

Dedicated Milling Functions

				Pulse Train						Serial BUS									
				6 Series		10 Series		11 Series		6 Series		21 Series		200 Series					
	Items	Units	Remark	MA	MB	MF	MA	MB	MD	MD-H*	MA	MA-H*	MA	MA-5	MB	MB-5			
Product Specification	Max. PLC Controlled Paths			2		4		2		2		2		4					
	Max. PLC Controlled Paths			1		3		1		1		1		3					
	Standard Axis	Axis		3	4	8	4	8	4	6	8		12						
	Max. Axis (Optional)	Axis		3	4	8	4	8	5	6	9		16						
	Max. Spindle	Axis		1	2	6	2	4	2	4	6								
	Max. Simultaneous Axis Control	Axis		3	4	4	4		4	4	4	4	5	4	5				
	Min. Control	mm		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001					
	Max. number of program coordinate	Set		32		100		100		32		100		100					
	Max. Number of Table Tools	Set		96		96		96		96		96		96					
	Multi-Channel Function Group	Set		4		4		4		4		4		4					
Look-Ahead Blocks no.	Blocks/Sec		100		2000		1000		100		2000		2000						
Block Processing timT	Blocks/Sec		300		3000		2500		600		2500		3000	4000	3000	4000			
Hardware Specifications	Storage(DISKA)	MB		256		256		512		512		512		256					
	Standard I/O	-		32/32		64/64		32/32		64/64		32/32		32/32					
	Optional I/O	-		-		128/128		-		128/128		-		96/96		96/96			
	DA	Set		2		1		2		2		2		1					
	Monitor	Inch		8		10.4		10.4		8		8/10.4/12/15		10.4/15					
	CF Card	Set	Front side	-		1		-		-		-		1					
	USB	Set		2		1		2		2		2		1					
	CF Card	Set	Back side	0		2		0		0		0		2					
	RJ-45	Set		1		2		1		1		1		2					
	VGA Output	Set		0		1		0		0		0		1					
	PS/2	Set		0		1		0		0		0		1					
	RS-232	Set		0		1		0		0		0		1					
	RS-422	Set		0		1		0		0		0		1					
	RS-485	Set		1		1		1		1		1		1					
USB	Set	0		2		0		0		0		2							
SRI	Set		-		-		-		-	1	-	1	-						
Servo Control	Pulse Train (A/B Phase)			0		0		0		-		-		-					
	Pulse Train (CW/CCW)			0		0		0		-		-		-					
	Mechatrolink II(Yaskawa serial bus)			-		-		-		0		0		0					
	Mechatrolink III(Yaskawa serial bus)			-		-		-		-	0	-	0	-					
Compensation	Backlash Compensation			0		0		0		0		0		0					
	Pitch Error Compensation			0		0		0		0		0		0					
	Angular Error Compensation			0		0		0		0		0		0					
	Temperature Error Compensation			0		0		0		0		0		0					
	2 Dimension Error Compensation			-		0		0		-		0		0					
Operation	MPG Simulation			0		0		0		0		0		0					
	Dry Run			0		0		0		0		0		0					
	Optional Stop			0		0		0		0		0		0					
	Single Block			0		0		0		0		0		0					
	Virtual MPG			0		0		0		0		0		0					
	Restart at Feedhold			0		0		0		0		0		0					
	Restart at Break Point			0		0		0		0		0		0					
	Tool Return			0		0		0		0		0		0					
Fixture Offsets			0		0		0		0		0		0						
MPG Offsets			0		0		0		0		0		0						
Programming	Optional Skip	Skip blocks starting with"/"		0		0		0		0		0		0					
	B-Stop			0		0		0		0		0		0					
	Absolute Zero Point Coordinate	G92/G92.1		0		0		0		0		0		0					
	Interrupt Macro	M96/M97		0		-		-		0		0		0					
	M198 call Subroutines			0		-		-		0		0		0					
	Expandable G Code			0		0		0		0		0		0					
HSHP	Constant Jerk Control			0		0		0		0		0		0					
	Multiblocks S-curve motion plan			-		0		0		-		0		0					
	Auto declaration in Corner			0		0		0		0		0		0					
	Speed Limit for Round Radius			0		0		0		0		0		0					
	Multiple Sets of HSHP Parameters			-		0		0		-		0		0					
	Quick Parameter Setup			-		0		0		-		0		0					
	SPA Feature			0		0		0		0		0		0					
	Virtual Radius Function (for Rotary Axis)			-		0		-		0		0		0					
	HSHP Control Mode I (G05.1 Q1)	G05.1 Q1		-		0		0		-		0		0					
HSHP Control Mode II (G05P10000)	G05P10000		-		Δ		0		-		0		Δ						
NURBS Interpolation Ability			-		Δ		0		-		0		Δ						

				General Purpose					Serial BUS								
				6 Series		10 Series	11 Series		6 Series		21 Series		200 Series				
	Items	Units	Remark	MA	MB	MF	MA	MB	MD	MD-H*	MA	MA-H*	MA	MA-5	MB	MB-5	
Tool Management	Auto Tool Setting			0	0	0			0	0							
	Auto Tool Management		Works with Renishaw hardware only	0	0	0			0	0							
	Tool Life Management		Function needs to be customized	0	0	0			0	0							
Accessibility	Machine Lock (R bit)			0	0	0			0	0							
	Software Limit			0	0	0			0	0							
	Spindle Speed Arrival Check			0	0	0			0	0							
	Axis Synchronize Feature			0	0	0			0	0							
	Dynamic Axis Synchronize Feature			0	0	0			0	0							
	Dynamic Axis Synchronize Feature			0	0	0			0	0							
	Rapid Retraction for Rigid Tapping			0	0	0			0	0							
	Virtual Axis Feature			0	0	0			0	0							
	Axis Change Feature			0	0	0			0	0							
	Axial Torque Limit			-	-	-			0	0							
	Serial Bus Setting Feature(CNC Axis)			-	-	-			0	0							
	Driver Information Display(CNC Axis)			-	-	-			0	0							
	Spindle Application Feature(CNC Axis)			-	-	-			0	0							
	Serial Bus PLC Axis			-	-	-			0	0							
	ROT Element			-	-	-			0	0							
	Dipole Front and Back System			-	0	0			-	0							
	Data Backup Recovery		Maker Backup		0	0	0			0	0						
	Customized Opening Screen				0	0	0			0	0						
My Favorites		Only Eight key system supports		-	-	0			-	0							
Project Protection Feature				0	0	0			0	0							
Limit Access Manager				0	0	0			0	0							
Remote AP Monitor				0	0	0			0	0							
Program Edit	Background Edit			0	0	0			0	0							
	Edit Protection			0	0	0			0	0							
	Immediate Grammar Check			0	0	0			0	0							
PLC	PLC Diagnosis Feature(FORCE I Point)			-	0	0			0	0							
Data Transfer	Network			0	0	0			0	0							
	FTP			0	0	0			0	0							
	RS-485			0	0	0			0	0							
	DNC(NETWORK)			0	0	0			0	0							
	DNC(USB)			0	-	0			0	0							
Information Display	Operation CV Display			0	0	0			0	0							
	Graphic Simulation			0	0	0			0	0							
	Partial Graphic Simulation			0	0	-			0	0							
	Dynamic Multi-Language Switch			-	0	0			0	0							
Inclined Plane	Feature Coordinate(Inclined Plane Process)		G68.2,G68.3	-	Δ	-			-	Δ					Δ		
	Feature Coordinate Teach			-	Δ	-			-	Δ					Δ		
5 axis feature	5 Axis RTCP		G43.4	-	-	-			-	-			-	Δ	-	Δ	
	Smooth TCP			-	-	-			-	-			-	Δ	-	Δ	
G code command	High Precision Locus Control Mode		G05P10000	-	Δ	0			-	0					Δ		
	Smoothing Path Mode		G05.1	-	0	0			0	0					0		
	NURBS Interpolation		G06.2	-	Δ	0			-	0					Δ		
	Thread Cutting		G33	0	0	0			0	0					0		
	Auto Tool Measurement		G37	0	0	0			0	0					0		
	Tool of Offsets		G45~G48	0	0	0			0	0					0		
	High Speed Peck Drilling Cycle		G73	0	0	0			0	0					0		
	Left Handed Tapping		G74	0	0	0			0	0					0		
	High Precision Boring Cycle		G76	0	0	0			0	0					0		
	Drilling cycling		G81	0	0	0			0	0					0		
	Chopping		G81.1	-	0	0			-	0					0		
	Bottom Feed Hold Drilling Cycle		G82	0	0	0			0	0					0		
	Peck Drilling Cycle		G83	0	0	0			0	0					0		
	Tapping Cycle		G84	0	0	0			0	0					0		
	Boring Cycle		G85	0	0	0			0	0					0		
	High Speed Boring Cycle		G86	0	0	0			0	0					0		
	Back Boring Cycle		G87	0	0	0			0	0					0		
	Semi Automatic Finishing Boring Cycle		G88	0	0	0			0	0					0		
Bottom Feed Hold Boring Cycle		G89	0	0	0			0	0					0			
Multi-Group HSHP Parameter		G120.1		-	0	0			0	0				0			

Remark * Only sell in Mainland China O: standard function,
 ** Only sell in Taiwan Δ: optional function,
 *** VGA is only provided in the rear half -: Not available function
 **** 210TB-H5 is only 10.4" .