

A0 Servo general using				
A0.00	Servo control mode selection	0: Speed control mode 1: Pulse synchronization 2: Position control	0	★
A0.01	Position regulator output limit	0~100.0%	20.0%	☆
A1 synchronization pulse				
A1.00	Pulse command input form selection	0: Quadrature pulse 1: A pulse + B direction 2: A positive PULSE 3: A negative PULSE 4: Reserved 5: High-speed trains X5 6: AI1 analog position control	0	★
A1.01	Quadrature phase sequence switching	0: not exchanged 1: AB exchange	0	★
A1.02	High-speed X5 resolution	0~62	1	☆
A1.03	Using interrupt for receiving high speed pulse X5		0	☆
A1.04	Position loop gain 1 (sync pulse)	0.0~80.0	10.00	☆
A1.05	Position loop gain 2 (sync pulse)	0.0~80.0	8.00	☆
A1.06	Pre-feedback gain of position loop	0.0~5.0	1.00	☆
A1.07	Reserved		0.95	☆
A1.08	Reserved			
A1.09	Reserved			
A1.10	Electronic gear numerator 1	0~65535	1	★
A1.11	Electronic gear numerator 2	0~65535	1	★
A1.12	Electronic gear numerator 3	0~65535	1	★
A1.13	Electronic gear numerator 4	0~65535	1	★
A1.14	Electronic gear denominator	0~65535	1	★
A1.15	Location close to the deviation range	0~3000	30	☆
A1.16	Location close to the deviation range	0~3000	15	☆
A1.17	Positioning completion judgment time	0.0~60.0S	0.03	☆
A1.18	Positioning complete signal hold time	0.0~60.0S	0.20	☆
A1.19	Position feed forward filter time constant	0.0~10.0S	0.015	☆

A1.20	Position command filter time	0.0~10.0S	0.00	☆
A1.21	Reserved		0.004	
A1.22	Position loop gain switching mode	0: Do not switch 1: switch position deviation 2: Positioning complete switching 3: Torque command switching 4: Speed command switching 5: Reserved 6: Single-shot deviation level 2limiter	0	☆
A1.23	Gain switching position deviation level 1	0~30000	50	☆
A1.24	Gain switching position deviation level 2	0~30000	200	☆
A1.25	Position gain switching torque command level	0.0~100.0%	10.0%	☆
A1.26	Position gain switching torque command level	0.0~100.0%	10.0%	☆
A1.27	Position gain switching smoothing coefficient	0~ 15	5	★
A2 Positioning control				
A2.00	Positioning mode selection	0: Incremental 1: Absolute 2: indexing plate 3: accurate stop nearby	0	★
A2.01	Internal digital positioning selection	Bit0~Bit9	8888	☆
A2.02	Direction setting	0: 正向 1: 反向 2: 当前方向	0	☆
A2.03	Positioning control start frequency	0.0~630.0Hz	10.0	☆
A2.04	Position loop gain 1	0.0~80.0	10.0	☆
A2.05	Position loop gain 2	0.0~80.0	8.0	☆
A2.06	Feedforward gain of position loop	0.0~5.0	1.0	☆
A2.07	Reserved		0.95	
A2.08	Positioning control acceleration time	0.0~650.0S	2.00	☆
A2.09	Positioning control deceleration time	0.0~650.0S	2.00	☆
A2.10	Reserved			
A2.11	Reserved			
A2.12	Reserved			
A2.13	Reserved			

A2.14	Reserved			
A2.15	Location closing deviation range	0~65535	30	☆
A2.16	Positioning complete deviation range	0~3000	15	☆
A2.17	Positioning completion judgment time	0.0~60.0S	0.030	☆
A2.18	Positioning complete signal hold time	0.0~60.0S	0.20	☆
A2.19	Origin of location selection	0: Z signal of first encoder 1: External terminal signal 2: Z signal position of latest power off 3: Z signal of second encoder	0	★
A2.20	Positioning origin retrieval direction	0: forward 1: Reverse 2: current direction	0	☆
A2.21	Positioning origin retrieval frequency	0.0~P0.04	2.00	☆
A2.22	Positioning arrival holding time	0.0~60.0S	0.10	☆
A2.23	Spindle positioning assistance frequency	0.0~630.0Hz	1.00	☆
A2.24	Spindle	0: mast and slave switching 1: AI1 2: AI2 3: AI3 4: PULSE	0	☆
A2.25	Spindle zero position	0~65535	0000	☆
A2.26	Spindle zero position 1	0~65535	1000	☆
A2.27	Spindle zero position 2	0~65535	2000	☆
A2.28	Spindle zero position 3	0~65535	3000	☆
A2.29	Spindle drive ratio	0.0~60.0	1.00	★
A2.30	Spindle exact stop frequency	0.0~630.0Hz	20.00	☆
A2.31	Spindle exact stop deceleration time	0.0~650.0S	2.00	☆
A2.32	Reserved			
A2.33	The corresponding speed to analogy 10V pulse synchronization	0.0~635.00Hz	50.00	☆
A2.34	Reserved			
A2.35	Reserved			
A2.36	Position command 0 high bit	0~65535	0	☆
A2.37	Position command 0 low bit	0~65535	0000	☆
A2.38	Command 0 running frequency	0.0~630.0Hz	200.0	☆

A2.39	Position command 1 high bit	0~65535	0	☆
A2.40	Position command 1 low bit	0~65535	1000	☆
A2.41	Command 1 running frequency	0.0~630.0Hz	200.0	☆
A2.42	Position command 2 high bit	0~65535	0	☆
A2.43	Position command 2 low bit	0~65535	2000	☆
A2.44	Command 2 running frequency	0.0~630.0Hz	200.0	☆
A2.45	Position command 3 high bit	0~65535	0	☆
A2.46	Position command 3 low bit	0~65535	3000	☆
A2.47	Command 3 running frequency	0.0~630.0Hz	200.0	☆
A2.48	Position command 4 high bit	0~65535	0	☆
A2.49	Position command 4 low bit	0~65535	4000	☆
A2.50	Command 4 running frequency	0.0~630.0Hz	200.0	☆
A2.51	Position command 5 high bit	0~65535	0	☆
A2.52	Position command 5 low bit	0~65535	5000	☆
A2.53	Command 5 running frequency	0.0~630.0Hz	200.0	☆
A2.54	Position command 6 high bit	0~65535	0	☆
A2.55	Position command 6 low bit	0~65535	6000	☆
A2.56	Command 6 running frequency	0.0~630.0Hz	200.0	☆
A2.57	Position command 7 high bit	0~65535	0	☆
A2.58	Position command 7 low bit	0~65535	7000	☆
A2.59	Command 7 running frequency	0.0~630.0Hz	200.0	☆
Function code	name	Minimum unit	Communication address	
C1 Position control monitoring group				
C1.00	Feedback pulse high bit		0~65535	
C1.01	Feedback pulse low bit		0~65535	
C1.02	Encoder high bit		0~65535	
C1.03	Encoder low bit		0~65535	
C1.04	Pulse reference high bit		0~65535	
C1.05	Pulse reference low bit		0~65535	
C1.06	Given reference starting position		0~65535	
C1.07	Given gain		0~65535	
C1.08	Feedback gain		0~65535	
C1.09	Deviation incremental d		0~65535	
C1.10	Position feedforward		0~65535	
C1.11	X5 reference pulse frequency		0~65535	
C1.12	Reference pulse frequency		0~65535	
C1.13	Frequency command		0~65535	
C1.14	Reverse			

C1.15	Spindle Zero point / division		0~65535	
C1.16	Reverse			
C1.17	Reverse			
C1.18	Reverse			
C1.19	Reverse			
C1.20	X5 Pre-dividing frequency reference		0~64	
C1.21	Z zero point		0~65535	
C1.22	Reserved			
C1.23	Positioning complete output		0~1	
C1.24	The current number steps of cycle		0~8	
C4 Calibration parameter set group				
C4.00	Checksum 1		Press UP/Down key can display function code default setting in circularly, and can press SET enter to changed the value	
C4.01	Checksum 2			
C4.02	Checksum 3			
C4.03	Checksum 4			
C4.04	Checksum 5			
C5 Servo Drive group				
C5.00	Model display		0~3	
C5.01	Power Display		0.1~655.3KW	
C5.02	Mechanical installation angle		0~359.9°	
C5.03	Actual torque		0~65535	
C5.04	Overload accumulated value		0~65535	
C5.05	Encoder zero point		0~65535	
C5.06	Z signal error count		0~65535	
C5.07	Actual carrier frequency		0.0~16.0KHz	
C5.08	Power angle		0~359.9°	
C5.09	Torque margin		0~200	
C5.10	Resolver disturbance state		0~100.0%	
C5.11	Motor shaft gear ratio		0.00~65.00	
C5.12	Encoder lines		0~65535	

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P0.04 P0.05, and P2.01 ~ P2.06 motor nameplate and encoder parameters.

3). Peter motor auto tuning to get exactly motor parameters.

Setting P2.27 = 2, to perform motor rotating auto tuning.

After the rotation motor auto tuning, please set value of C5.11 to P2.20, and check if the encoder lines value of C5.12 parameter show if as the same as motor nameplate. Please ensure set P2.20 =1 before motor auto tuning.

4) To verify the installation and setup of encoder if it is correct or not, skip this step if perform rotation motor auto tuning.

The direction of encoder, and parameters setting.

P2.18 uses to set encoder lines,

P2.19 uses to set type of encoder,

P2.20 uses to set encoder and motor drive ratio. Set it for 1.000 first.

Please start motor after P0.00=1, P0.0=20Hz parameters setting, and motor will run to 20Hz.

To check the speed measurement value C0.25/C0.26 if correct or not, if the speed measurement value is negative, it stands for the director of encoder in reverse. If the deviation of speed measurement value is too big, it means P2.18 or P2.20 have wrong setting.

To observe C5.11 (drive ratio of encoder and motor), and set it into P2.20.

Note: The encoder must use the shielded cable connecting, and connect the shield layer to grounding terminals PE of servo drive.