

(13) Parameters related to spindle control (1/2)

No.	Symbol	Description
0003#5	GST	By SOR (G120, #5), spindle orientation is executed/a gear-change is executed.
0012#6	G84S	If the G74 or G84 cycle is specified, the gear is changed at a point specified through S analog output gear-change method A or B/at a point specified in parameters 0540 and 0556.
0013#5	ORCW	In spindle orientation, S analog output is positive/negative.
0013#6, #7	TCW, CWM	Sign output in S analog output
0014#0	SCTA	The spindle speed arrival signal is checked conditionally/always.
0020#7	SFOUT	SF (F150, #2) is output when a gear-change is made/even if a gear-change is not made.
0024#2	SCTO	The spindle speed arrival signal SAR (G120, #4) is not checked/is checked.
0028#6, #7	PSG*	Gear ratio between the spindle and position coder
0029#4	SFOB	Under constant surface speed control, SF (F150, #2) is output/is not output.
0035#6	LGCM	The gear-change speed is the maximum speed of each gear (method A)/is determined by parameters 0585 and 0586 (method B).
0041#4, #5	SSCA*	Axis used as the calculation standard under constant surface speed control
0062#3	SPMRPM	Parameters of spindle speed control are specified in units of 1 RPM/ 0 RPM.
0065#1	CZRN	For the first G00 command after the Cs contour control mode is selected, a reference position return is made, then positioning is executed/normal positioning is executed.
0070#0, #1	DAC*	For D/A conversion, the analog interface board is not used/is used.
0071 #0	ISRLPC	When the serial interface spindle is used, the position coder signal is fetched from the optical fiber cable/connector M27.
0071#4	SRL2SP	The number of serial interface spindles connected is one/two.
0071#7	FSRSP	The serial interface spindle is not used/is used.
0080#2, #3	MORCM*	For the first and second spindle motors, the spindle orientation function with the stop position set externally is not used/is used.
0080#6, #7	SP*NEG	The directions of rotation of the first and second spindles during synchronous control of the spindle are the same as the specified sign/are the opposite of the specified sign.
0108	-----	Spindle speed in stable spindle rotation
0108	-----	Spindle motor speed at a gear-change
0110	-----	Delay timer if the spindle speed arrival signal SAR (G120, #4) is checked
0 3 0 3	-----	Permissible difference in the number of error pulses for phasing in the synchronous control mode
0516	-----	Data for adjusting the gain under constant surface speed control (analog output)
0539	-----	[Neutral gear] Maximum spindle speed
0541	----- [Low gear]	
0 5 5 5	-----	[High gear]
0540 to 0543	- - - - -	Spindle speed when the voltage for specifying the spindle speed of each gear is 10 V
0 5 4 0	-----	[Neutral gear] Minimum spindle speed in a tapping cycle
0 5 5 6	----- [High gear]	
0 5 4 2	-----	Upper limit of the value output to the spindle motor
0 5 4 3	-----	Lower limit of the value output to the spindle motor
0 5 5 1	-----	Minimum spindle speed in the constant surface speed control mode (G96)

(13) Parameters related to spindle control (2/2)

No.	Symbol	Description
0556	-----	Maximum spindle speed for the constant surface speed control function
0 5 7 6	-----	Permissible error in the number of error pulses between two spindles in the mode of (simple) synchronous control of the spindle
0 5 7 7	-----	Spindle speed offset compensation
0585, 0586	-----	Gear-change point in S analog switching method B
0 6 7 3 0677	----- -----	(Channel 1) Data for adjusting the gain in analog output (Channel 2)
0674 0678	----- ----- (Channel 2)	(Channel 1) Offset compensation in analog output (Channel 2)
0957 to 0959	-----	Limit of position error during spindle rotation at the maximum spindle speed
6780 to 6783	-----	Position loop gain of the servo axis in the Cs contour control mode
6784 to 6787 6788 to 6791 6792 to 6795 6796 to 6799	----- ----- ----- -----	(X)Position loop gain of the servo axis in the Cs contour control mode of each gear (Y) (Z) (4)
7516	-----	Data for adjusting the gain under sub-spindle control by the S command specified with four or five digits
7539	-----	Sub-spindle speed offset compensation

(14) Parameters related to tool compensation (I/I)

No.	Symbol	Description
0001#3	RS43	When a reset occurs, the vector of tool length compensation is cleared/is not cleared.
0003#6	TSLT	Tool length compensation is executed on the Z-axis (type A)/an axis vertical to the specified plane (type B).
0016#2	SUPM	In cutter compensation C, start-up and cancellation are executed through the method of type A/B.
0019#3	TLCD	Tool length compensation A or B/C
0024#3	G37GI	When measurement is performed without applying offsets in automatic tool length compensation, the wear offset is rewritten and the geometry offset is cleared/the geometry offset is rewritten and the wear offset is cleared.
0030#2	OFCDH	Tool compensation memory C is disable/enabled.
0036#5	TLCDOK	In tool length compensation of type C, offset of two or more axes is disabled/enabled.
0036#6	OFRD	Tool length compensation and cutter compensation are specified with the H code./ Tool length compensation and cutter compensation C are specified with the H code and D code, respectively.
0062#2	G40V	Operation by a single command (G40, G41, or G42)
0397#3	NOPS41	For cutter compensation, interference check is performed/not performed.
0 5 5 7	-----	Maximum travel distance that can be ignored on the outside of a corner in cutter compensation C