

CD Series 5 Motion buffer

Preliminary draft revision 0.1

We assume that the user is familiar w/ the use of motion buffer, for more info see PositionControl.pdf

Available 1,2,4,8,16 motions buffer.

- **Use INxMODE=7 to trigger index movements**
- **Use INxMODE=28 to trigger absolute movements.**

BIT0 - INxMODE=15
BIT1 - INxMODE=14
BIT2 - INxMODE=28
BIT3 - INxMODE=29

For one buffer motions no need for using BIT.

For two buffer motions use BIT0.

For four buffer motion use BIT0 BIT1.

For eight buffer motion use BIT0 BIT1 Bit2.

For sixteen buffer motion use BIT0 BIT1 BIT2 BIT3.

IN1MODE=0
IN2MODE=0
IN3MODE=0

Available value: from 0 to 30, maximum latency 2 mS.

Extended I/O

IN4MODE=0
IN5MODE=0
IN6MODE=0

Available value: 0-2, 7-9,12-15,17-30

The motion buffer

Line	Incremental or Absolute	Assign speed
0	MIDIST0=0	MISPEED0=0
1	MIDIST1=0	MISPEED1=0
2	MIDIST2=0	MISPEED2=0
3	MIDIST3=0	MISPEED3=0
4	MIDISTX=4 0	MISPEEDX=4 0
5	MIDISTX=5 0	MISPEEDX=5 0
6	MIDISTX=6 0	MISPEEDX=6 0
7	MIDISTX=7 0	MISPEEDX=7 0
8	MIDISTX=8 0	MISPEEDX=8 0
9	MIDISTX=9 0	MISPEEDX=9 0
10	MIDISTX=10 0	MISPEEDX=10 0
11	MIDISTX=11 0	MISPEEDX=11 0
12	MIDISTX=12 0	MISPEEDX=12 0
13	MIDISTX=13 0	MISPEEDX=13 0
14	MIDISTX=14 0	MISPEEDX=14 0
15	MIDISTX=15 0	MISPEEDX=15 0

How to use MIDISTX

-->MIDISTX 4

0

-->MIDISTX 4 100

INxMODE	Short description	
1	CW_LIM_Input	
2	CCW_LIM_Input	
3	GEAR_DISABLE_Input	
4	GEAR_MASK_Input	
5	GEAR_A_Input	
6	GEAR_B_Input	
7	MI_TRIG_Input	
8	ILIM2_Input	
9	OP1_TO_OP3_Input	
10	HOME_SW_Input	
11	CAPTURE_TRIGGER_Input	
12	HOME_MOVE_Input	
13	MAPOS_Input	
14	MI_BIT1_Input	
15	MI_BIT0_Input	
16	CAPTURE_Input	
17	ACT_DIS_Input	
18	RELAY_CTRL_Input	
19	HOLD_SW_Input	
20	OP1_TO_OP4_Input	
21	MI_TRIG_NO_PEND_Input	
22	DIVIDER_HEAD_1_Input	
23	DIVIDER_HEAD_2_Input	
24	OP4_TO_OP8_Input	
25	CLEAR_FAULT_Input	
26	PFB_ON_ENCSIM	
27	RELAY_CTRL_Input2	
28	MI_BIT2_Input	
29	MI_BIT3_Input	
30	MA_BUF_TRIG	

* for full description refer to the CD user manual and ServoSTAR Manual Addendum for Series 5 V4-0.pdf

Example:

	Binary				Switch	16 different Incremental movements	Set speed to 100 RPM
Line	BIT3 IN4MODE =29	BIT2 IN3MODE =28	BIT1 IN2MODE =14	BIT0 IN1MODE =15	Incremental IN5MODE =7		
0	0	0	0	0	0 to 1 transition	MIDIST0=100	MISPEED0=100
1	0	0	0	1	-"	MIDIST1=200	MISPEED1=100
2	0	0	1	0	-"	MIDIST2=300	MISPEED2=100
3	0	0	1	1	-"	MIDIST3=400	MISPEED3=100
4	0	1	0	0	-"	MIDISTX=4 500	MISPEEDX=4 100
5	0	1	0	1	-"	MIDISTX=5 600	MISPEEDX=5 100
6	0	1	1	0	-"	MIDISTX=6 700	MISPEEDX=6 100
7	0	1	1	1	-"	MIDISTX=7 800	MISPEEDX=7 100
8	1	0	0	0	-"	MIDISTX=8 900	MISPEEDX=8 100
9	1	0	0	1	-"	MIDISTX=9 1000	MISPEEDX=9 100
10	1	0	1	0	-"	MIDISTX=10 1100	MISPEEDX=10 100
11	1	0	1	1	-"	MIDISTX=11 1200	MISPEEDX=11 100
12	1	1	0	0	-"	MIDISTX=12 1300	MISPEEDX=12 100
13	1	1	0	1	-"	MIDISTX=13 1400	MISPEEDX=13 100
14	1	1	1	0	-"	MIDISTX=14 1500	MISPEEDX=14 100
15	1	1	1	1	-"	MIDISTX=15 1600	MISPEEDX=15 100

0 – OFF, 1 - ON