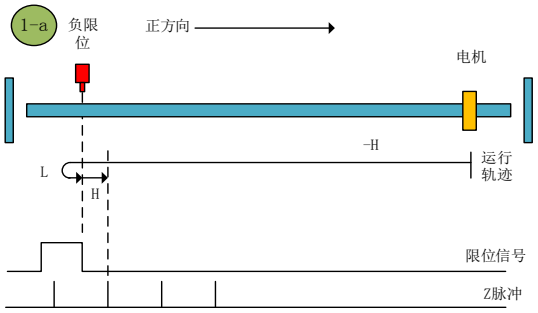
Introduction to the zero return method:

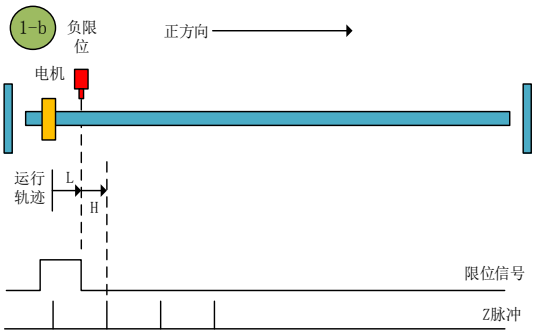
Zero return mode 1 (6098 00h=1)

a Start zero return → Reverse high speed to find negative limit → Hit negative limit rising edge → Deceleration to 0 → Forward low speed to find negative limit falling edge → Forward to find Z pulse



Zero return method 1-a

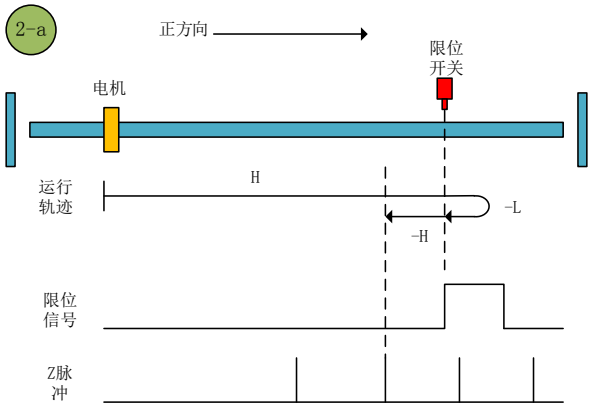
b Start origin return → Negative limit valid → Positive low speed find negative limit falling edge → Forward find Z pulse



Zero return method 1-b

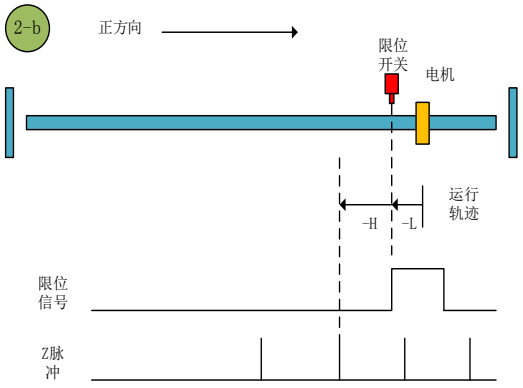
Zero return mode 2 (6098 00h = 2)

a Start zero return → Forward high speed correction limit → Hit the positive limit rising edge → Decelerate to 0 → Reverse low speed correction limit falling edge → Reverse find Z pulse



Zero return method 2-a

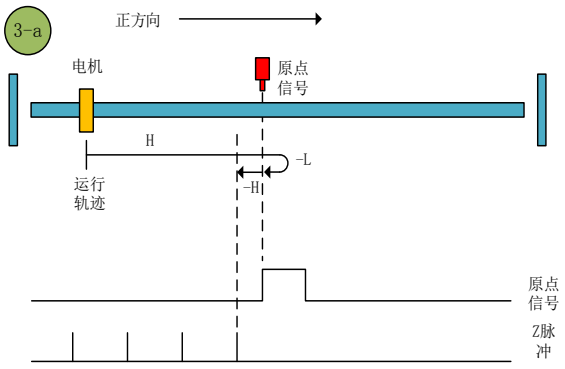
b Start the origin return → positive limit valid → reverse low speed correction limit falling edge → reverse find Z pulse



Origin return mode 2-b

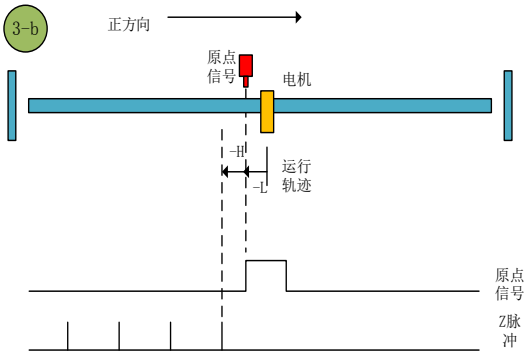
Zero return mode 3 (6098 00h = 3)

a. Start origin return to zero → Origin signal is OFF → Forward high speed finds the origin signal rising edge → Deceleration to 0 → Reverse low speed finds the origin signal falling edge → Reverse finds Z pulse



Origin return mode 3-a

b. Start origin return to zero → origin signal ON → reverse low speed to find the origin falling edge → reverse find Z pulse

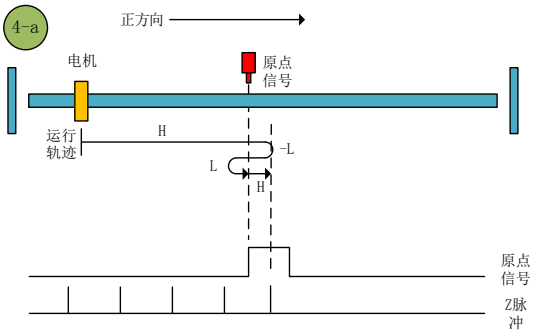


Origin return mode 3-b

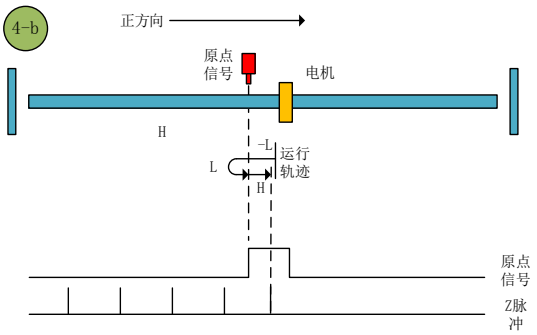
Zero return mode 4 (6098 00h = 4)

a. Start zero return → Origin signal OFF → Forward high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Forward to find Z pulse.

b. Start the origin return → origin signal ON → reverse low speed to find the origin falling edge → positive low speed to find the origin rising edge → forward find Z pulse



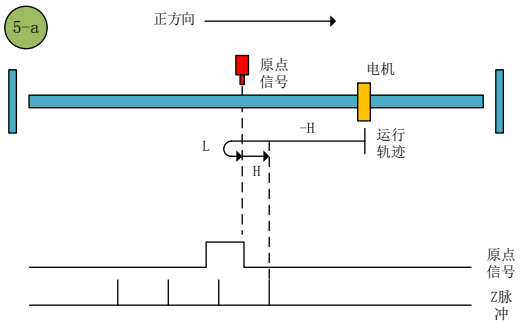
Origin return mode 4-a



Origin return mode 4-b

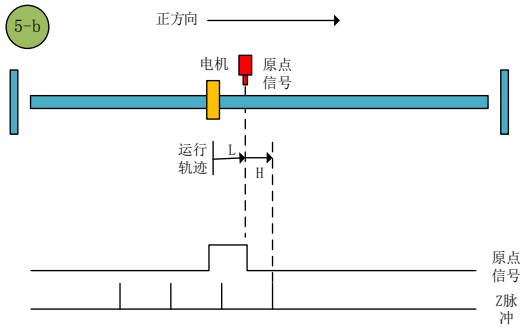
Zero return mode 5 (6098 00h = 5)

a. Start origin return to zero → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Forward to find Z pulse



Zero return method 5-a

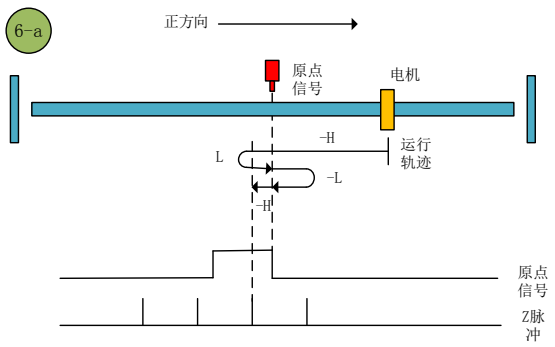
b. Start origin return to zero → origin signal ON → forward low speed to find the origin falling edge → forward find Z pulse



Origin return mode 5-b

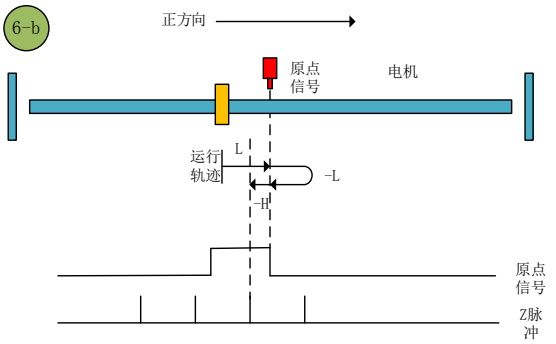
Origin return mode 6 (6098 00h = 6)

a. Start OPR → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Reverse low speed to find the origin rising edge → Reverse to find Z pulse



Origin return mode 6-a

b. Start the origin return → the origin signal ON → the forward low speed to find the origin falling edge → the reverse low speed to find the origin rising edge → reverse to find the Z pulse



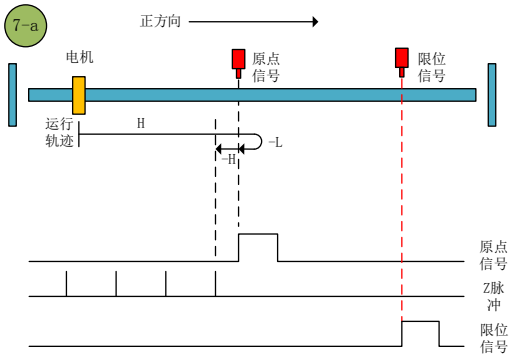
Origin return mode 6-b

Zero return mode 7 (6098 00h = 7)

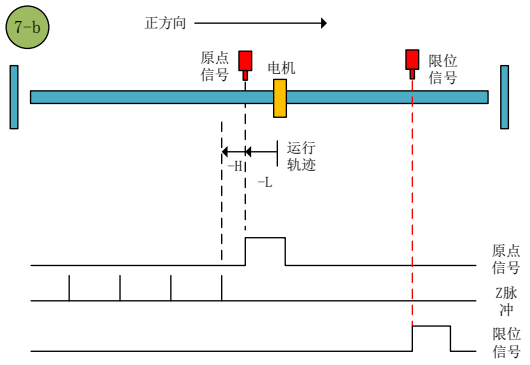
a. Start zero return → Origin signal OFF → Forward high speed to find the origin rising edge → Deceleration to 0 → Reverse low speed to find the origin falling edge → Reverse to find Z pulse

b. Start zero return → origin signal ON → reverse low speed to find the origin falling edge → reverse find Z pulse

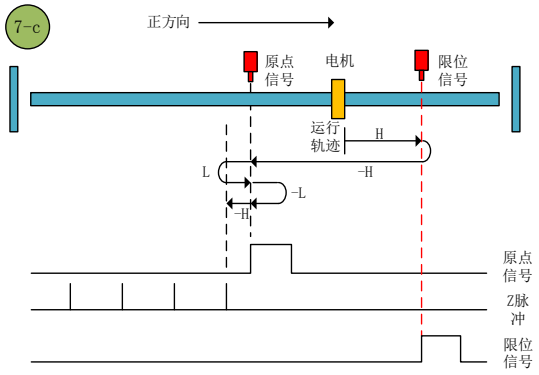
c. Start zero return → origin OFF → forward high speed to find the origin rising edge → hit the positive limit → reverse high speed to find the origin falling edge → decelerate to 0 → forward low speed to find the origin rising edge → reverse low speed to find the origin Find Z pulse along → reverse



Zero return method 7-a



Origin return mode 7-b



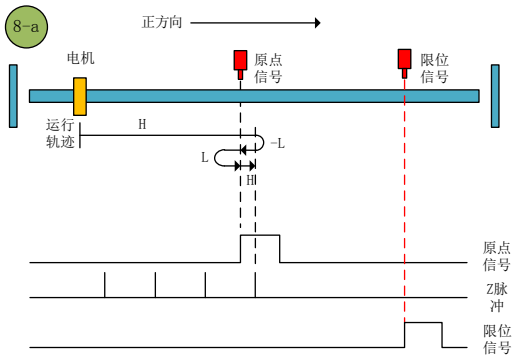
Origin return mode 7-c

Origin return mode 8 (6098 00h = 8)

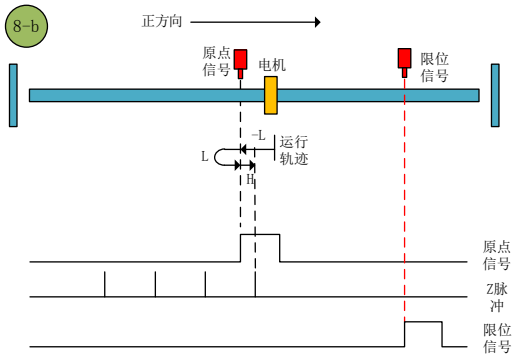
a. begin zeroing origin point signal → OFF → positive → rising speed seek decelerate to the origin 0 → → reverse slow to find the falling edge of positive origin to find the origin of the rising edge of the low-speed forward looking → Z pulse

b. Start zero return → origin signal ON → reverse low speed to find the origin falling edge → positive low speed to find the origin rising edge → forward find Z pulse

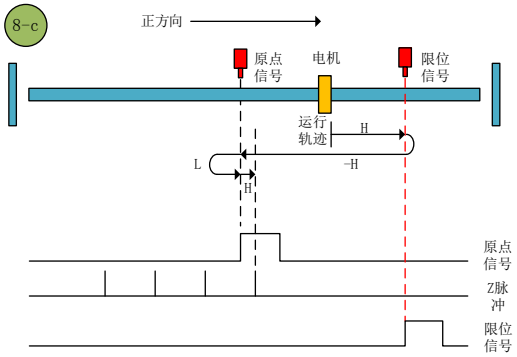
c. Start zero return → origin OFF → forward high speed to find the origin rising edge → hit the positive limit → reverse high speed to find the origin falling edge → decelerate to 0 → forward low speed to find the origin rising edge → forward find Z pulse



Origin return mode 8-a



Origin return mode 8-b



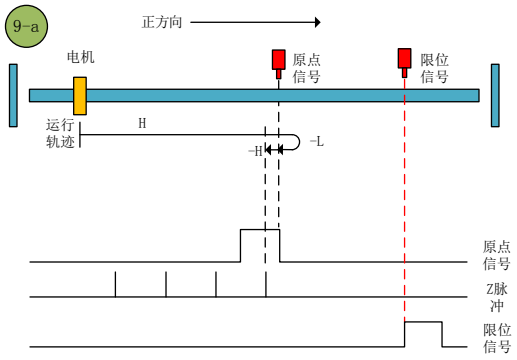
Origin return mode 8-c

Zero return mode 9 (6098 00h = 9)

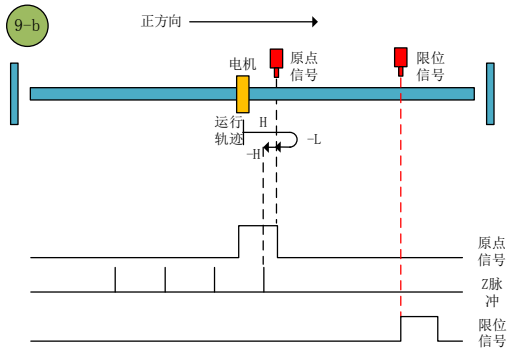
a. Start zero return → Origin signal OFF → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge → Reverse to find Z pulse

b. Start zero return → origin signal ON → forward high speed to find the origin falling edge → decelerate to 0 → reverse low speed to find the origin rising edge → reverse find Z pulse

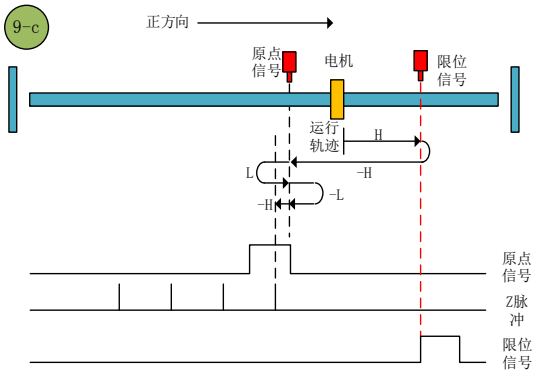
c. Start origin return → origin OFF → forward high speed to find the origin falling edge → hit the positive limit → reverse high speed to find the origin rising edge → decelerate to 0 → forward low speed to find the origin falling edge → reverse low speed to find the origin rising edge →Reverse looking for Z pulse



Zero return method 9-a



Zero return method 9-b



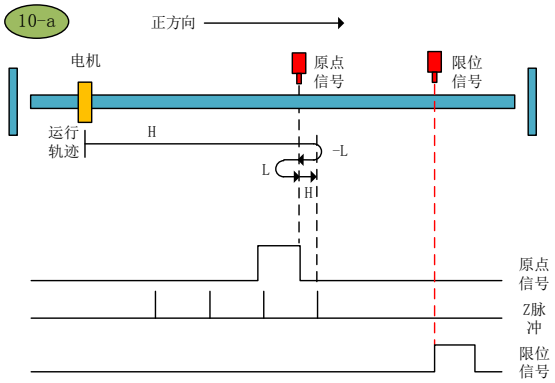
Zero return method 9-c

Zero return mode of origin 10 (6098 00h = 10)

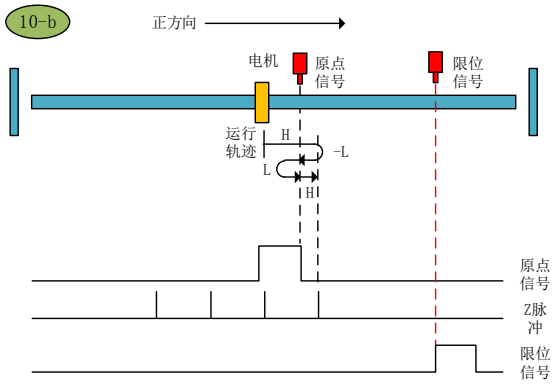
a. Start origin return → Origin signal OFF → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge → Forward low speed to find the origin falling edge → Forward to find Z pulse

b. Start origin return → origin signal ON → forward high speed to find the origin falling edge → decelerate to 0 → reverse low speed to find the origin rising edge → positive low speed to find the origin falling edge → forward find Z pulse

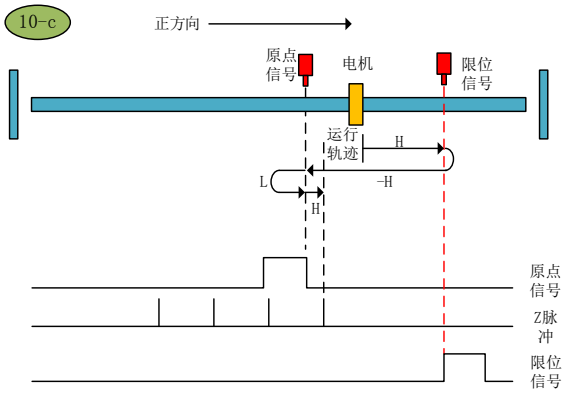
c. Start zero return → origin OFF → forward high speed to find the origin falling edge → hit the positive limit → reverse high speed to find the origin rising edge → decelerate to 0 → forward low speed to find the origin falling edge → forward find Z pulse



Zero return method 10-a



Zero return method 10-b



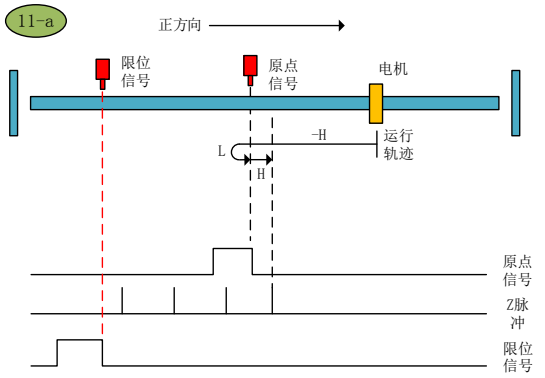
Zero return method of origin 0 -c

Zero return mode of origin (6098 00h = 11)

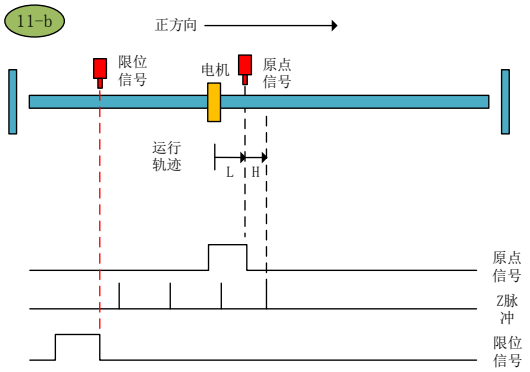
a. Origin return to zero → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Forward to find Z pulse

b. Origin return to zero → Origin signal ON → Forward low speed to find the origin falling edge → Forward to find Z pulse

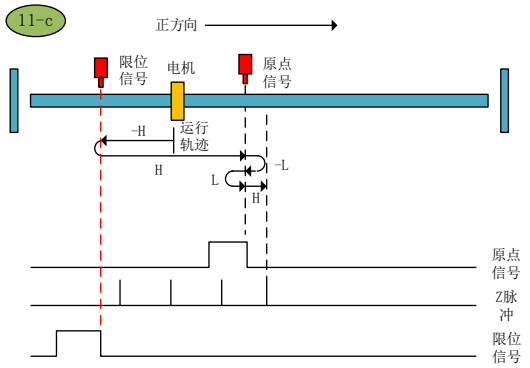
c. Origin return to zero → Origin signal OFF → Reverse high speed to find the origin rising edge → Hit the negative limit → Forward high speed to find the origin signal falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge → Forward to find Z pulse



Origin return mode 11-a



Origin return mode 11-b



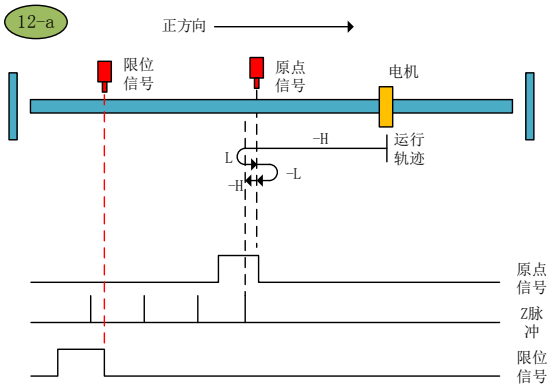
Origin return mode 11-c

Zero return mode of origin 12 (6098 00h = 12)

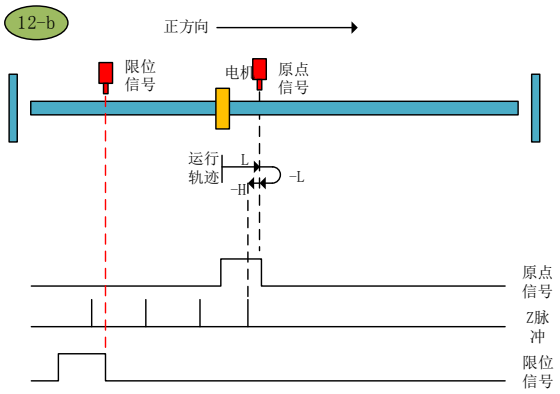
a. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Reverse low speed to find the origin rising edge → Reverse to find the Z pulse

b. Origin return start → Origin signal ON → Forward low speed find origin falling edge → Reverse low speed find origin rising edge → Reverse find Z pulse

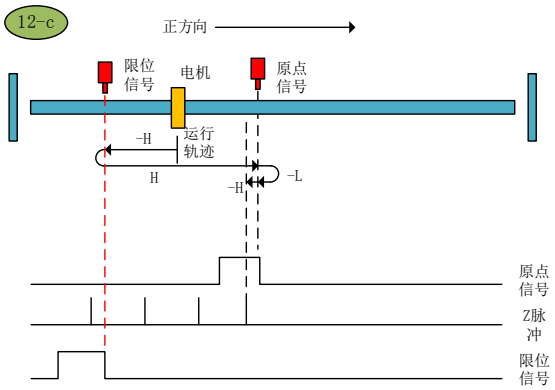
c. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Hit the negative limit → Forward high speed to find the origin signal falling edge → Decelerate to 0 → Reverse low speed find the origin rising edge → Reverse find Z pulse



Zero return method 12-a



Zero return method 12-b



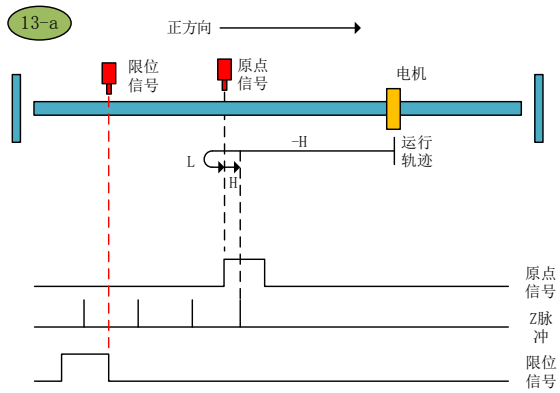
Zero return method 12-c

Zero return method of origin (6098 00h = 13)

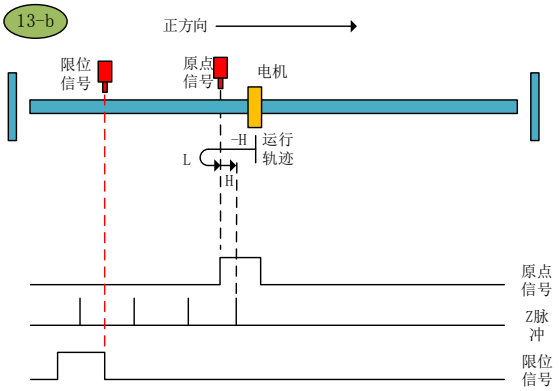
a. Origin return to zero → Origin signal OFF → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Forward to find Z pulse

b. Origin return to zero → Origin signal ON → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Forward to find Z pulse

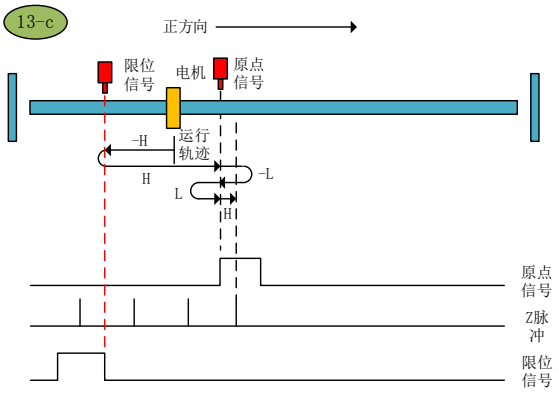
c. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Hit the negative limit → Forward high speed to find the origin signal rising edge → Decelerate to 0 → Reverse low speed to find the origin signal falling edge → Forward low speed Origin signal rising edge → positive looking Z pulse



Origin return mode 13-a



Origin return mode 13-b



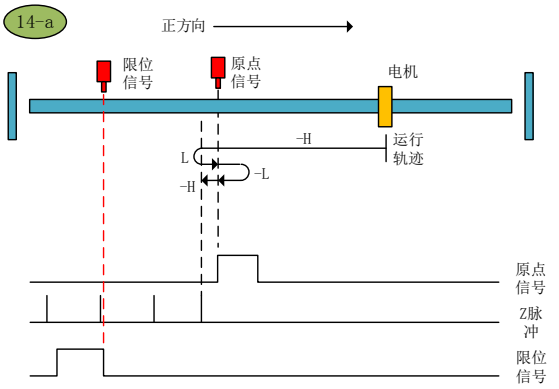
Origin return mode 13-c

Zero return method of origin (6098 00h = 14)

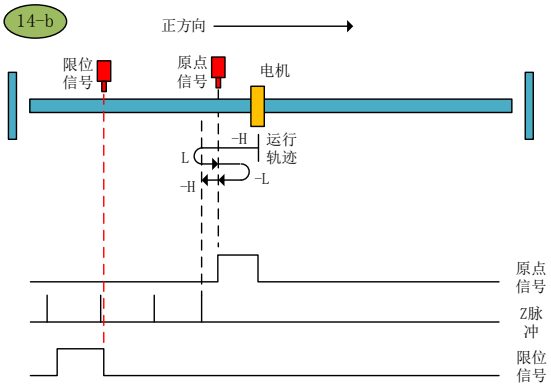
a. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Reverse low speed to find the origin falling edge → Reverse to find the Z pulse

b. Origin return start → Origin signal ON → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Reverse low speed to find the origin falling edge → Reverse to find Z pulse

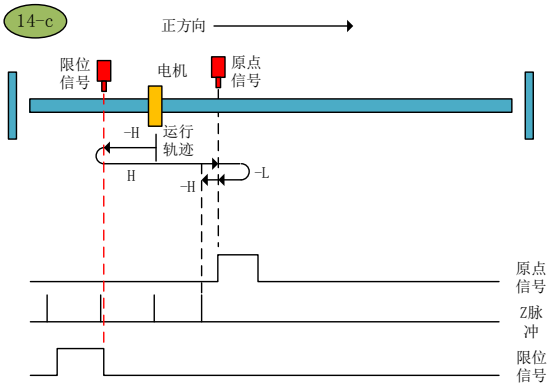
c. Origin return to zero → Origin signal OFF → Reverse high speed to find the origin falling edge → Hit the negative limit → Forward high speed to find the origin signal rising edge → Deceleration to 0 → Reverse low speed to find the origin signal falling edge → Reverse looking Z pulse



Origin return mode 14-a



Origin return mode 14-b



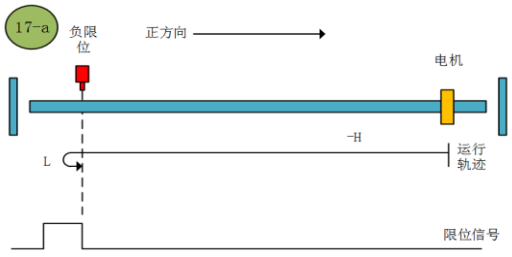
Origin return mode 14-c

Home zero return mode 15 (6098 00h = 15): Reserved.

Home zero return mode 16 (6098 00h = 16): Reserved.

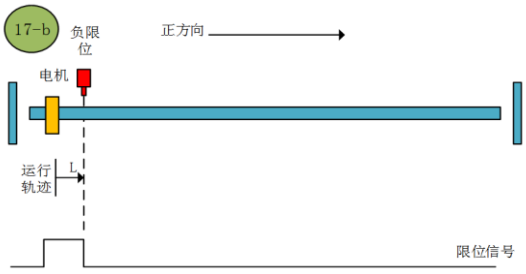
Zero return mode 17 (6098 00h = 17)

a. Start the origin return → reverse high speed to find the negative limit → hit the negative limit rising edge → decelerate to 0 → forward low speed to find the negative limit after the falling edge



Origin return mode 17-a

b. Start origin return → Negative limit is valid → Positive low speed finds negative limit and stops after falling

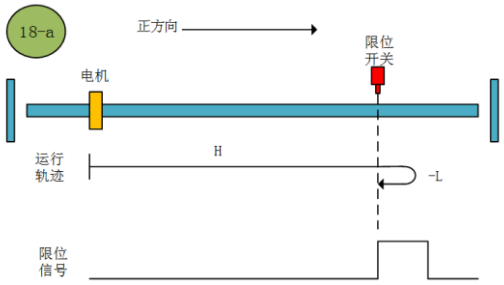


Origin return mode 17-b

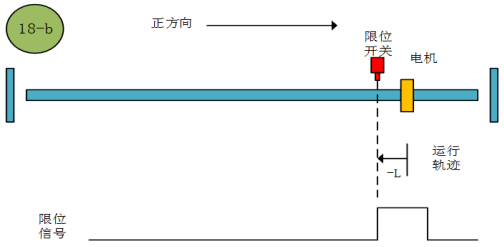
Zero return method of origin (6098 00h = 18)

a. Start the origin return → positive high speed correction limit → hit the positive limit rising edge → decelerate to 0 → reverse low speed to find the positive limit falling edge and stop

b. Start origin return → positive limit valid → reverse low speed correction limit



Zero return method 18-a

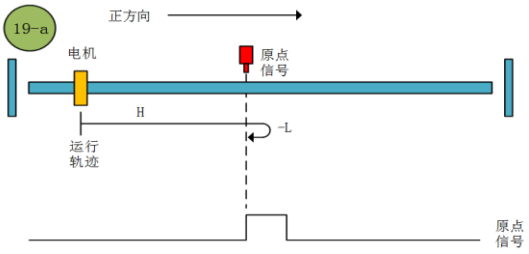


Zero return method 18-b

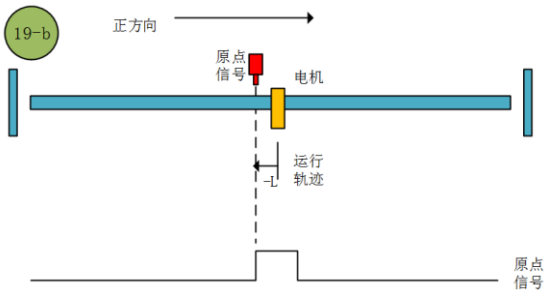
Zero return mode of origin 19 (6098 00h = 19)

a. Start the origin return → positive high speed correction limit → hit the positive limit rising edge → decelerate to 0 → reverse low speed to find the positive limit falling edge and stop

b. Start origin return → positive limit valid → reverse low speed correction limit



Zero return method 19-a

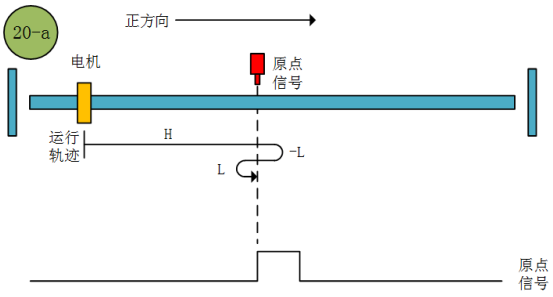


Zero return method 19-b

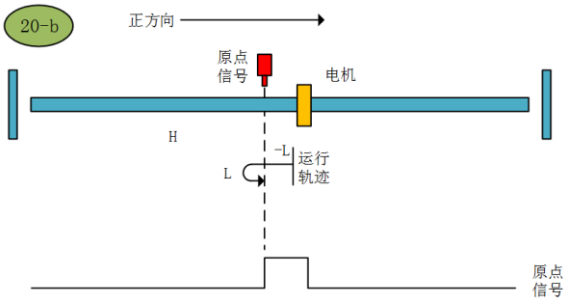
Zero return method of origin (6098 00h = 20)

a. Start OPR → Origin signal OFF → Forward high speed to find the origin rising edge → Deceleration to 0 → Reverse low speed to find the origin falling edge → Forward low speed to find the origin rising edge and stop

b. Start origin return → origin signal ON → reverse low speed to find the origin falling edge → positive low speed to find the original point rising edge and stop



Zero return method 20-a

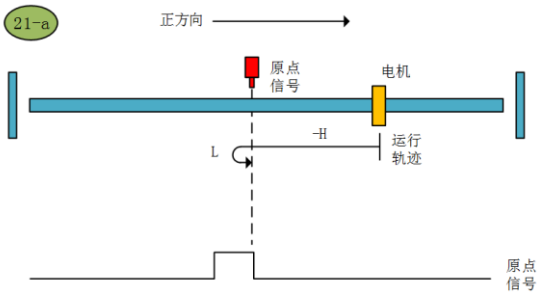


Origin return mode 20-b

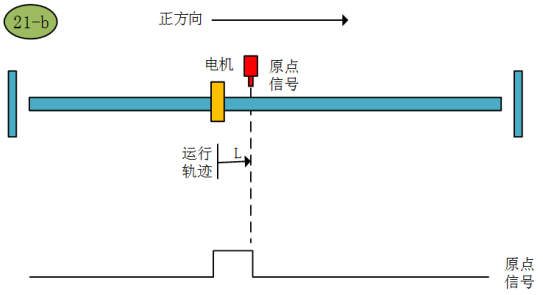
Zero return method of origin (6098 00h = 21)

a. Start OPR → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge and stop

b. Start OPR → Origin signal ON → Stop at low speed and find the falling edge of the origin



Origin return mode 21-a

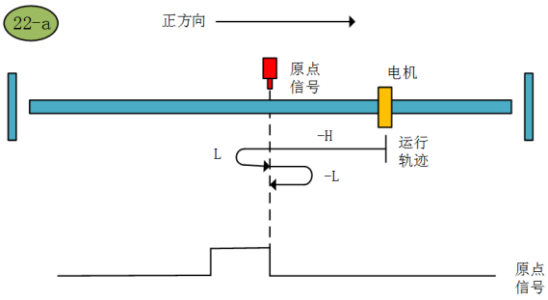


Origin return mode 21-b

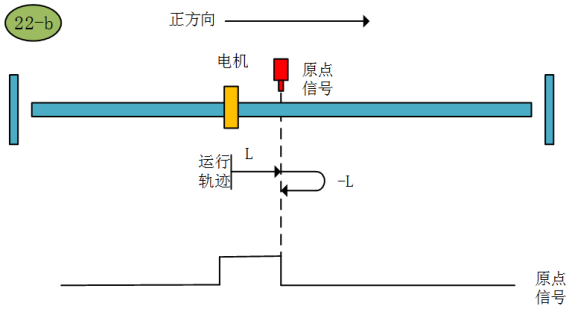
Origin return mode 22 (6098 00h = 22)

a Start OPR → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Reverse low speed to find the origin rising edge and stop

b Start the origin return → the origin signal ON → the forward low speed finds the origin falling edge → the reverse low speed finds the origin rising edge and stops



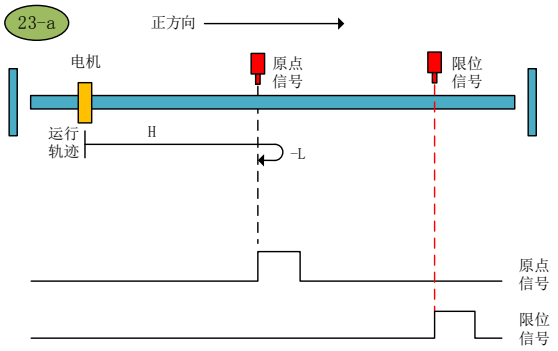
Origin return mode 22-a



Origin return mode 22-b

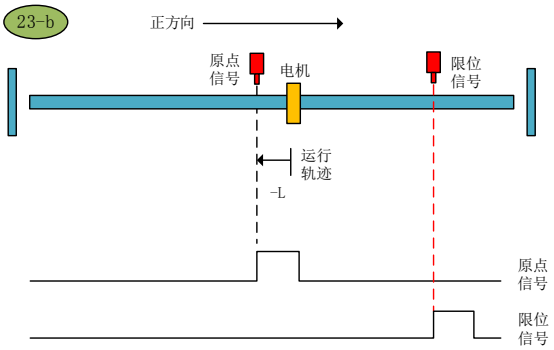
Zero return mode 23 (6098 00h = 23)

a Start OPR → Origin signal OFF → Forward high speed to find the origin rising edge → Deceleration to 0 → Reverse low speed to find the origin falling edge and stop



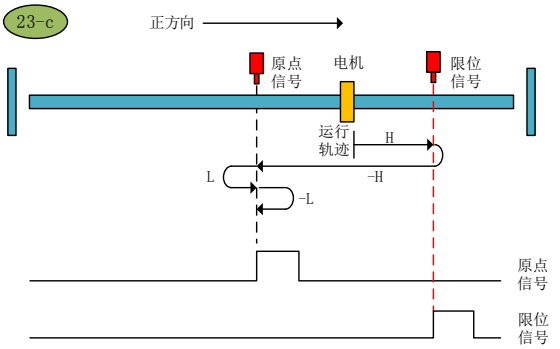
Origin return mode 23-a

b Start the origin return → origin signal ON → reverse low speed to find the original point after the falling edge



Origin return mode 23-b

c Start origin return → origin OFF → forward high speed to find the origin rising edge → hit the positive limit → reverse high speed to find the origin falling edge → decelerate to 0 → forward low speed to find the origin rising edge → reverse low speed to find the origin after the falling edge Downtime



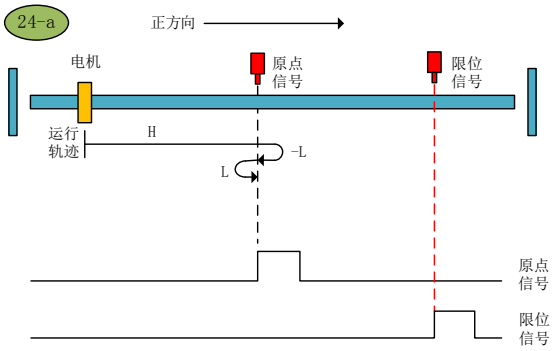
Origin return mode 23-c

Origin return mode 24 (6098 00h = 24)

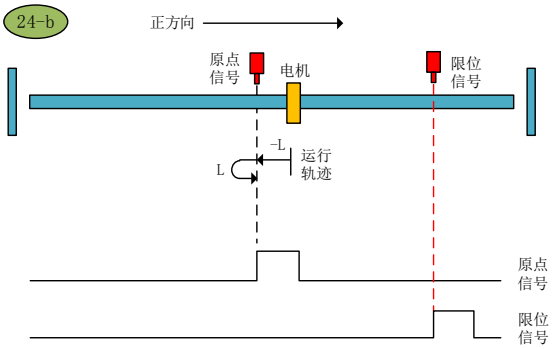
a. Start OPR → Origin signal OFF → Forward high speed to find the origin rising edge → Deceleration to 0 → Reverse low speed to find the origin falling edge → Forward low speed to find the origin rising edge and stop

b. Start origin return → origin signal ON → reverse low speed to find the origin falling edge → positive low speed to find the original point rising edge and stop

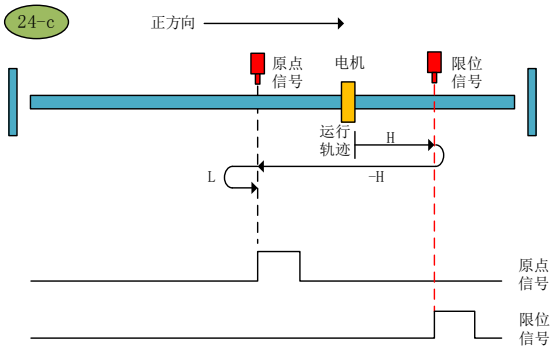
c. Start origin return → origin OFF → forward high speed to find the original rising edge → hit the positive limit → reverse high speed to find the origin falling edge → decelerate to 0 → forward low speed to find the original rising edge and stop



Origin return mode 24-a



Origin return mode 24-b



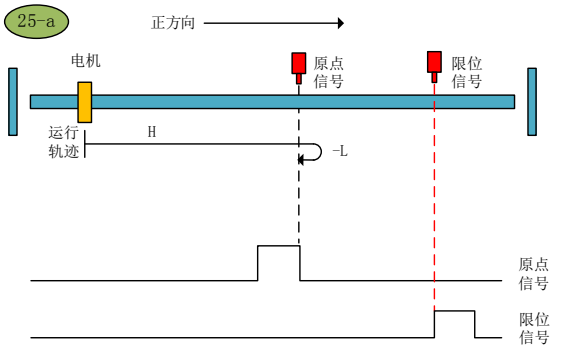
Origin return mode 24-c

Zero return mode of origin 25 (6098 00h = 25)

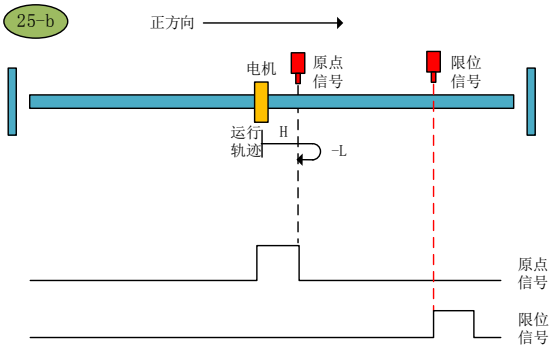
a. Start OPR → Origin signal OFF → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the original rising edge and stop

b. Start OPR → Origin signal ON → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the original rising edge and stop

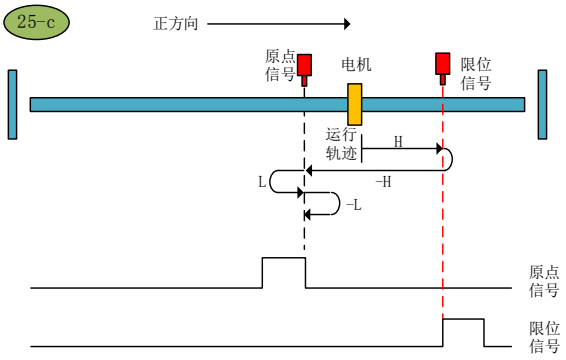
c. Start origin return → origin OFF → forward high speed to find the origin falling edge → hit the positive limit → reverse high speed to find the origin rising edge → decelerate to 0 → forward low speed to find the origin falling edge → reverse low speed to find the origin rising edge and stop



Origin return to zero 25-a



Origin return mode 25-b



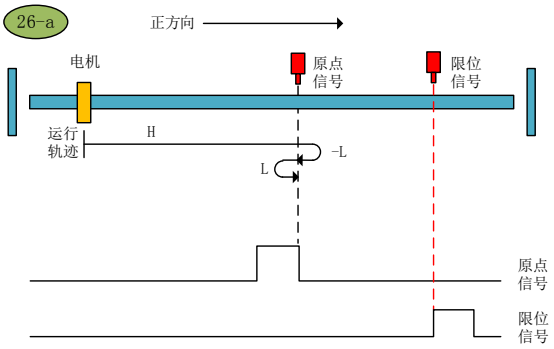
Origin return mode 25-c

Origin return mode 26 (6098 00h = 26)

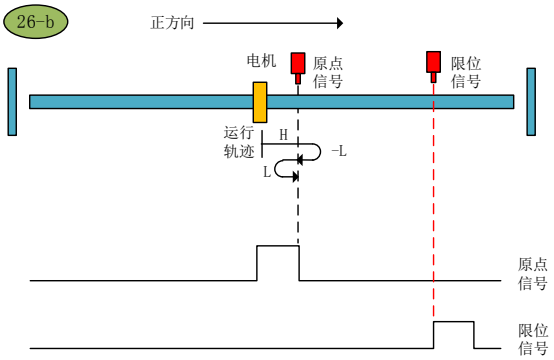
a. Start OPR → Origin signal OFF → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge → Forward low speed to find the origin falling edge and stop

b. Start OPR → Origin signal ON → Forward high speed to find the origin falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge → Forward low speed to find the origin falling edge and stop

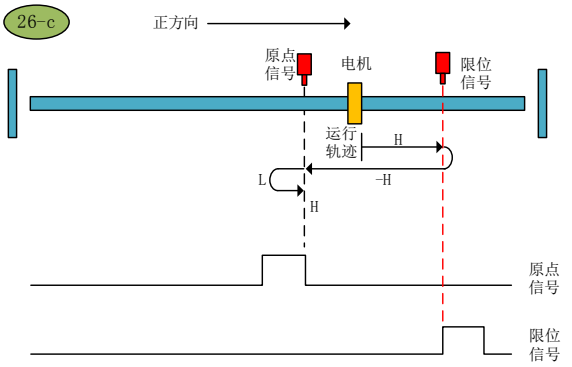
c. Start origin return → origin OFF → forward high speed to find the origin falling edge → hit the positive limit → reverse high speed to find the origin rising edge → decelerate to 0 → forward low speed to find the origin falling edge and stop



Origin return mode 26-a



Origin return mode 26-b



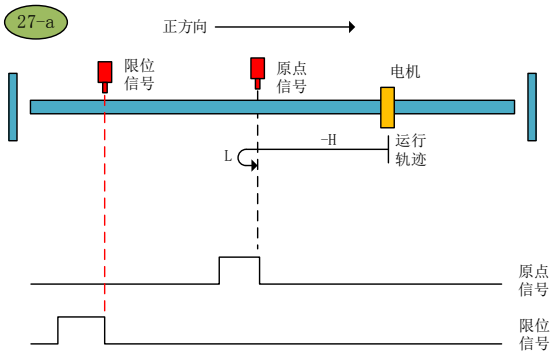
Origin return mode 26-c

Zero return mode 27 (6098 00h = 27)

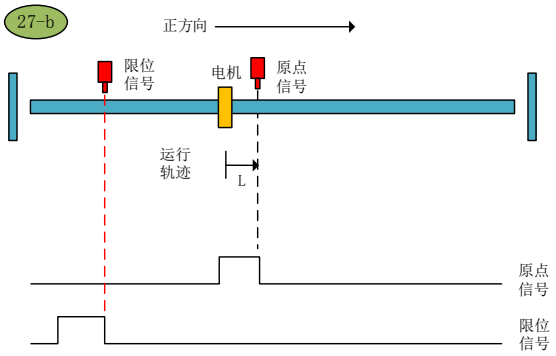
a. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge and stop

b. Origin return start → origin signal ON → forward low speed to find the origin after the falling edge

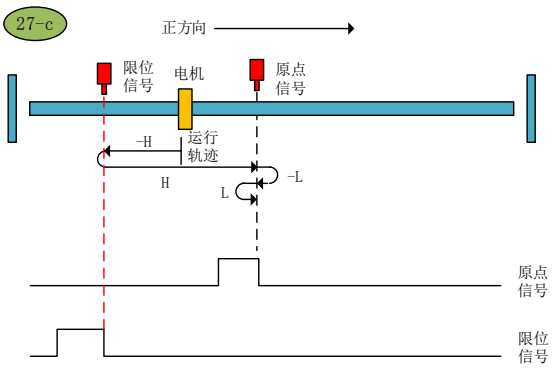
c. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Hit the negative limit → Forward high speed to find the origin signal falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge and stop



Origin return mode 27-a



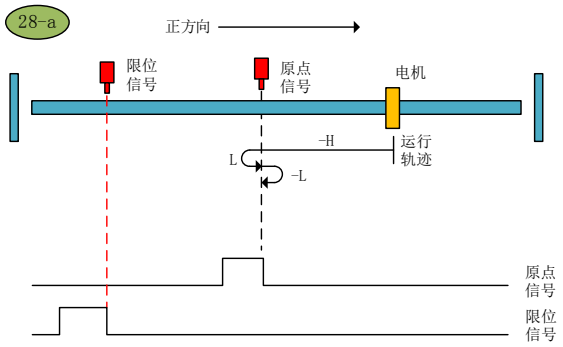
Origin return mode 27-b



Origin return mode 27-c

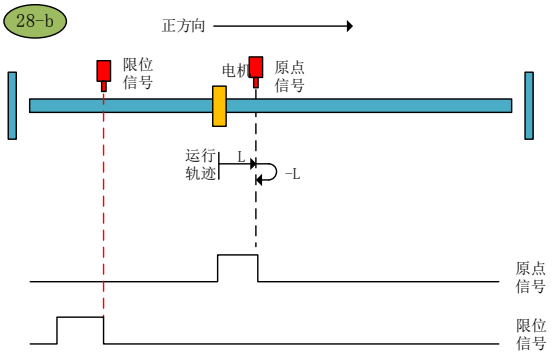
Zero return mode 28 (6098 00h = 28)

a. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Deceleration to 0 → Forward low speed to find the origin falling edge → Reverse low speed to find the origin rising edge and stop



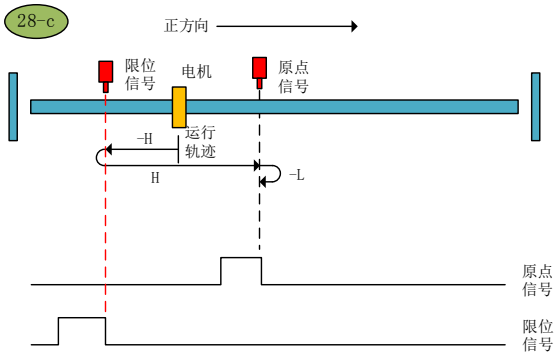
Origin return mode 28-a

b. Origin return start → Origin signal ON → Forward low speed to find the origin falling edge → Reverse low speed to find the origin rising edge and stop



Origin return mode 28-b

c. Origin return start → Origin signal OFF → Reverse high speed to find the origin rising edge → Hit the negative limit → Forward high speed to find the origin signal falling edge → Deceleration to 0 → Reverse low speed to find the origin rising edge and stop



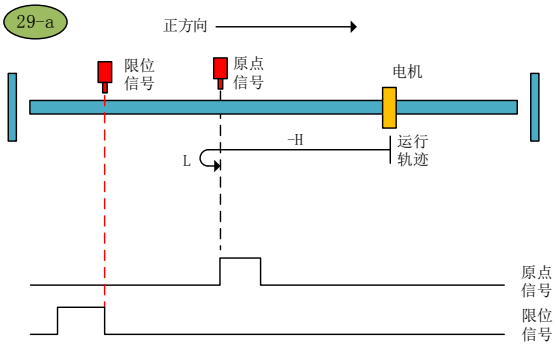
Origin return mode 28-c

Zero return mode 29 (6098 00h = 29)

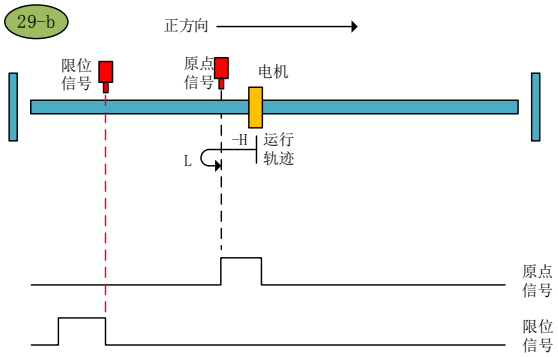
a. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge and stop

b. Origin return start → Origin signal ON → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge and stop

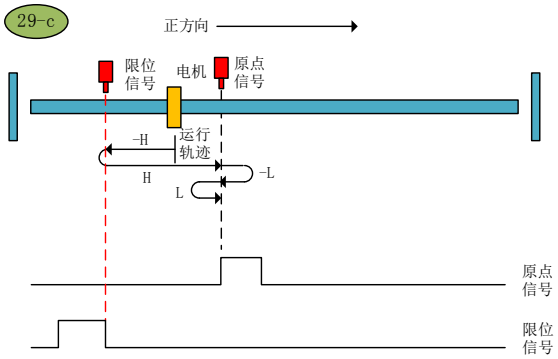
c. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Hit the negative limit → Forward high speed to find the origin signal rising edge → Decelerate to 0 → Reverse low speed to find the origin signal falling edge → Forward low speed to find the origin signal Stop after rising edge



Zero return method 29-a



Origin return mode 29-b



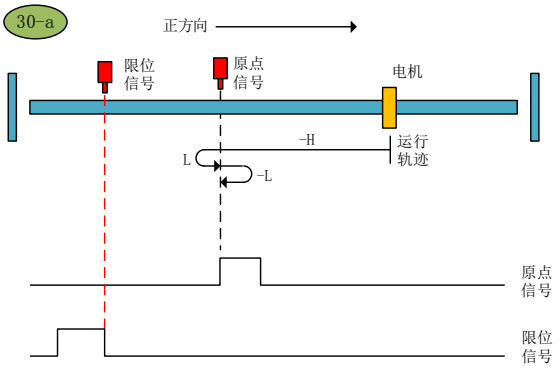
Origin return mode 29-c

Zero return mode 30 (6098 00h = 30)

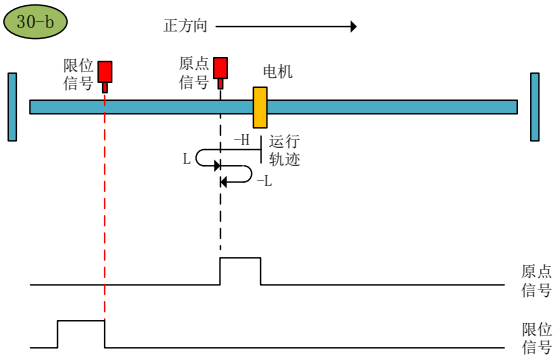
a. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Reverse low speed to find the origin falling edge and stop

b. Origin return start → Origin signal ON → Reverse high speed to find the origin falling edge → Deceleration to 0 → Forward low speed to find the origin rising edge → Reverse low speed to find the origin falling edge and stop

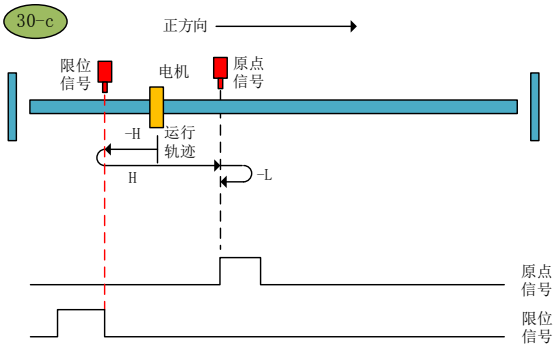
c. Origin return start → Origin signal OFF → Reverse high speed to find the origin falling edge → Hit the negative limit → Forward high speed to find the origin signal rising edge → Decelerate to 0 → Reverse low speed to find the origin signal falling edge and stop



Zero return method 30-a



Zero return method 30-b



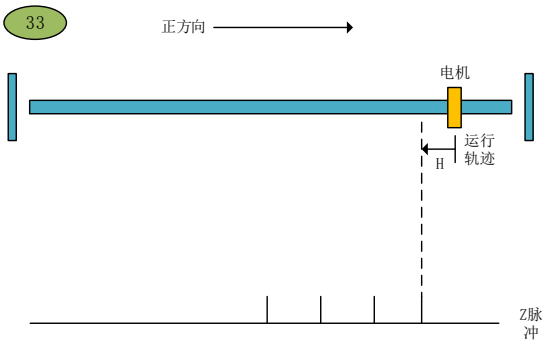
Zero return method 30-c

Zero return mode 31 (6098 00h = 31): Reserved.

Home zero return mode 32 (6098 00h = 32): Reserved.

Zero return mode of origin 33 (6098 00h = 33)

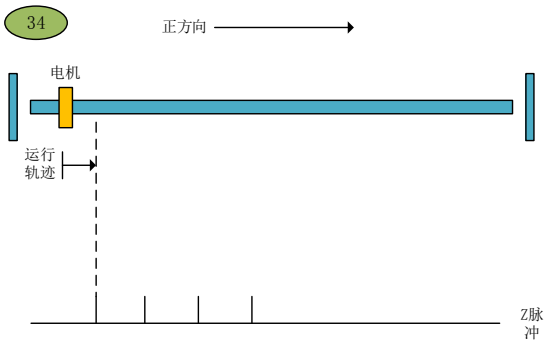
Starting zero return → negative looking for the first Z pulse



Origin return mode 33

Zero return mode of origin 34 (6098 00h = 34)

Origin return to zero → forward to find the first Z pulse



Origin return mode 34