111 Number message operation instructions

Message structure：

Message	111	
PZD1	STW1	ZSW1
PZD2	POS_STW1	POS_ZSW1
PZD3	POS_STW2 Reserved	POS_ZSW2
PZD4	STW2	ZSW2（Life signal test Inovance Display 0）
PZD5	OVERRIDE	MELDW
PZD6	MDI_TARPOS	XIST_A
PZD7		
PZD8	MDI_VELOCITY	NIST_B
PZD9		
PZD10	MDI_ACC	FAULT_CODE
PZD11	MDI_DEC	WARN_CODE
PZD12	User	User

I/O data signal：

Signal	Describe	Receive/Send	Data type	Calibration
STW1	Control word 1	Receive	U16	
POS_STW1	Location control word1	Receive	U16	
POS_STW2	Location control word2	Receive	U16	
ZSW1	Status word 1	Send	U16	
POS_ZSW1	Location status word1	Send	U16	
POS_ZSW2	Location status word2	Send	U16	
STW2	Control word2	Receive	U16	
ZSW2	Status word2	Send	U16	
OVERRIDE	Position velocity ratio	Receive	I16	4000hex = 100%
MELDW	Message word	Send	U16	
MDI_TARPOS	MDI position instruction	Receive	I32	1hex = 1LU
XIST_A	Position actual value A	Send	I32	1hex = 1LU
MDI_VELOCITY	MDI speed command	Receive	I32	1hex = 1000LU/min

NIST_B	Actual speed B	Send	I32	40000000hex = Rated speed
MDI_ACC	MDI ACC ratio	Receive	I16	4000hex = 100%
FAULT_CODE	Fault code	Send	U16	
MDI_DEC	MDI DEC ratio	Receive	I16	4000hex = 100%
WARN_CODE	Warning code	Send	U16	
User	0：No function 1：Torque limit	Receive	I16	Torque limit 1 = 0.1%
User	0：No function 1：Torque feedback 2： Actual current value	Send	I16	Torque feedback 1 = 0.1%

STW1：

Single	Describe
STW1.0	1：ON（Can enable pulse） 0：OFF1（Slope stop，no pulse，ready to connect）
STW1.1	1：No OFF2（Allow enable） 0：OFF2（Inertia stop，no pulse，prohibit connect）
STW1.2	1：No OFF3（Allow enable） 0：OFF3（Fast stop，no pulse，prohibit connect）
STW1.3	1：Allow run 0：Prohibit run
STW1.4	1：Perform task 0：Refuse to perform task
STW1.5	1：Perform task 0：Suspend perform task
STW1.6	0->1 Rising edge, activate task
STW1.7	0->1 Rising edge, activate fault
STW1.8 Reserved	1：ON JOG1 0：OFF JOG1
STW1.9 Reserved	1：ON JOG2 0：OFF JOG2
STW1.10	1：PLC control 0：Non PLC control
STW1.11	1：ON-Back to 0 0：OFF-Back to 0
STW1.12	Reserved
STW1.13	Reserved
STW1.14	Reserved
STW1.15	Reserved

ZSW1：

Single	Describe
ZSW1.0	1：Ready to connect 0：Connect not ready
ZSW1.1	1：Ready to operation 0：Operation not ready
ZSW1.2	1： Operation enable 0：Prohibit operation
ZSW1.3	1：Fault 0：No fault
ZSW1.4	1：Inertia stop invalid 0：Inertia stop effective
ZSW1.5	1：Fast stop invalid 0：Fast stop effective
ZSW1.6	1：Prohibit connect effective 0：Prohibit connect invalid
ZSW1.7	1：Warning 0：No warning
ZSW1.8	1：Position tracking error in the tolerance 0：Position tracking error out of tolerance
ZSW1.9	1：Has control request 0：No control request
ZSW1.10	1：Target position reached 0：Target position is not reached Function code Pn262
ZSW1.11	1：Reference point set 0：No reference point set When return to 0 finished ,set to 1
ZSW1.12	0->1Rising edge, active positioning, mobile task confirmation
ZSW1.13	1：Servo driver OFF 0：Servo driver ON Function code Pn317
ZSW1.14	Reserved
ZSW1.15	Reserved

POS_STW1:

Single	Describe
POS_STW1.0- POS_STW1.7	Reserved
POS_STW1.8	1：Absolute positioning 0：Relative positioning
POS_STW1.9	1：MDI direction selection, forward
POS_STW1.10	1：MDI direction selection, reverse
POS_STW1.11- POS_STW1.13	Reserved
POS_STW1.14	1：Select single adjustment 0：Select single location
POS_STW1.15	1=MDI select

POS_ZSW1:

Single	Describe
POS_ZSW1.0- POS_ZSW1.7	Reserved
POS_ZSW1.8	Reserved
POS_ZSW1.9	Reserved
POS_ZSW1.10	1：JOG mode active　0：JOG Mode not active STW1.8/STW1.9 Start Jog mode,set 1
POS_ZSW1.11	Reserved
POS_ZSW1.12- POS_ZSW1.13	Reserved
POS_ZSW1.14	1：Adjustment mode active 0：Positioning mode active
POS_ZSW1.15	1：MDI active 0：MDI not active

POS_STW2:

Single	Describe
POS_STW2.0	Reserved
POS_STW2.1	Reserved　1：Set reference point
POS_STW2.2	Reserved　1：Reference point stop active
POS_STW2.3- POS_STW2.13	Reserved
POS_STW2.14	1：Soft limit switch ON　0：Soft limit switch OFF After the soft limit is active, the soft limit position is set by servo (Function code PnA2A PnA2C)
POS_STW2.15	1：Hard limit switch ON　0：Hard limit switch OFF Hard limit is set by servo Pn601-pn607

POS_ZSW2:

Single	Describe
POS_ZSW2.0- POS_ZSW2.3	Reserved
POS_ZSW2.4	1：Axis moves forward 0：The axis does not move forward
POS_ZSW2.5	1：Axis backward movement 0：The axis does not move backward
POS_ZSW2.6	1：Negative soft limit switch ON　0：Negative soft limit switch OFF After reaching the negative soft limit position,set 1
POS_ZSW2.7	1：Forward soft limit switch ON　0：Forward soft limit switch OFF After reaching the forward soft limit position,set 1
POS_ZSW2.8- POS_ZSW2.15	Reserved

STW2：

Single	Describe
STW2.0- STW2.11	Reserved
STW2.12	Master station life symbol，Bit 0
STW2.13	Master station life symbol，Bit 1
STW2.14	Master station life symbol，Bit 2
STW2.15	Master station life symbol，Bit 3

ZSW2：

Single	Describe
ZSW2.0- ZSW2.9	Reserved
ZSW2.10	Pulse enable
ZSW2.11	Reserved
ZSW2.12	Secondary station life symbol, Bit 0
ZSW2.13	Secondary station life symbol，Bit 1
ZSW2.14	Secondary station life symbol，Bit 2
ZSW2.15	Secondary station life symbol，Bit 3

OVERRIDE(Position velocity ratio)

Position velocity ratio 0x4000<==>100%

MELDW(Message word)

Reserved message word

MDI_TARPOS(Target location)

Target location 1hex<==>1LU

XIST_A(Actual location)

Actual location 1hex<==>1LU

MDI_VELOCITY(Target speed)

Target speed 1hex<==>1000LU/min

NIST_B(Actual speed)

40000000hex<==>Rated speed

MDI_ACC(Acceleration magnification)

4000hex<==>100%,100% is the acceleration setting value corresponding to PnA26.PnA26 unit is1000LU/s^2 (Factory value 100)

MDI_DEC(Deceleration magnification)

4000hex<==>100%,100% is the deceleration setting value corresponding to PnA28.PnA28 unit is1000LU/s^2(Factory value 100)

FAULT_CODE

FAULT_CODE	Meaning	Display
1	Parameter and check exception	Er.020
2	Parameter format exception	Er.021
3	System and check exception	Er.022
4	XML file not burned	Er.023
5	The main circuit detection unit is abnormal	Er.030
6	Abnormal parameter setting	Er.040
7	Abnormal setting of distribution pulse output	Er.041
8	Abnormal parameter combination	Er.042
9	Half closed loop / full closed loop parameter setting abnormal	Er.044
10	Capacity mismatch between drive and motor	Er.050
11	Product does not support alarm	Er.051
12	Encoder unit pulse distance setting abnormal	Er.080
13	Abnormal resolution setting of position sensor	Er.08A
14	Servo on command invalid alarm	Er.0B0
15	Over current (OC)	Er.100
16	Regeneration failure	Er.300
17	Regeneration overload	Er.320
18	Main circuit power wiring error	Er.330
19	Main circuit overvoltage (OV)	Er.400
20	Under voltage of main circuit	Er.410
21	Converter exception	Er.42A
22	Main circuit capacitor overvoltage	Er.450
23	Over speed (OS)	Er.510
24	Frequency division pulse output over speed	Er.511
25	Vibration alarm	Er.520
26	Auto tuning alarm	Er.521
27	Abnormal setting of maximum speed	Er.550
28	Overload (instantaneous maximum load)	Er.710
29	Overload (continuous maximum load)	Er.720
30	DB overload 1	Er.730
31	DB overload 2	Er.731
32	Impulse current limiting resistor overload	Er.740
33	Heat sink overheating	Er.7A0

34	Abnormal temperature of control substrate	Er.7AA
35	Servo unit built-in fan stop	Er.7AB
36	Encoder backup alarm	Er.810
37	Encoder sum check alarm	Er.820
38	Encoder battery alarm	Er.830
39	Encoder data abnormal	Er.840
40	Encoder over speed	Er.850
41	Encoder overheating	Er.860
50	Speed command A / D abnormal	Er.B10
51	Speed command A / D conversion data abnormal	Er.B11
52	torque command A / D abnormal	Er.B20
53	Current detection fault 1 (U phase)	Er.B31
54	Current detection fault 2 (V phase)	Er.B32
55	Current detection fault 3 (current detector)	Er.B33
58	System alarm 0	Er.BF0
59	System alarm 1	Er.BF1
60	System alarm 2	Er.BF2
61	System alarm 3	Er.BF3
62	Hardware over current	Er.BF4
63	Prevent out of control detection	Er.C10
64	Phase error detection	Er.C20
65	Hall sensor abnormal	Er.C21
66	Inconsistent phase information	Er.C22
67	Pole monitoring failed	Er.C50
68	Pole monitoring stop	Er.C51
69	Pole monitoring not finished	Er.C52
70	Pole monitoring over travel	Er.C53
71	Pole monitoring failure 2	Er.C54
72	Encoder clearing exception	Er.C80
73	Encoder communication failure	Er.C90
74	Abnormal acceleration of encoder communication position data	Er.C91
75	Encoder communication timer abnormal	Er.C92
76	Encoder parameters abnormal	Er.CA0
77	Encoder return check abnormal	Er.CB0
78	The upper and lower limits of the number of turns are inconsistent	Er.CC0
81	Excessive position deviation	Er.D00
82	Too large position deviation when servo is on	Er.D01
83	The position deviation caused by speed limit is too large when servo is on	Er.D02

84	Excessive deviation between motor and load position	Er.D10
85	Location data overflow	Er.D30
88	The main circuit selects three-phase power input, the phase is missing	Er.F10

WARN_CODE

WARN_CODE	Meaning	Warning display
1	Excessive position deviation	AL.900
2	Too large position deviation when servo is ON	AL.901
3	Overload warning	AL.910
4	Vibration warning	AL.911
5	Regeneration overload warning	AL.920
6	DB overload warning	AL.921
7	Battery undervoltage warning	AL.930
9	Frequent operation of storing parameters	AL.940
10	Parameter change warning requiring re power down	AL.941
11	PLC disconnection warning	AL.942
12	Position out of soft limit	AL.950
13	Under voltage warning	AL.971
14	Overtravel warning	AL.9A0

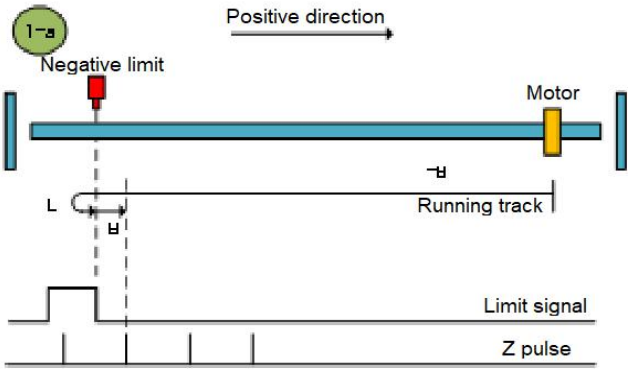
Origin regression mode

The origin regression mode is set by PnA20 function code，the zero return speed is set by PnA21 and PnA23 respectively，the unit is 1000LU/min.

The acceleration rate of return to zero is set by PnA25, and its reference points are PnA26 and PnA28. The following is the introduction of each return to zero mode.

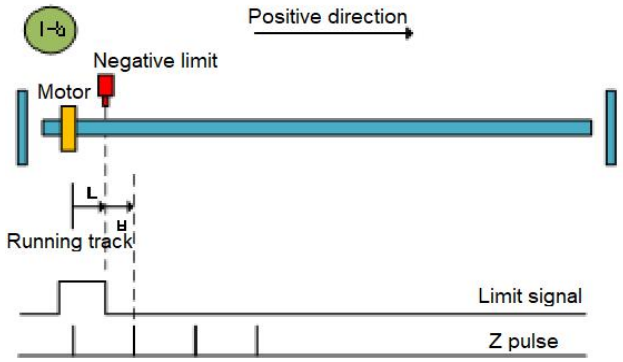
Origin zero back method 1

A. Start origin zero back→Reverse high speed negative limit→Negative limit rising edge encountered→Slow down to 0→Forward low speed search negative limit falling edge→Forward search Z pulse



Origin zero back method 1-A

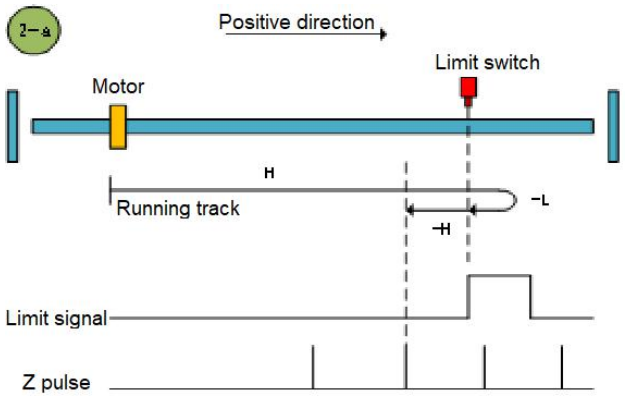
B.Start to return to the origin→Negative limit valid→Forward low speed search negative limit falling edge→Forward search Z pulse



Origin zero back method 1-B

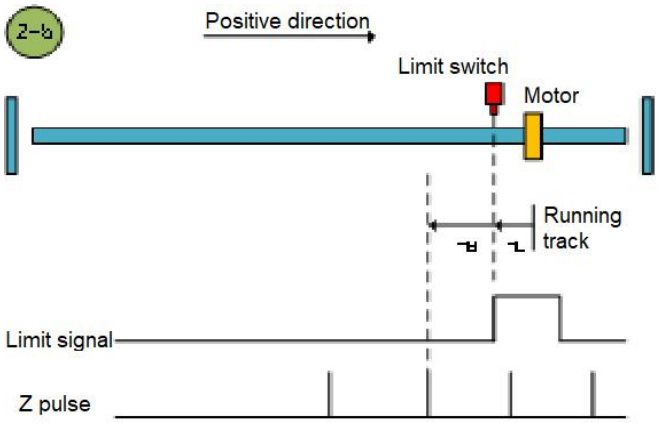
Origin zero back method 2

A. Start origin zero back→Forward high speed search positive limit→Positive limit rising edge encountered→Slow down to 0→Reverse low speed search positive limit falling edge→Reverse search Z pulse



Origin zero back method 2-A

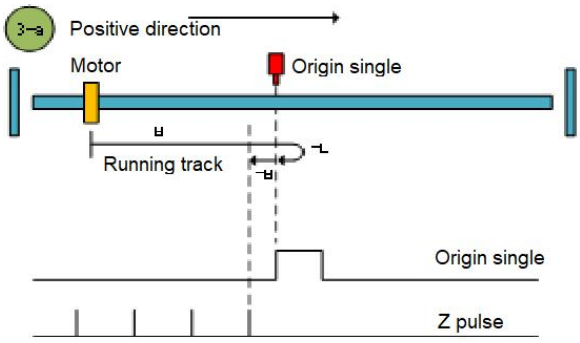
B.Start to return to the origin→Positive limit valid→Reverse low speed search positive limit falling edge→Reverse search Z pulse



Origin zero back method 2-B

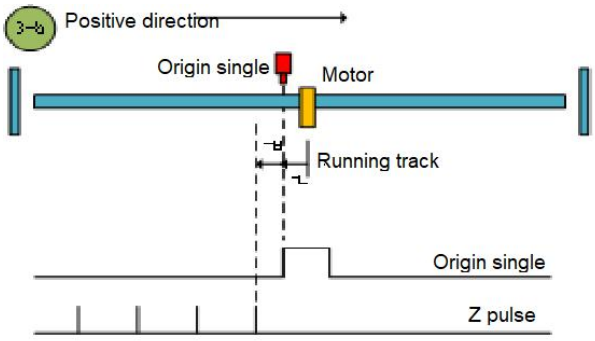
Origin zero back method 3

A.Start origin zero back→Origin signal OFF→Forward high speed find origin signal rising edge→Slow down to 0→Reserve low speed find origin signal falling edge→Reverse search Z pulse



Origin zero back method 3-A

B.Start origin zero back→Origin signal ON→Reverse low speed search origin falling edge→Reverse search Z pulse

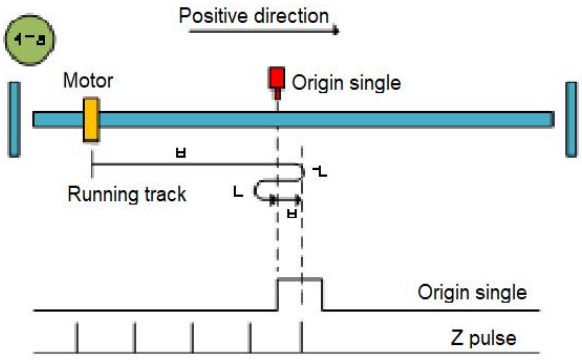


Origin zero back method 3-B

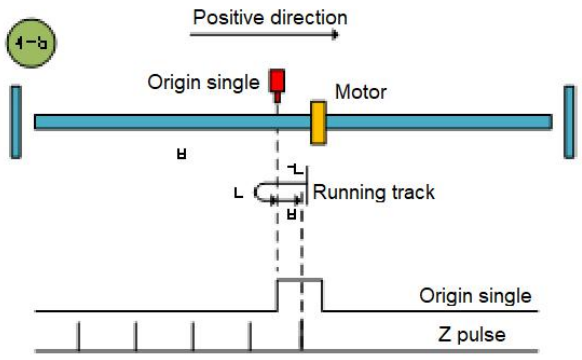
Origin zero back method 4

A. Start origin zero back→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Forward search Z pulse

B. Start to return to the origin→Origin signal ON→Reverse low speed search origin falling edge→Forward low speed search origin rising edge →Forward search Z pulse



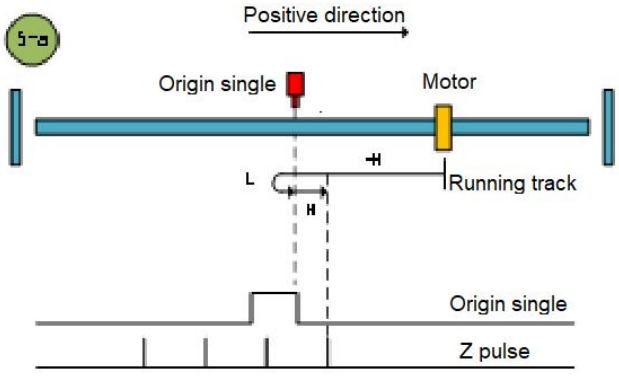
Origin zero back method 4-A



Origin zero back method 4-B

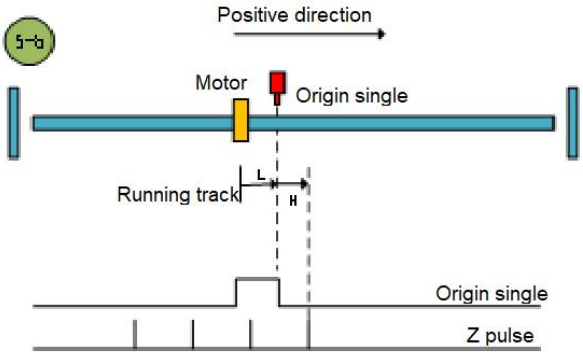
Origin zero back method 5

A.Start origin zero back→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Forward search Z pulse



Origin zero back method 5-A

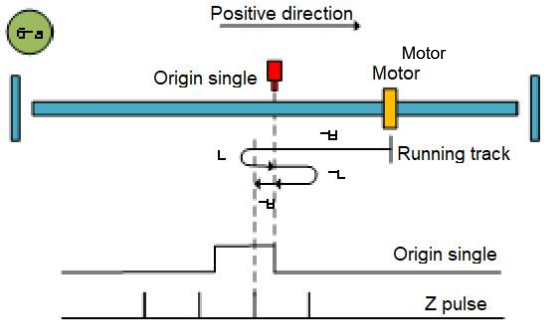
B.Start origin zero back→Origin signal ON→Forward low speed search origin falling edge →Forward search Z pulse



Origin zero back method 5-B

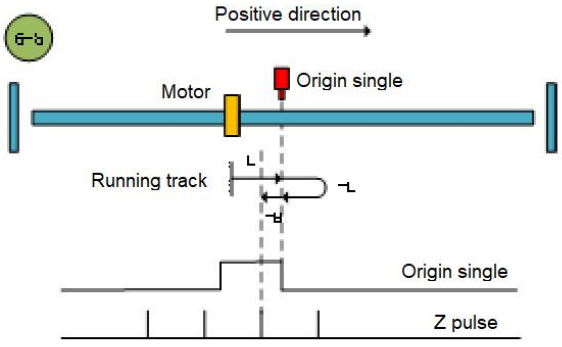
Origin zero back method 6

A. Start to return to the origin→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge →Reverse find Z pulse



Origin zero back method 6-A

B. Start to return to the origin→Origin signal ON→Forward low speed search origin falling edge →Reverse low speed search origin rising edge →Reverse search Z pulse



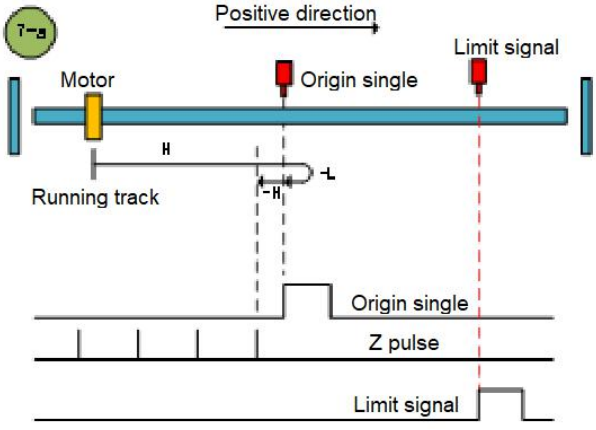
Origin zero back method 6-B

Origin zero back method 7

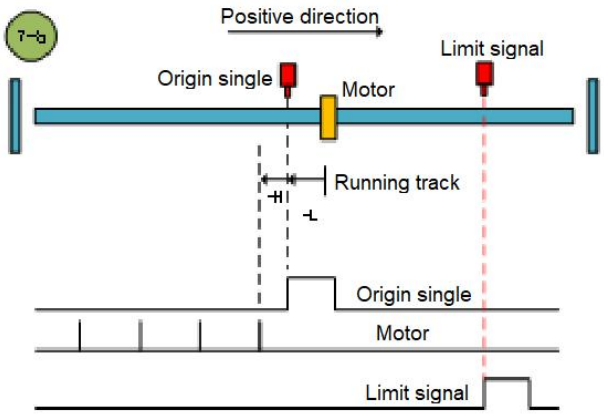
A. Start origin zero back→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Reverse low speed search origin falling edge→Reverse search Z pulse

B. Start origin zero back→Origin signal ON→Reverse low speed search origin falling edge→Reverse search Z pulse

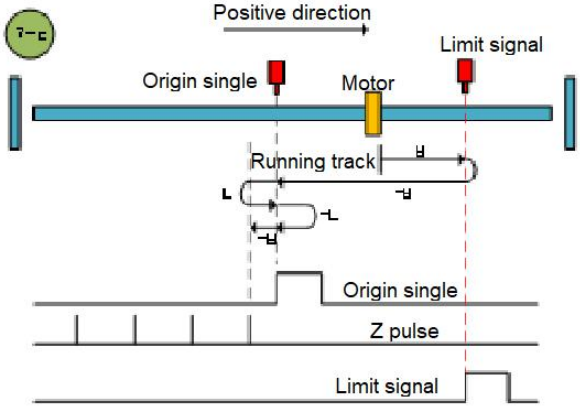
C. Start origin zero back→Origin OFF→Forward high speed search origin rising edge →Positive limit reached→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge→Reverse search Z pulse



Origin zero back method 7-A



Origin zero back method 7-B



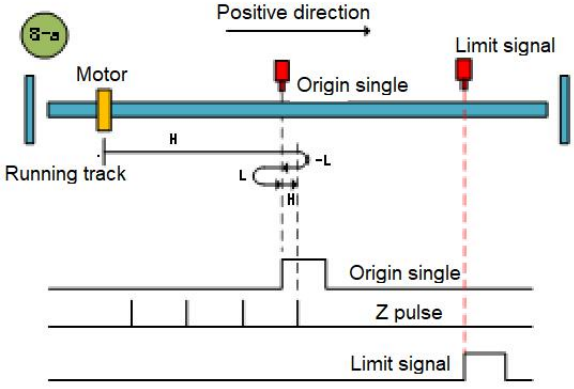
Origin zero back method 7-C

Origin zero back method 8

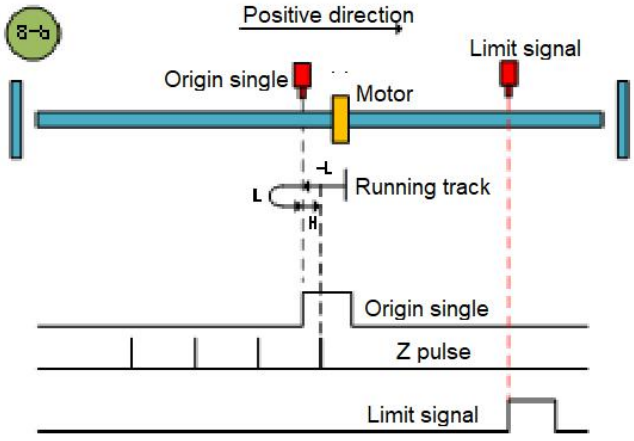
A. Start origin zero back→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Reverse low speed search origin falling edge→Forward low speed search origin rising edge →Forward search Z pulse

B. Start origin zero back→Origin signal ON→Reverse low speed search origin falling edge→Forward low speed search origin rising edge →Forward search Z pulse

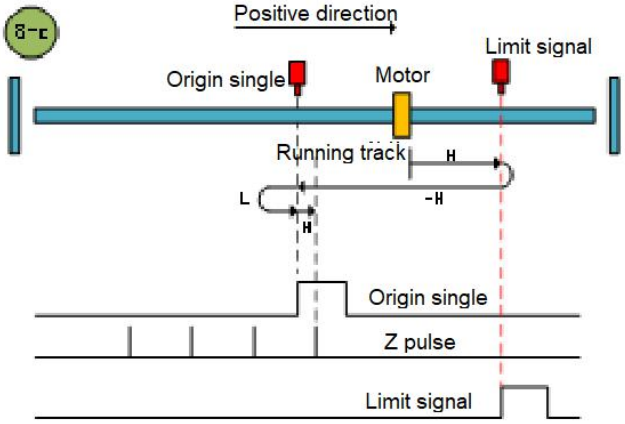
C. Start origin zero back→Origin OFF→Forward high speed search origin rising edge →Positive limit reached→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Forward search Z pulse



Origin zero back method 8-A



Origin zero back method8-B



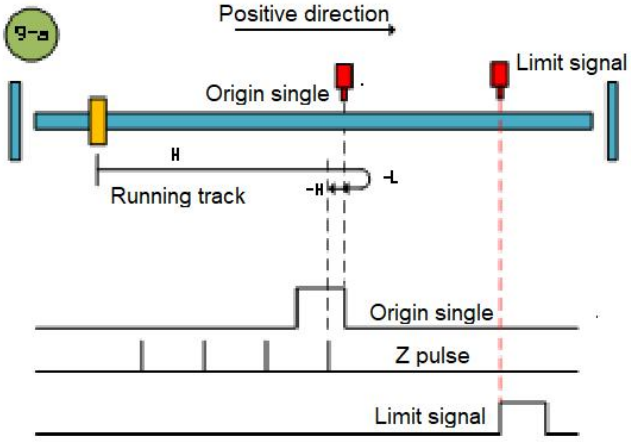
Origin zero back method 8-C

Origin zero back method 9

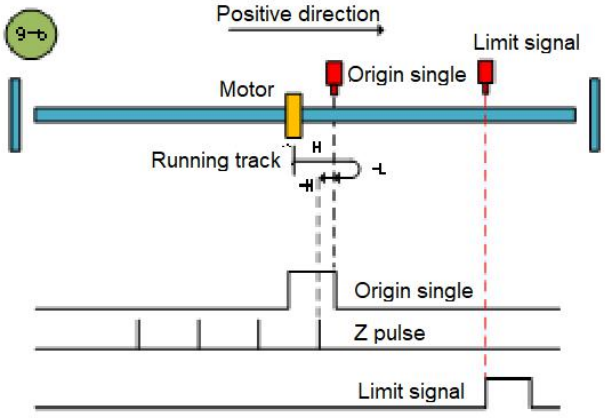
A.Start origin zero back→Origin signal OFF→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Reverse search Z pulse

B.Start origin zero back→Origin signal ON→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Reverse search Z pulse

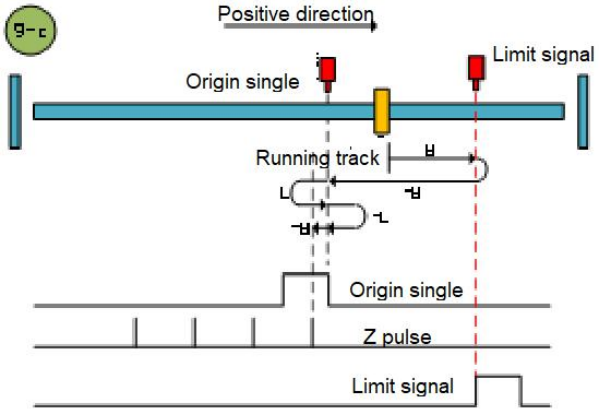
C. Start to return to the origin→Origin OFF→Forward high speed search origin falling edge→Positive limit reached→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge →Reverse search Z pulse



Origin zero back method 9-A



Origin zero back method 9-B



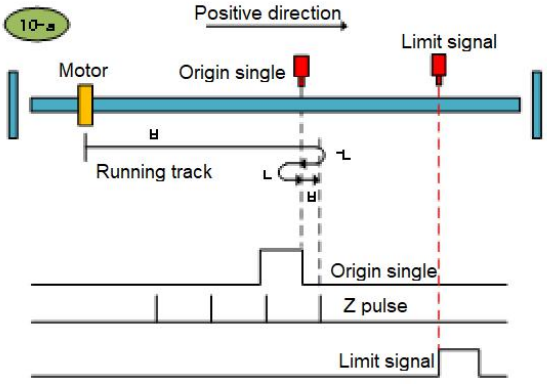
Origin zero back method 9-C

Origin zero back method 10

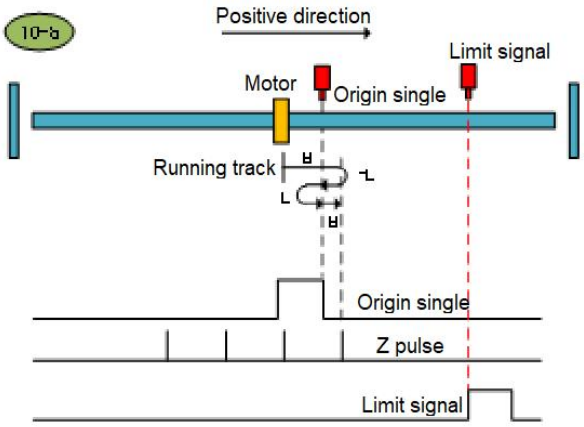
A.Start to return to the origin→Origin signal OFF→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Forward low speed search origin falling edge →Forward search Z pulse

B.Start to return to the origin→Origin signal ON→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Forward low speed search origin falling edge →Forward search Z pulse

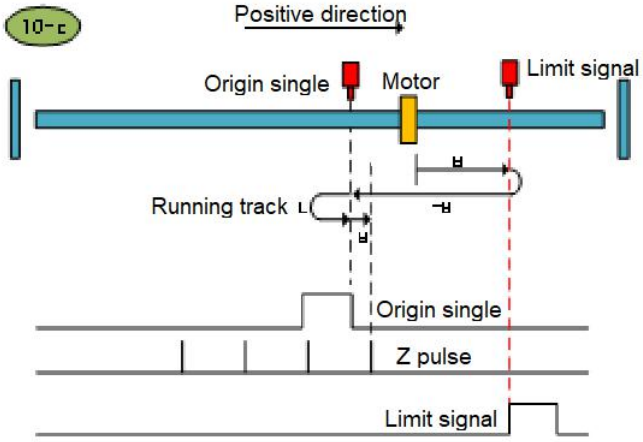
C.Start origin zero back→Origin OFF→Forward high speed search origin falling edge→Positive limit reached→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Forward search Z pulse



Origin zero back method 10-A



Origin zero back method 10-B



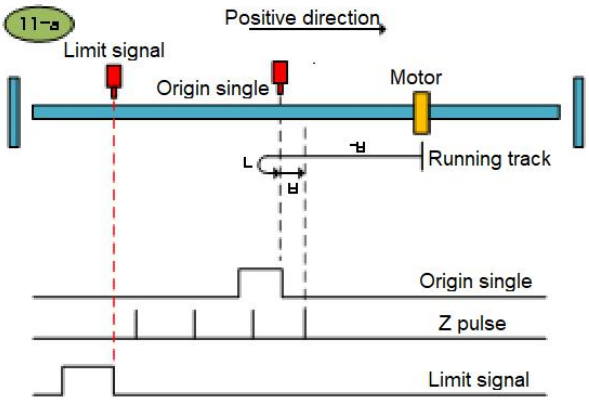
Origin zero back method 10-C

Origin zero back method 11

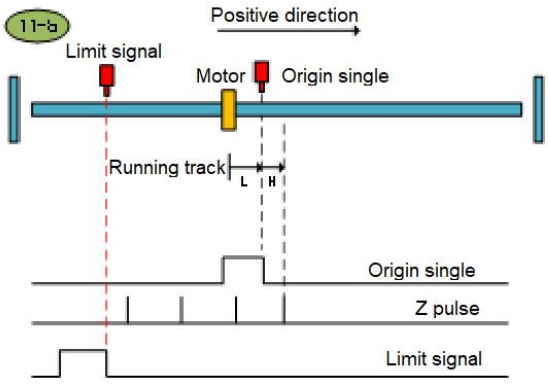
A.Origin start to return 0→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Forward search Z pulse

B.Origin start to return 0→Origin signal ON→Forward low speed search origin falling edge →Forward search Z pulse

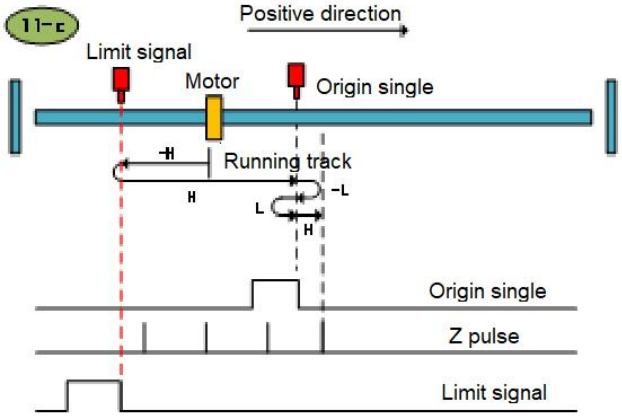
C.Origin start to return 0→Origin signal OFF→Reverse high speed search origin rising edge →Negative limit encountered→Forward high speed search origin signal falling edge→Slow down to 0→Reverse low speed search origin rising edge →Forward search Z pulse



Origin zero back method 11-A



Origin zero back method 11-B



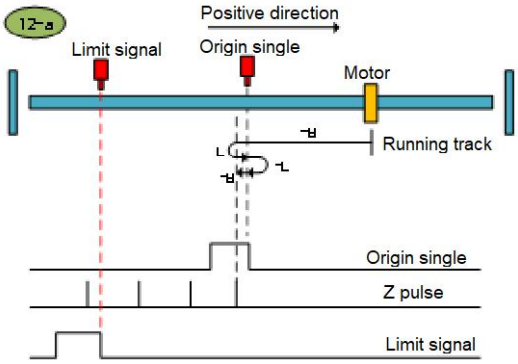
Origin zero back method 11-C

Origin zero back method 12

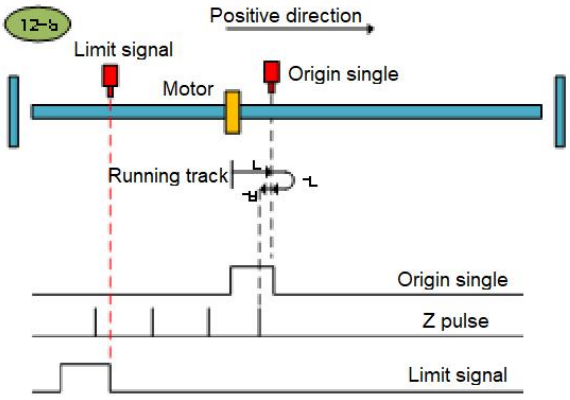
A.Origin return beginning→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge →Reverse search Z pulse

B.Origin return beginning→Origin signal ON→Forward low speed search origin falling edge →Reverse low speed search origin rising edge →Reverse search Z pulse

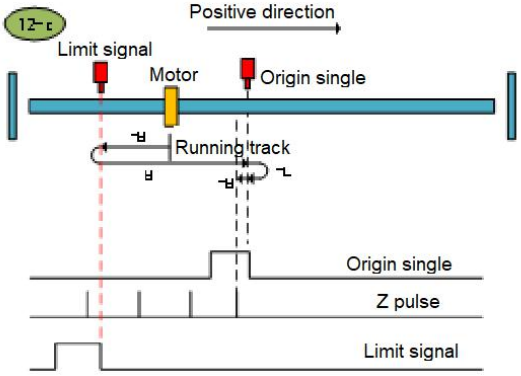
C.Origin return beginning→Origin signal OFF→Reverse high speed search origin rising edge →Negative limit encountered→Forward high speed search origin signal falling edge→Slow down to 0→Reverse low speed search origin rising edge →Reverse search Z pulse



Origin zero back method 12-A



Origin zero back method 12-B



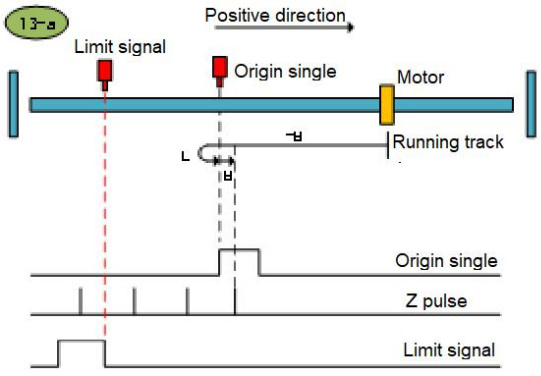
Origin zero back method 12-C

Origin zero back method 13

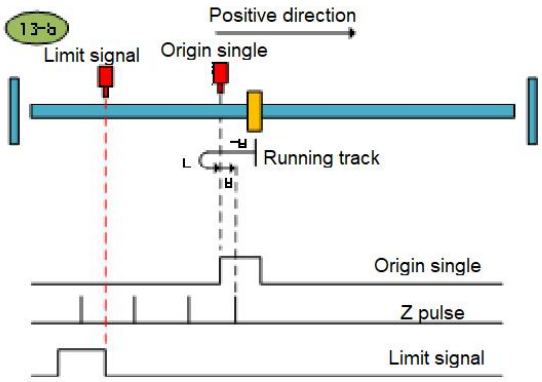
A.Origin start to return 0→Origin signal OFF→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Forward search Z pulse

B.Origin start to return 0→Origin signal ON→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Forward search Z pulse

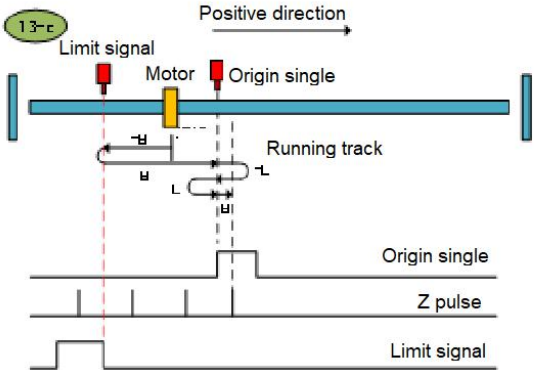
C.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Negative limit encountered→Forward high speed search origin signal rising edge→Slow down to 0→Reverse low speed search origin signal falling edge→Forward low speed search origin signal rising edge→Forward search Z pulse



Origin zero back method 13-A



Origin zero back method 13-B



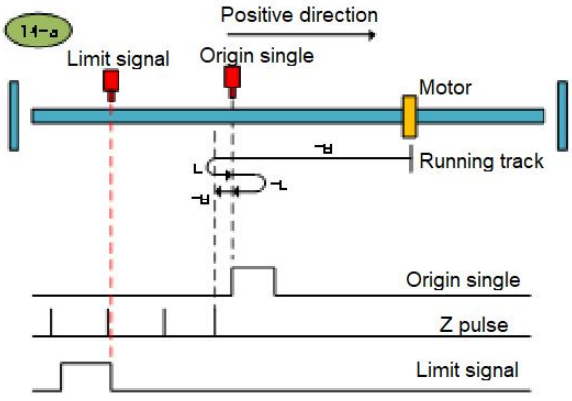
Origin zero back method 13-C

Origin zero back method 14

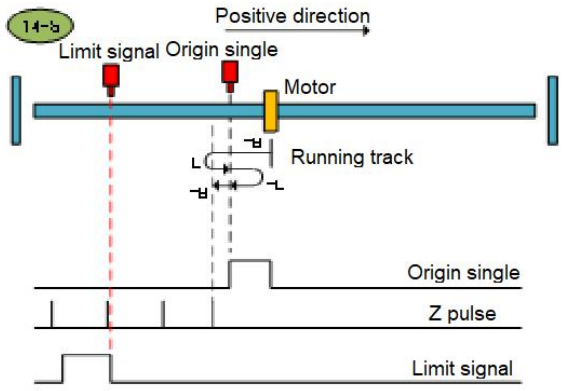
A.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge→Reverse search Z pulse

B.Origin return beginning→Origin signal ON→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge→Reverse search Z pulse

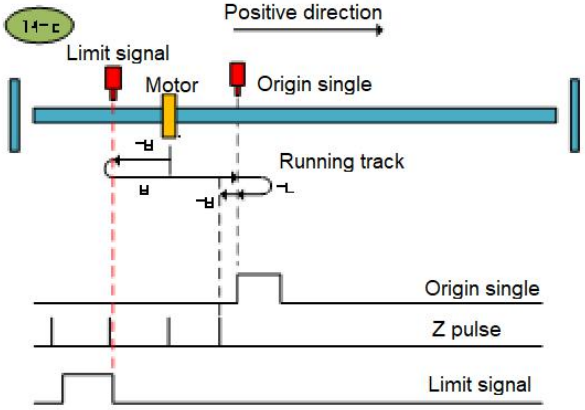
C.Origin start to return 0→Origin signal OFF→Reverse high speed search origin falling edge→Negative limit encountered→Forward high speed search origin signal rising edge→Slow down to 0→Reverse low speed search origin signal falling edge→Reverse search Z pulse



Origin zero back method 14-A



Origin zero back method 14-B



Origin zero back method 14-C

Origin zero back method 15

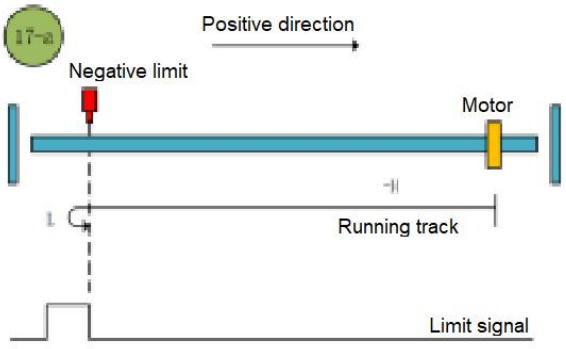
Reserved.

Origin zero back method 16

Reserved.

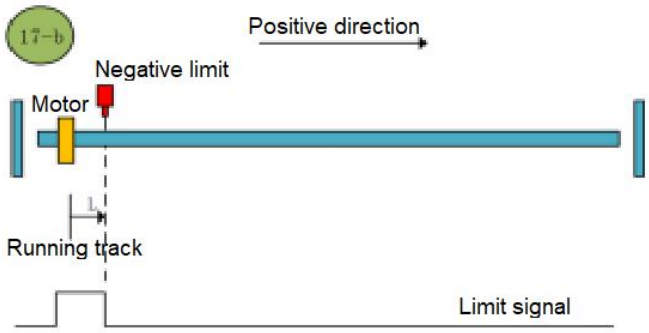
Origin zero back method 17

A.Start to return to the origin→Reverse high speed search negative limit→Negative limit rising edge encountered→Slow down to 0→Forward low speed search negative limit falling edge,then stop



Origin zero back method 17-A

B.Start to return to the origin→Negative limit valid→Forward low speed search negative limit falling edge,then stop

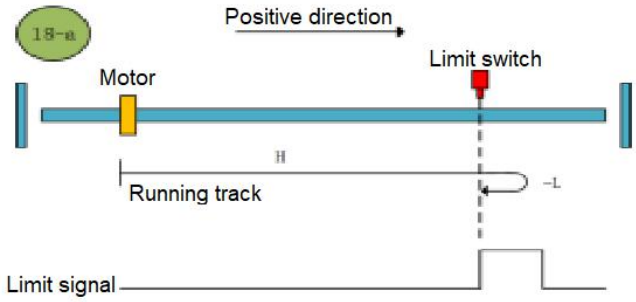


Origin zero back method 17- B

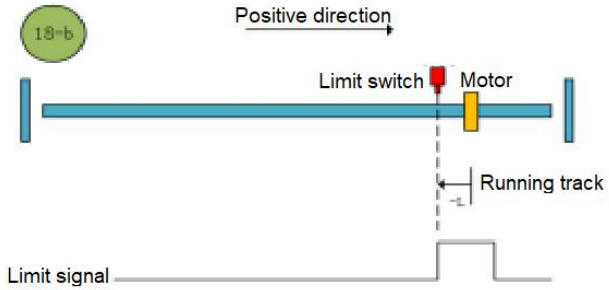
Origin zero back method 18

A.Start to return to the origin→Forward high speed search positive limit→Positive limit rising edge encountered→Slow down to 0→Reverse low speed search positive limit falling edge,then stop

B.Start to return to the origin→Positive limit valid→Reverse low speed search positive limit falling edge,then stop



Origin zero back method 18-A

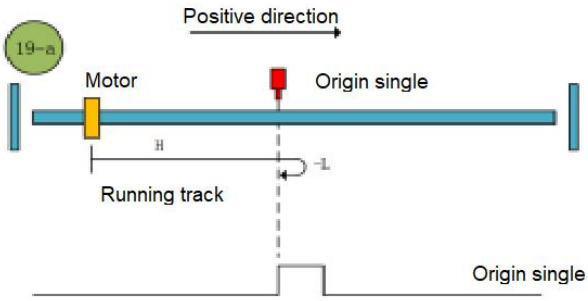


Origin zero back method 18-B

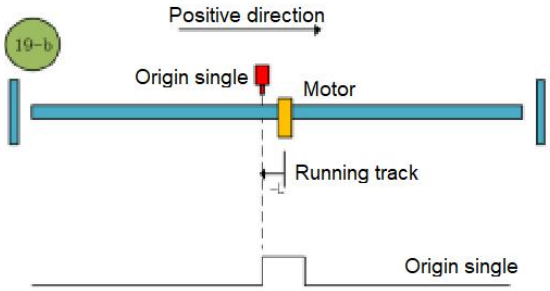
Origin zero back method 19

A.Start to return to the origin→Forward high speed search positive limit→Positive limit rising edge encountered→Slow down to 0→Reverse low speed search positive limit falling edge,then stop

B.Start to return to the origin→Positive limit valid→Reverse low speed search positive limit falling edge,then stop



Origin zero back method 19-A

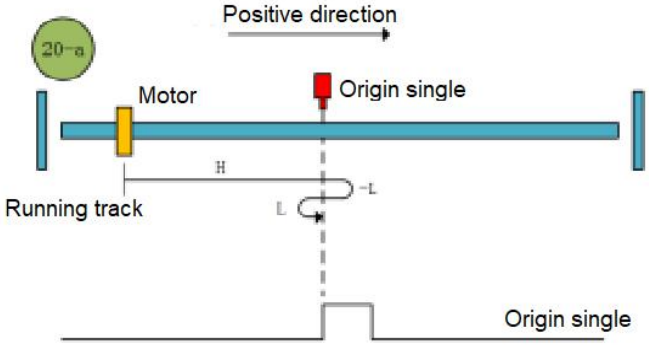


Origin zero back method 19-B

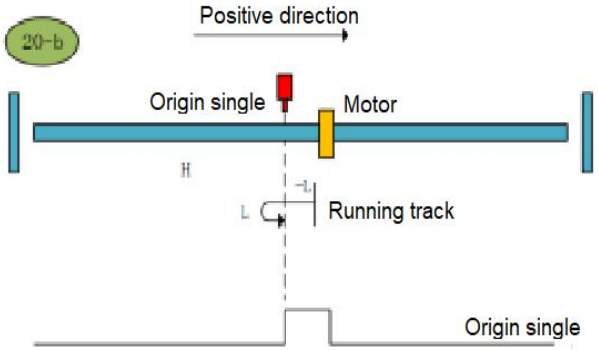
Origin zero back method 20

A.Start to return to the origin→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Reverse low speed search origin falling edge→Forward low speed search origin rising edge,then stop

B.Start to return to the origin→Origin signal ON→Reverse low speed search origin falling edge→Forward low speed search origin rising edge,then stop



Origin zero back method20-A

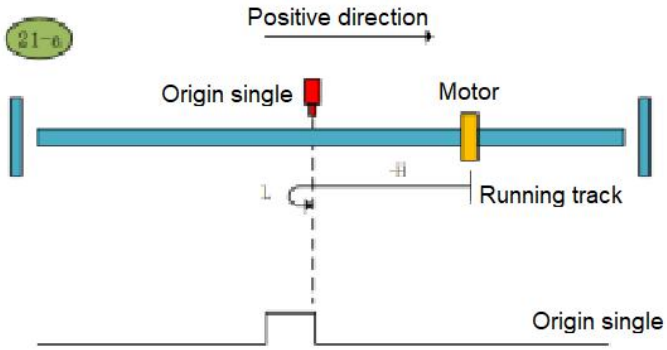


Origin zero back method 20-B

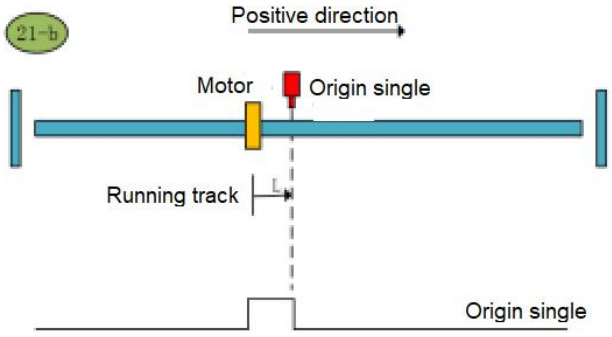
Origin zero back method 21

A.Start to return to the origin→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge,then stop

B.Start to return to the origin→Origin signal ON→Forward low speed search origin falling edge,then stop



Origin zero back method 21-A

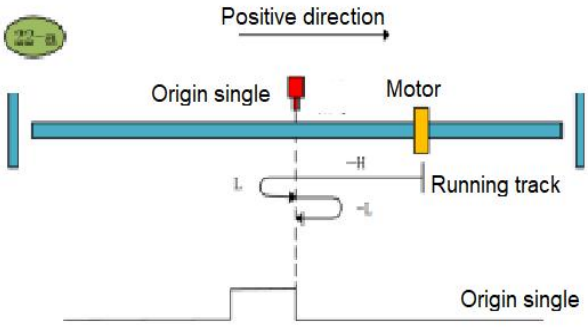


Origin zero back method 21-B

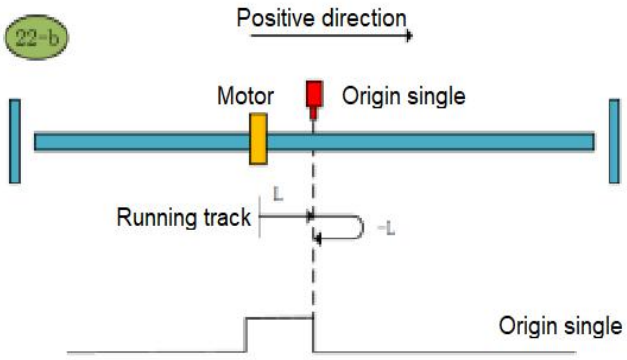
Origin zero back method 22

A. Start to return to the origin→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge,then stop

B. Start to return to the origin→Origin signal ON→Forward low speed search origin falling edge →Reverse low speed search origin rising edge,then stop



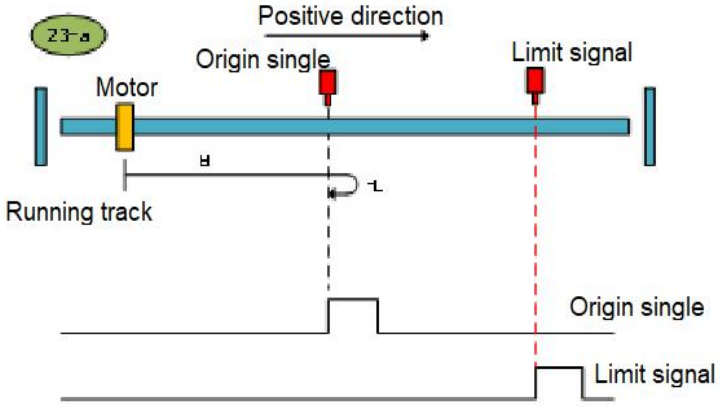
Origin zero back method 22-A



Origin zero back method 22-B

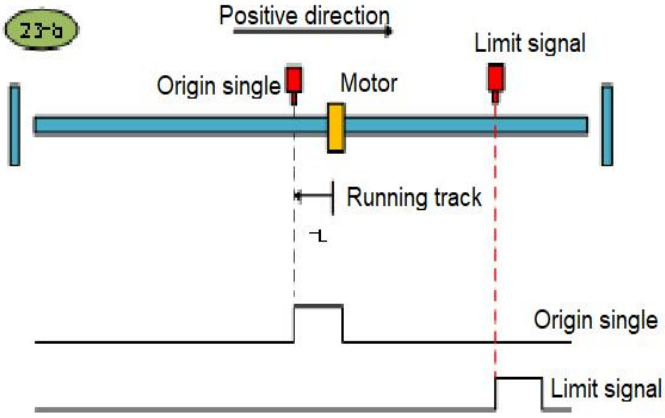
Origin zero back method 23

A.Start to return to the origin→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Reverse low speed search origin falling edge,then stop



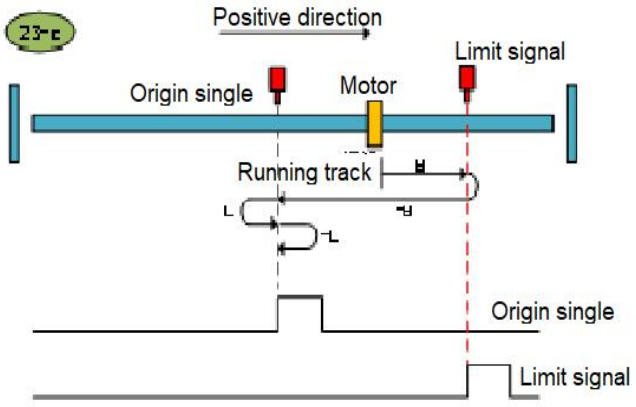
Origin zero back method 23-A

B.Start to return to the origin→Origin signal ON→Reverse low speed search origin falling edge,then stop



Origin zero back method 23-B

C.Start to return to the origin→Origin OFF→Forward high speed search origin rising edge →Positive limit reached→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge,then stop



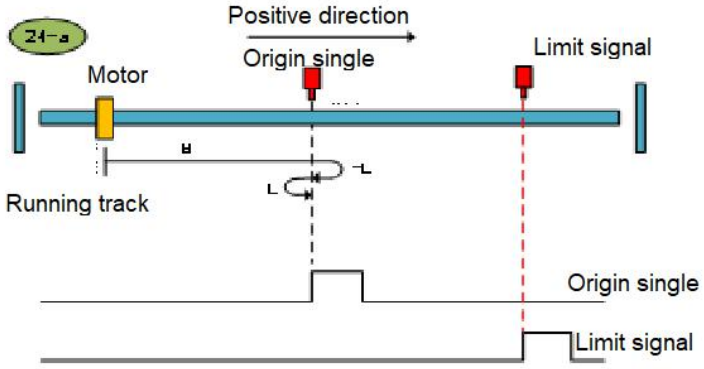
Origin zero back method 23-C

Origin zero back method 24

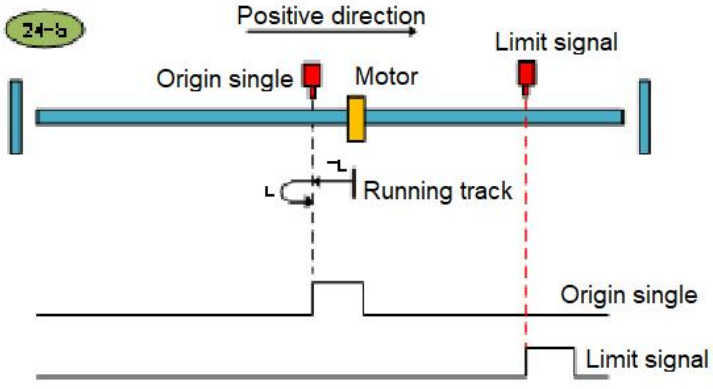
A.Start to return to the origin→Origin signal OFF→Forward high speed search origin rising edge →Slow down to 0→Reverse low speed search origin falling edge→Forward low speed search origin rising edge,then stop

B.Start to return to the origin→Origin signal ON→Reverse low speed search origin falling edge→Forward low speed search origin rising edge,then stop

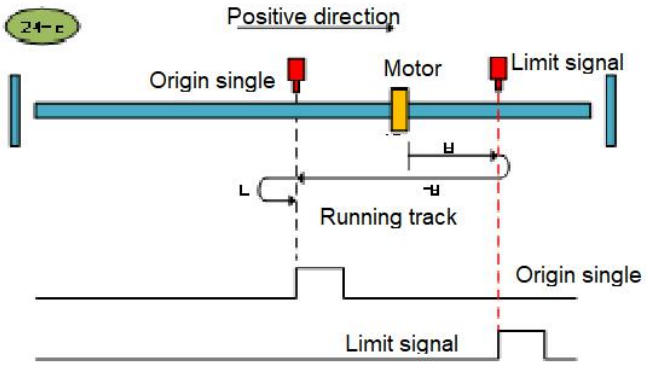
C.Start to return to the origin→Origin OFF→Forward high speed search origin rising edge →Positive limit reached→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge,then stop



Origin zero back method 24-A



Origin zero back method 24-B



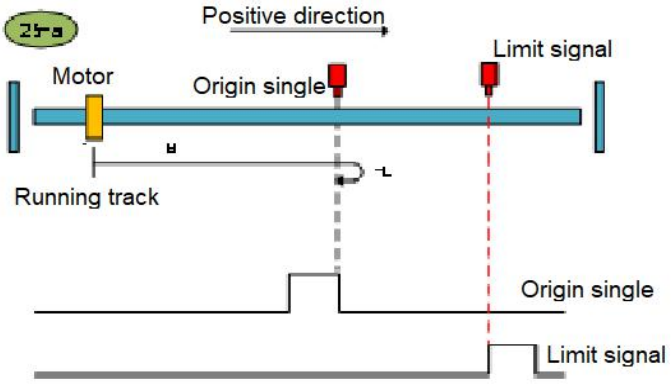
Origin zero back method 24-C

Origin zero back method 25

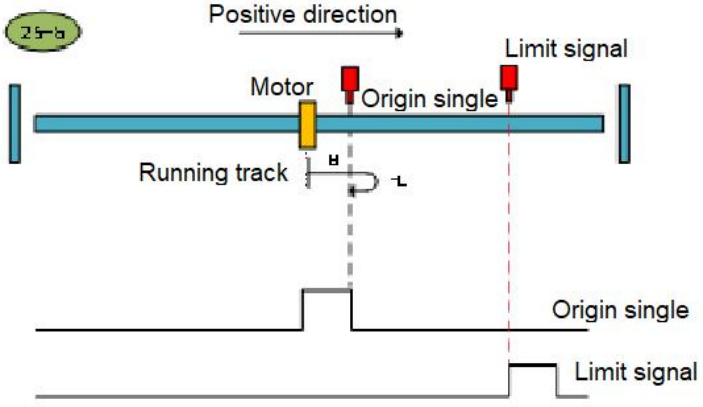
A.Start to return to the origin→Origin signal OFF→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge,then stop

B.Start to return to the origin→Origin signal ON→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge,then stop

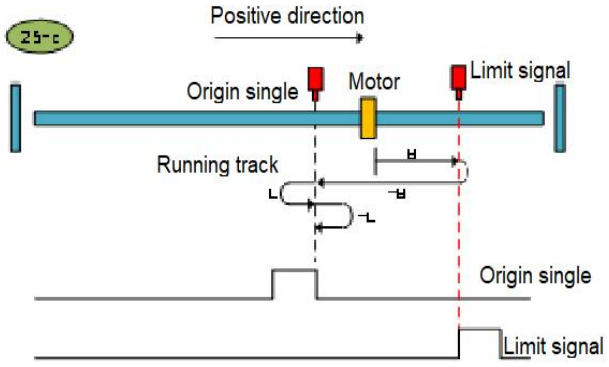
C.Start to return to the origin→Origin OFF→Forward high speed search origin falling edge→Positive limit reached→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge,then stop



Origin zero back method 25-A



Origin zero back method 25-B



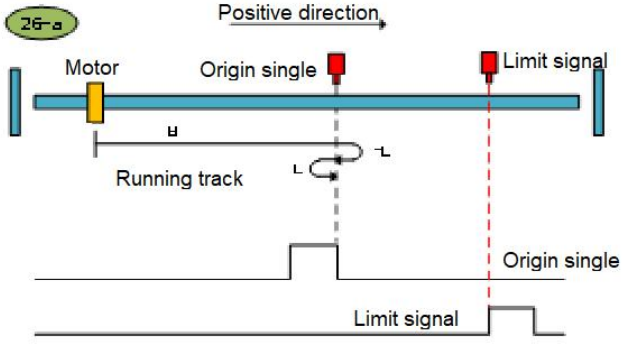
Origin zero back method 25-C

Origin zero back method 26

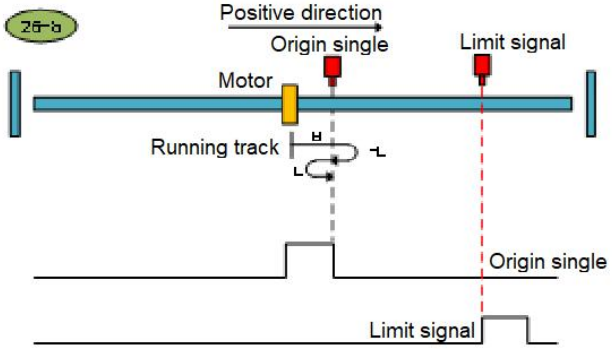
A.Start to return to the origin→Origin signalOFF→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Forward low speed search origin falling edge,then stop

B.Start to return to the origin→Origin signalON→Forward high speed search origin falling edge→Slow down to 0→Reverse low speed search origin rising edge →Forward low speed search origin falling edge,then stop

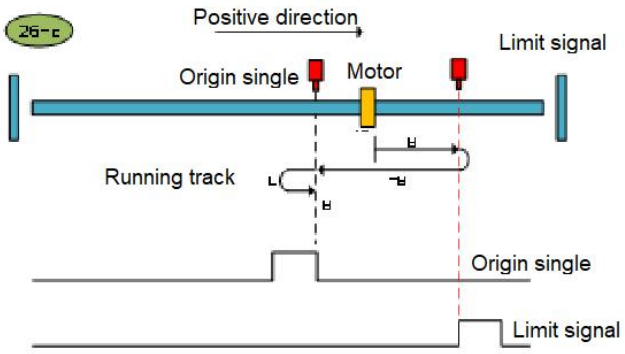
C.Start to return to the origin→OriginOFF→Forward high speed search origin falling edge→Positive limit reached→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge,then stop



Origin zero back method 26-A



Origin zero back method 26-B



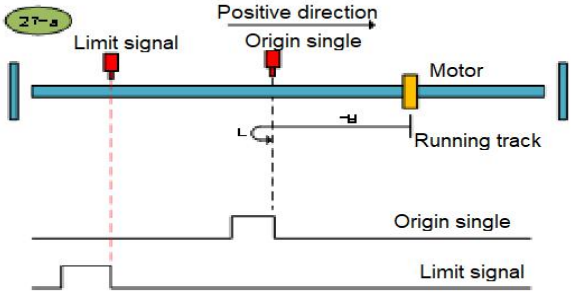
Origin zero back method 26-C

Origin zero back method 27

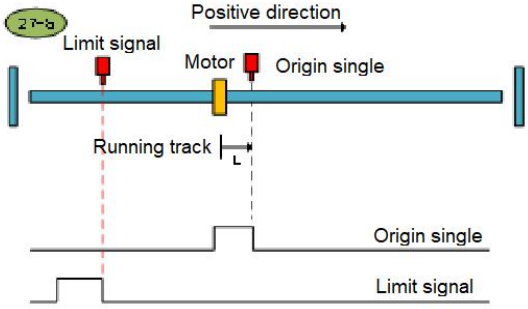
A.Origin return beginning→Origin s Positive direction everse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge,then stop

B.Origin return beginning→Origin signal ON→Forward low speed search origin falling edge,then stop

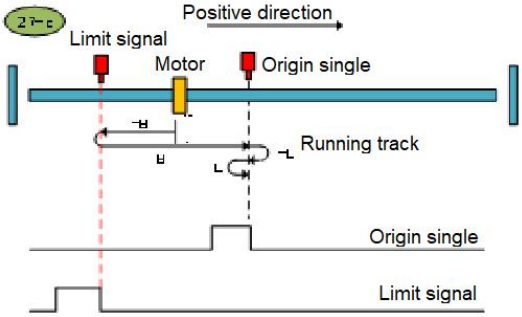
C.Origin return beginning→Origin signal OFF→Reverse high speed search origin rising edge →Negative limit encountered→Forward high speed search origin signal falling edge→Slow down to 0→Reverse low speed search origin rising edge,then stop



Origin zero back method 27-A



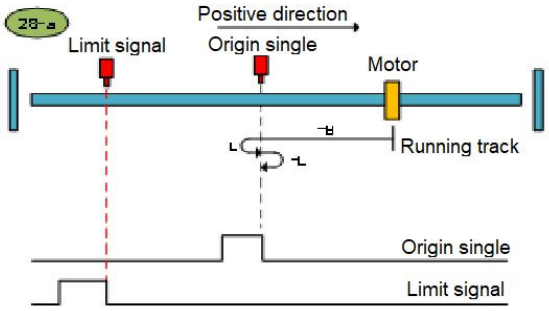
Origin zero back method 27-B



Origin zero back method 27-C

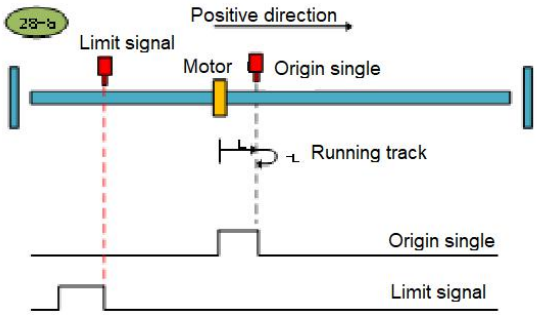
Origin zero back method 28

A.Origin return beginning→Origin signal OFF→Reverse high speed search origin rising edge →Slow down to 0→Forward low speed search origin falling edge →Reverse low speed search origin rising edge,then stop



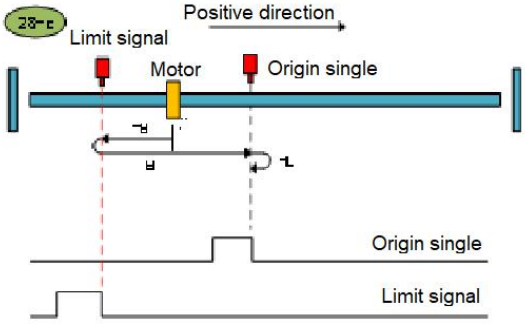
Origin zero back method 28-A

B.Origin return beginning→Origin signal ON→Forward low speed search origin falling edge →Reverse low speed search origin rising edge,then stop



Origin zero back method 28-B

C.Origin return beginning→Origin signal OFF→Reverse high speed search origin rising edge →Negative limit encountered→Forward high speed search origin signal falling edge→Slow down to 0→Reverse low speed search origin rising edge,then stop



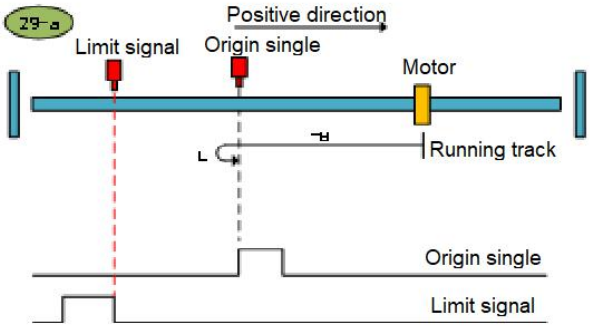
Origin zero back method 28-C

Origin zero back method 29

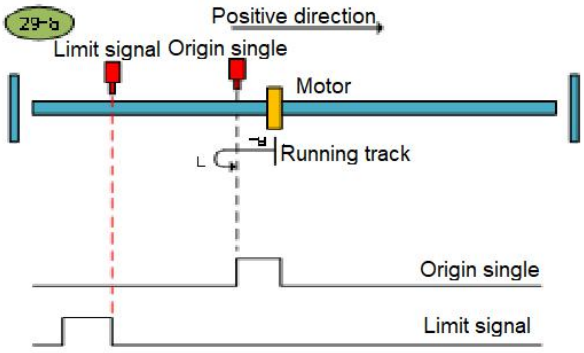
A.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge,then stop

B.Origin return beginning→Origin signal ON→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge,then stop

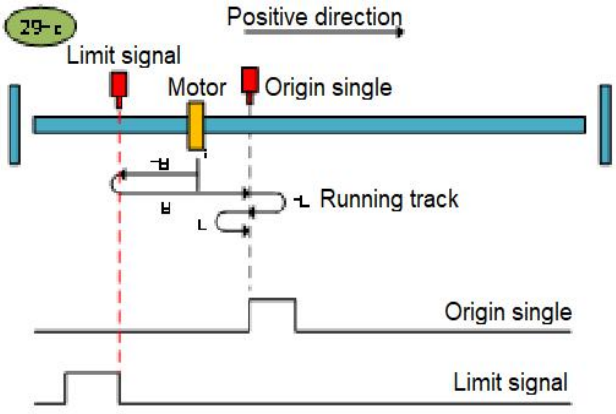
C.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Negative limit encountered→Forward high speed search origin signal rising edge→Slow down to 0→Reverse low speed search origin signal falling edge→Forward low speed search origin signal rising edge,then stop



Origin zero back method 29-A



Origin zero back method 29-B



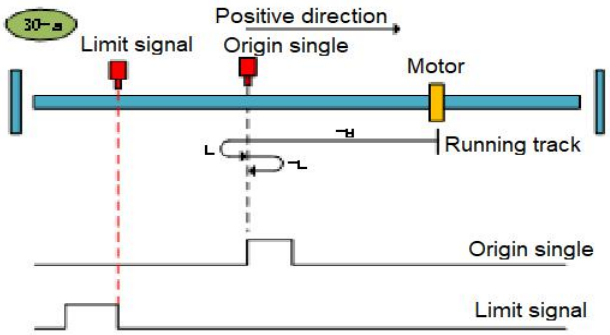
Origin zero back method 29-C

Origin zero back method 30

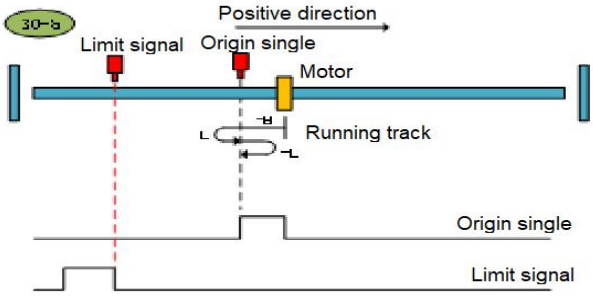
A.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge,then stop

B.Origin return beginning→Origin signal ON→Reverse high speed search origin falling edge→Slow down to 0→Forward low speed search origin rising edge →Reverse low speed search origin falling edge,then stop

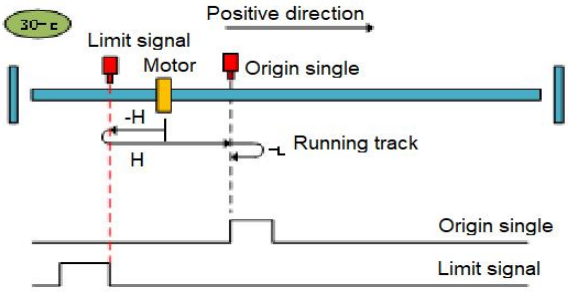
C.Origin return beginning→Origin signal OFF→Reverse high speed search origin falling edge→Negative limit encountered→Forward high speed search origin signal rising edge→Slow down to 0→Reverse low speed search origin signal falling edge,then stop



Origin zero back method 30-A



Origin zero back method 30-B



Origin zero back method 30-C

Origin zero back method 31

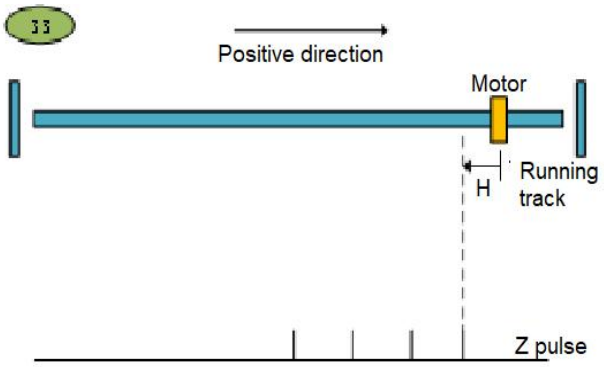
Reserved

Origin zero back method 32

Reserved

Origin zero back method 33

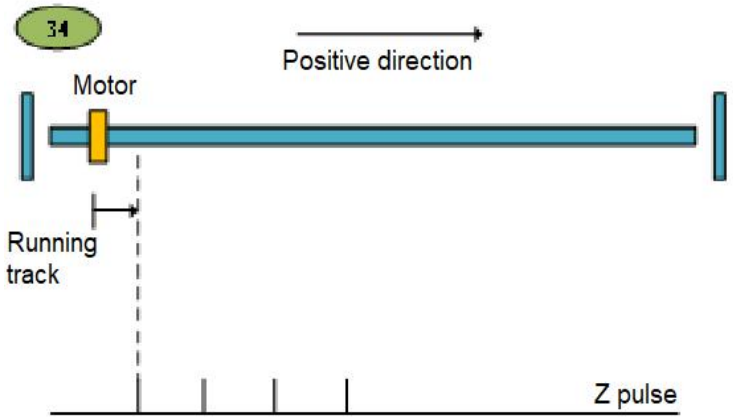
Origin start to return 0→Find the first Z pulse in the negative direction



Origin zero back method 33

Origin zero back method 34

Origin start to return 0→Find the first Z pulse in the positive direction



Origin zero back method 34

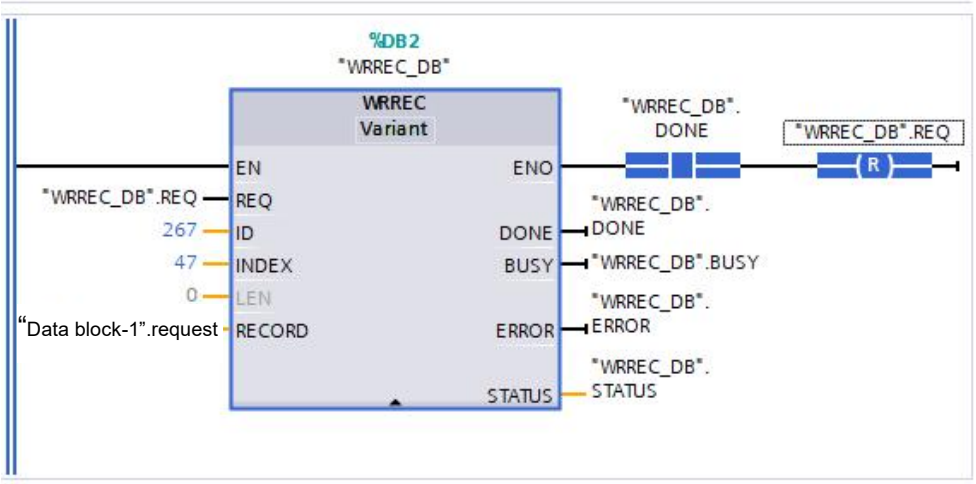
Origin zero back method 35

After triggering back to zero, take the current position as the mechanical origin. After returning to zero, the current feedback position is the origin offset value.

Origin bias

WRREC can write and store the Origin offset value. After origin regression, the feedback position is the Origin bias value. The following is an example of write Origin offset operation.

Static							
Request	Struct			☑	☑	☑	
Request Reference	Byte	16#1		☑	☑	☑	
Request ID	Byte	16#2		☑	☑	☑	
Axis ID	Byte	16#1		☑	☑	☑	
Parameters number	Byte	16#1		☑	☑	☑	
Attribute	Byte	16#10		☑	☑	☑	
Number of Elements	Byte	16#0		☑	☑	☑	
Parameter	Int	12612		☑	☑	☑	
Subindex	Int	0		☑	☑	☑	
Write Format	Byte	16#43		☑	☑	☑	
Write Values numb...	Byte	16#1		☑	☑	☑	
Write Value	DInt	989078		☑	☑	☑	



If the servo function code PnA34 is the origin offset value, the WRREC access parameter value is 0xA34 + 10000 = 12612.