 L20M	20	-						

Application	Model Number	Length (m)	Stocked Status	Description	Supported Model			
					M800W	M80W	M800S	M80
Manual Pulse Generator Cable (5V): 1ch (For Connection to Control Unit)	J026 L1M	1	-		X	X	X	X
	J026 L2M	2	-					
	J026 L3M	3	-					
	J026 L5M	5	-					
	J026 L7M	7	-					
	J026 L10M	10	-					
	J026 L15M	15	-					
Manual Pulse Generator Cable (5V): 2ch (For Connection to Control Unit)	J027 L1M	1	-		X	X	X	X
	J027 L2M	2	-					
	J027 L3M	3	-					
	J027 L5M	5	-					
	J027 L7M	7	-					
	J027 L10M	10	-					
	J027 L15M	15	-					
RS-232C I/F Cable: 1ch (For Control Unit)	J030 L1M	1	-		X	X	X	X
	J030 L2M	2	-					
	J030 L3M	3	-					
	J030 L5M	5	-					
	J030 L7M	7	-					
	J030 L10M	10	-					
RS-232C I/F Cable: 2ch (For Control Unit)	J031 L1M	1	-		X	X	X	X
	J031 L2M	2	-					
	J031 L3M	3	-					
	J031 L5M	5	-					
	J031 L7M	7	-					
	J031 L10M	10	-					
24VDC Power Cable	J070 L1M	1	S		X	X	X	X
	J070 L2M	2	-					
	J070 L3M	3	-					
	J070 L5M	5	S					
	J070 L7M	7	-					
	J070 L10M	10	-					
	J070 L15M	15	-					
	J071 L20M (for long distance)	20	-					
SKIP Input Cable	J100 L1M	1	-		X	X	X	X
	J100 L2M	2	-					
	J100 L3M	3	-					
	J100 L5M	5	S					
	J100 L7M	7	-					
	J100 L10M	10	-					
	J100 L15M	15	-					
	J100 L20M	20	-					
Emergency Stop Cable	J120 L1M	1	S		X	X	X	X
	J120 L2M	2	-					
	J120 L3M	3	-					
	J120 L5M	5	S					
	J120 L7M	7	-					
	J120 L10M	10	-					
	J120 L15M	15	-					
	J120 L20M	20	-					
	J120 L30M	30	-					
Remote I/O 2.0 Communication Cable	J210 L0.3M	0.3	-		X	X	X	X
	J210 L1M	1	S					
	J210 L2M	2	S					
	J210 L3M	3	-					
	J210 L5M	5	-					
	J210 L7M	7	-					
	J210 L10M	10	-					
	J210 L15M	15	-					
	J210 L20M	20	-					
	J210 L30M	30	-					
LAN Straight Cable	J303 L1M	1	-		X	X	X	X
	J303 L2M	2	S					
	J303 L3M	3	-					
	J303 L5M	5	S					
	J303 L7M	7	-					
	J303 L10M	10	-					
	J303 L15M	15	-					
	J303 L20M	20	-					
	J303 L30M	30	-					

Application	Model Number	Length (m)	Stocked Status	Description	Supported Model			
					M800W	M80W	M800S	M80
DI/DO Cable (Connectors at Both Ends)	J350 L1M	1	-		X	X	X	X
	J350 L2M	2	S					
	J350 L3M	3	-					
	J350 L5M	5	-					
DI/DO Cable (Connector at One End)	J351	3	-		X	X	X	X
DI/DO Cable (Connectors at Both Ends) (For Operation Panel I/O Unit)	J460 L1M	1	-		X	X	X	X
	J460 L2M	2	S					
	J460 L3M	3	-					
	J460 L5M	5	-					
DI/DO Cable (Connector at One End) (For Operation Panel I/O Unit)	J461	3	-		X	X	X	X
Synchronous Encoder – Control Unit (Straight, With Connector)	FCUA-R050-5M	5	-		-	X	X	X
Synchronous Encoder – Control Unit (Right Angle, With Connector)	FCUA-R054-3M	3	-		-	-	X	X
	FCUA-R054-5M	5	-					
	FCUA-R054-10M	10	-					
	FCUA-R054-15M	15	-					
	FCUA-R054-20M	20	-					
Cable For Emergency Stop Release	G123	-	-		X	X	X	X
Terminator For Remote I/O Interface	R2-TM	-	S	 <p>One terminator is required to be installed at the final end of remote IO unit.</p>	X	X	X	X

## Cable Connector Sets

Application	Model Number	Stocked Status	Description	Supported Model			
				M800W	M80W	M800S	M80
General I/O Units (For ENC, SKIP, SIO, MPG)	FCUA-CS000	-	Connector (3M) 10120-3000PE x 2pcs.  Shell kit (3M) 1Q320-52F0-008 x 2pcs. 	X	X	X	X
Emergency Stop Connector (For EMG)	50-57-9403 16-02-0103* 3pcs.	-	Connector (MOLEX) 50-57-9403 x 1pc.  Gold contact (MOLEX) 16-02-0103 x 3pcs. 	X	X	X	X
Connector Kit For RIO2.0 Unit	1-1318119-3* 2pcs. 1318107-1* 8pcs.	-	Connector (Tyco Electronics) 1-1318119-3 x 2pcs.  Contact (Tyco Electronics) 1318107-1 x 8pcs. 	X	X	X	X
24VDC Power Supply Connector (for DCIN)	FCUA-CN220	-	Connector (Tyco Electronics) 2-178288-3 x 1pc.  Tin contact (Tyco Electronics) 1-175218-5 x 3pcs. 	X	X	X	X
Remote I/O Unit – Terminal Block	7940-6500SC* 4pcs. 3448-7940* 4pcs.	-	Connector (3M) 7940-6500SC x 4pcs.  Strain relief (3M) 3448-7940 x 4pcs. 	X	X	X	X
DI/DO Connector	7950-6500SC* 2pcs. 3448-7950* 2pcs.	-	Connector (3M) 7950-6500SC x 2pcs.  Strain relief (3M) 3448-7950 x 2pcs. 	X	X	X	X
ON/OFF Switch Connector	50-57-9404 16-02-0103* 4pcs.	-	Connector (MOLEX) 50-57-9404 x 1pc.  Contact (MOLEX) 16-02-0103 x 4pcs. 	X	X	-	-
Operation Panel I/O Connector	2-1318119-4 1318107-1* 8pcs.	-	Connector (Tyco Electronics) 2-1318119-4 x 1pc.  Contact (Tyco Electronics) 1318107-1 x 8pcs. 	-	-	X	X