J series DPLSR [G28] : Zero return – Initial direction reverse (the number of times to look for Z phase is 0)
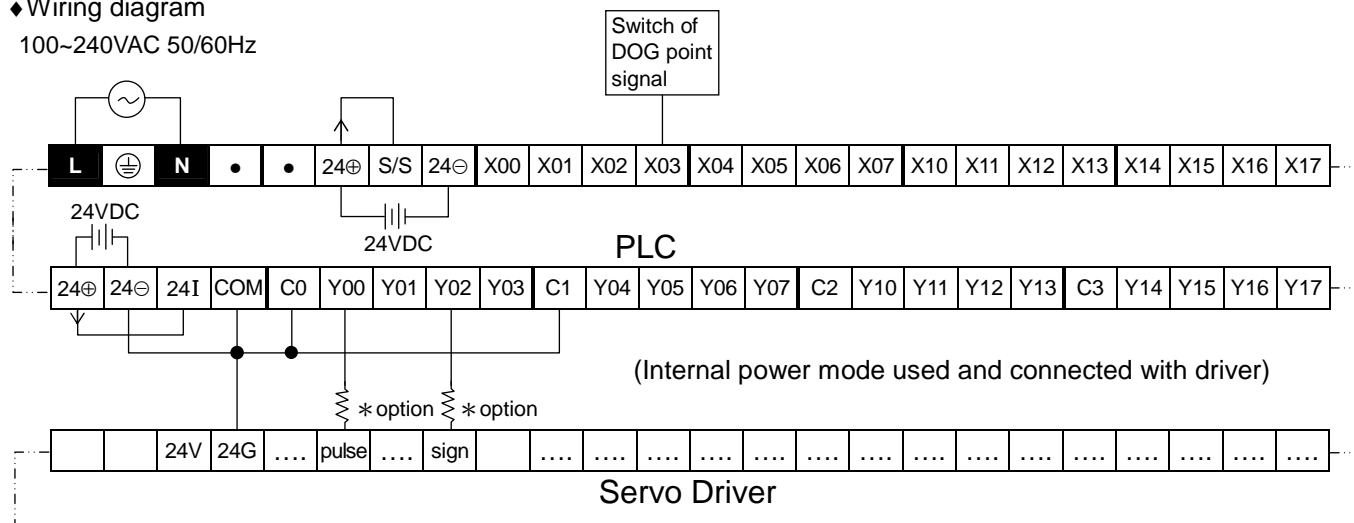
♦ Wiring diagram

100~240VAC 50/60Hz

Switch of DOG point signal

| L | ⏚ | N | • | • | 24⊕ | S/S | 24⊖ | X00 | X01 | X02 | X03 | X04 | X05 | X06 | X07 | X10 | X11 | X12 | X13 | X14 | X15 | X16 | X17 |

24VDC

24VDC

PLC

| 24⊕ | 24⊖ | 24I | COM | C0 | Y00 | Y01 | Y02 | Y03 | C1 | Y04 | Y05 | Y06 | Y07 | C2 | Y10 | Y11 | Y12 | Y13 | C3 | Y14 | Y15 | Y16 | Y17 |

(Internal power mode used and connected with driver)

∗option ∗option

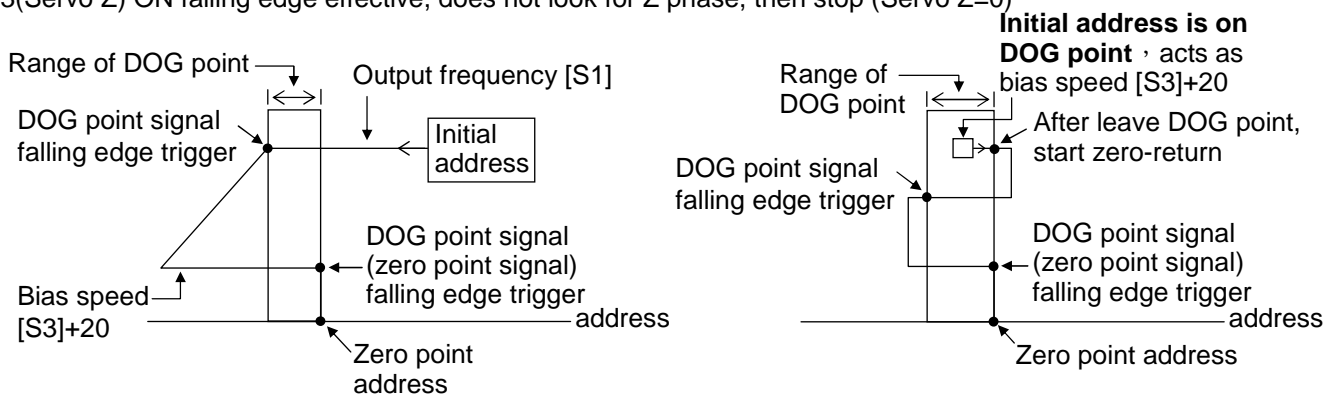| | | 24V | 24G | .... | pulse | .... | sign | | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |

Servo Driver

♦ Program exposition

M500 ON, looks for DOG signal through 10K speed (reverse)

X3(DOG) ON falling edge effective, decelerates to bias speed 100pps to look for zero-point signal (forward)

X3(Servo Z) ON falling edge effective, does not look for Z phase, then stop (Servo Z=0)

Range of DOG point

Output frequency [S1]

Initial address

DOG point signal falling edge trigger

DOG point signal (zero point signal) falling edge trigger

address

Bias speed [S3]+20

Zero point address

Initial address is on DOG point，acts as bias speed [S3]+20

Range of DOG point

After leave DOG point, start zero-return

DOG point signal falling edge trigger

DOG point signal (zero point signal) falling edge trigger

address

Zero point address

♦ About sample program, please refer to next page

♦ Sample program

```
       M8002
      ──┤├──────┬──[ ZRST │ D1000 │ D1099 ]
                │
                └──[ CALL  │ P10  ]
       M500
      ──┤↑├─────────[ RST  │ M510 ]   Clear Zero-return complete flag
       M500
      ──┤├──────────[ DPLSR │ D0 │ D2 │ D1000 │ Y0 ]
             M8029
            ──┤├──────┬──[ RST │ M500 ]
                      │
                      ├──[ SET │ M510 ]   Set zero-return complete flag. This example uses M510
                      │                   (User can define M register)
                      └──[ RST │ M8029 ]

      ──────────────[ FEND ]
       M8000
P10   ──┤├──────────[ DMOV │ K10,000 │ D0  ]   Output frequency (speed)

                  ──[ DMOV │ K10,000 │ D2  ]   Number of output pulses (address)

                  ──[ MOV  │ K28 │ D1000 ]   Zero-return mode

                  ──[ MOV  │ H0002 │ D1001 ]   Direction control point Y2

                  ──[ MOV  │ H0333 │ D1024 ]   DOG point signal X3 falling edge effective; Zero point signal X3
                                               falling edge effective. Initial operation direction as reverse
                  ──[ MOV  │ K0 │ D1025 ]   Set the number of times to look for Z phase, speed of looking
                                            for Z phase is as same as bias speed
       M8000
P11   ──┤├──────────[ MOV  │ H0 │ D1002 ]   Parameter setting

                  ──[ DMOV │ K100,000 │ D1016 ]   Maximum speed

                  ──[ MOV  │ K100 │ D1020 ]   Bias speed

                  ──[ MOV  │ K100 │ D1022 ]   Acceleration time (ms)

                  ──[ MOV  │ K100 │ D1023 ]   Deceleration time (ms)

      ──────────────[ SRET ]

      ──────────────[ END ]
```

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