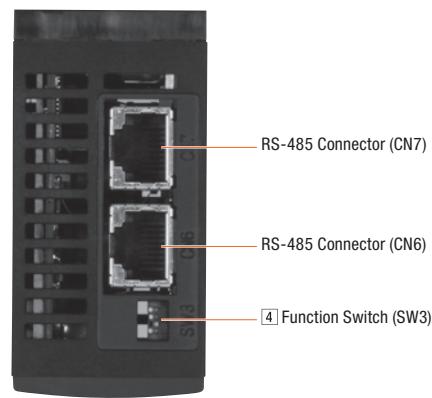
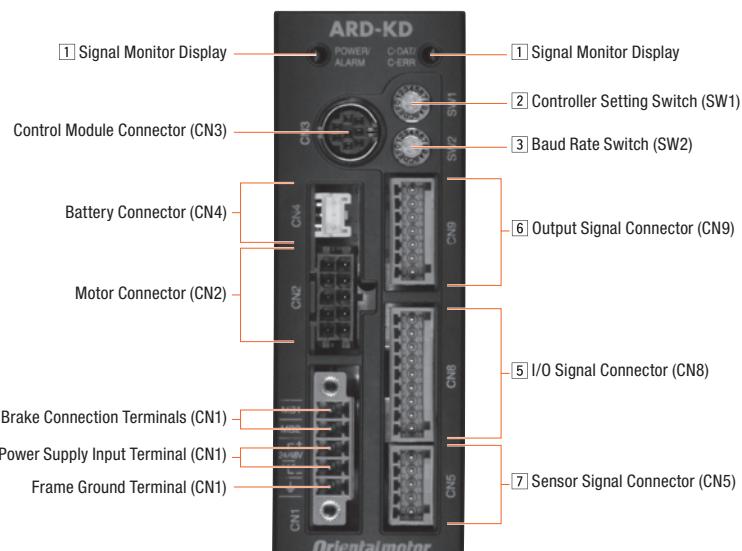


■ Connection and Operation (Built-in controller type)

● Names and Functions of Driver Parts



[Driver Top]



① Signal Monitor Display

◇ LED Indicator

| Indication | Color | Function | Lighting Condition |
|------------|-------|--------------------------------|---|
| POWER | Green | Power Supply Indication | When the power supply is input |
| ALARM | Red | Alarm Indication | Blinks when protective functions are activated. |
| C-DAT | Green | Communication Indication | When communication data is being exchanged |
| C-ERR | Red | Communication Error Indication | When communication data is in error |

② Controller Setting Switch (SW1)

| Indication | Function |
|------------|---|
| SW1 | Set this when you are using RS-485 communication. Set the controller number (Factory Setting: 0). |

③ Baud Rate Switch (SW2)

| Indication | Function |
|------------|---|
| SW2 | Set this when you are using RS-485 communication. Set the baud rate (Factory Setting: 7). |

◇ RS-485 Baud Rate Setting

| No. | Baud Rate (bps) |
|-----|--|
| 0 | 9600 |
| 1 | 19200 |
| 2 | 38400 |
| 3 | 57600 |
| 4 | 115200 |
| 5~6 | Not used |
| 7 | 625000 (Connection with a network converter) |
| 8~F | Not used |

Features

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Connection and Operation

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Accessory

Controller

4 Function Switch (SW3)

| Indication | No. | Function |
|------------|-----|--|
| SW3 | 1 | Set the controller number (Factory Setting: 0) in combination with Controller Setting Switch (SW1). |
| | 2 | Set the RS-485 protocol (Factory Setting: OFF). |
| | 3 | Not used. |
| | 4 | Set the RS-485 termination (120Ω) (Factory Setting: OFF). OFF: Termination disabled ON: Termination enabled |

◇RS-485 Protocol Setting

| Destination No. | Connection with a network converter | Modbus RTU Mode |
|-----------------|-------------------------------------|-----------------|
| 2 | OFF | ON |

5 I/O Signal Connector (CN8)

| Indication | Pin No. | Signal Name | Initial Value | |
|------------|---------|-------------|---------------|--|
| CN8 | 1 | IN0 | HOME | Executes a return-to-home operation. |
| | 2 | IN1 | START | Executes a positioning operation. |
| | 3 | IN2 | M0 | |
| | 4 | IN3 | M1 | Use these three bits to select the operation data No. |
| | 5 | IN4 | M2 | |
| | 6 | IN5 | FREE | Stop motor excitation and release the electromagnetic brake. |
| | 7 | IN6 | STOP | Stops the motor. |
| | 8 | IN7 | ALM-RST | Resets the current alarm. |

● Assign functions by setting parameters. Initial values are shown above. For details, refer to the user's manual.

The following input signals can be assigned to input terminals IN0 to 7.

| Input Signal | | | | |
|--------------|---------|-------------|--------|--------|
| 0: Not used | 8: MS0 | 18: STOP | 36:R4 | 45:R13 |
| 1:FWD | 9:MS1 | 24:ALM-RST | 37:R5 | 46:R14 |
| 2:RVS | 10:MS2 | 25:P-PRESET | 38:R6 | 47:R15 |
| 3:HOME | 11:MS3 | 26:P-CLR | 39:R7 | 48:M0 |
| 4:START | 12:MS4 | 27:HMI | 40:R8 | 49:M1 |
| 5:SSTART | 13:MS5 | 32:R0 | 41:R9 | 50:M2 |
| 6:+JOG | 16:FREE | 33:R1 | 42:R10 | 51:M3 |
| 7:-JOG | 17:C-ON | 34:R2 | 43:R11 | 52:M4 |
| | | 35:R3 | 44:R12 | 53:M5 |

6 Output Signal Connector (CN9)

| Indication | Pin No. | Signal Name | Initial Value | |
|------------|---------|-------------|---------------|---|
| CN9 | 1 | OUT0 | HOME-P | This signal is output when the motor is at the home position. |
| | 2 | OUT1 | END | This signal is output when the positioning operation is complete. |
| | 3 | OUT2 | AREA1 | This signal is output when the motor is in area 1. |
| | 4 | OUT3 | READY | This signal is output when the driver is ready. |
| | 5 | OUT4 | WNG | This output signal indicates the driver warning status. |
| | 6 | OUT5 | ALM | This output signal indicates the driver alarm status (normally closed). |

● Assign functions by setting parameters. Initial values are shown above. For details, refer to the user's manual.

The following output signals can be assigned to output terminals OUT0 to 5.

| Output Signal | | | | | |
|---------------|-----------|-------|---------|------------|-----------|
| 0: Not used | 9:MS1_R | 33:R1 | 42:R10 | 51:M3_R | 67:READY |
| 1:FWD_R | 10:MS2_R | 34:R2 | 43:R11 | 52:M4_R | 68:MOVE |
| 2:RVS_R | 11:MS3_R | 35:R3 | 44:R12 | 53:M5_R | 69:END |
| 3:HOME_R | 12:MS4_R | 36:R4 | 45:R13 | 60:+LS_R | 70:HOME-P |
| 4:START_R | 13:MS5_R | 37:R5 | 46:R14 | 61:-LS_R | 71:TLC |
| 5:SSTART_R | 16:FREE_R | 38:R6 | 47:R15 | 62:HOMES_R | 72:TIM |
| 6:+JOG_R | 17:C-ON_R | 39:R7 | 48:M0_R | 63:SLIT_R | 73:AREA1 |
| 7:-JOG_R | 18:STOP_R | 40:R8 | 49:M1_R | 65:ALM | 74:AREA2 |
| 8:MS0_R | 32:R0 | 41:R9 | 50:M2_R | 66:WNG | 75:AREA3 |
| | | | | | 80:S-BSY |

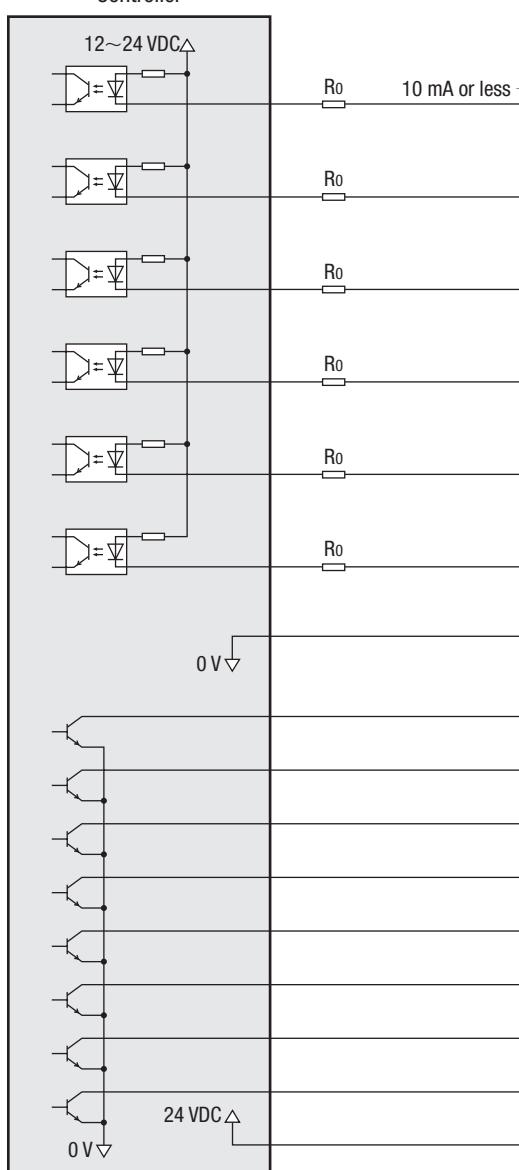
7 Sensor Signal Input (CN5)

| Indication | Pin No. | Signal Name | Initial Value | |
|------------|---------|-------------|------------------------------|--|
| CN5 | 1 | +LS | +side limit sensor input | |
| | 2 | -LS | -side limit sensor input | |
| | 3 | HOMES | Mechanical home sensor input | |
| | 4 | SLIT | Slit Sensor Input | |
| | 5 | IN-COM2 | Sensor common | |

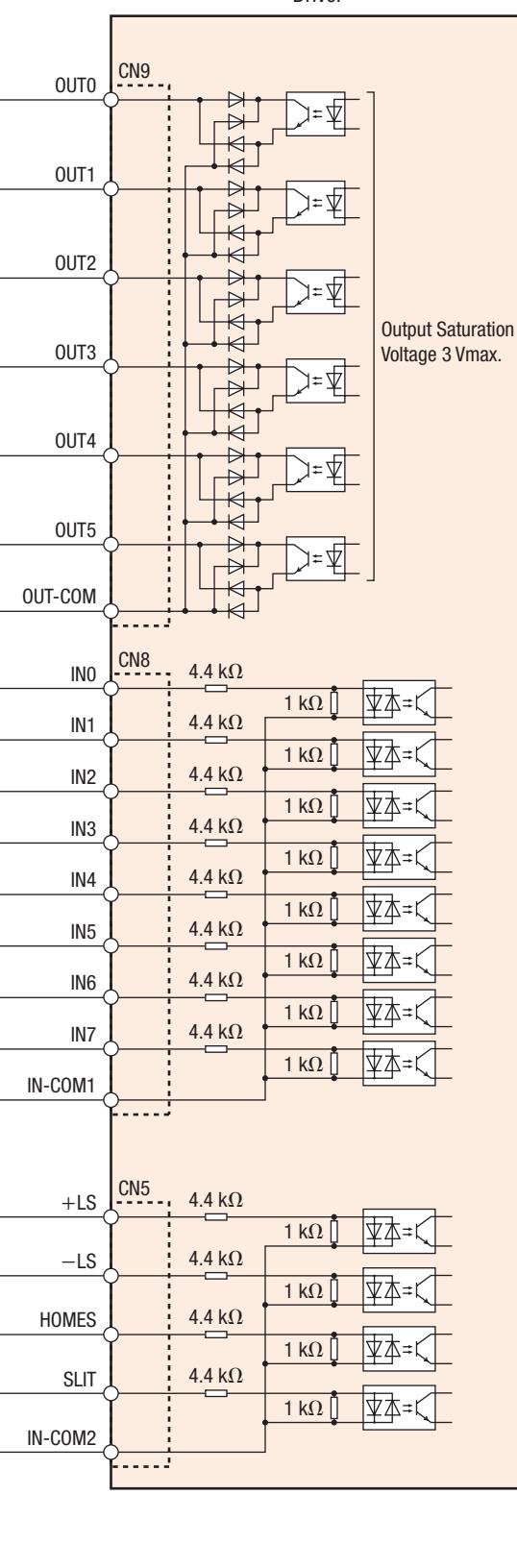
● Connection Diagram

- ◇ Connection to Programmable Controller
- Connecting to a Current Sink Output Circuit

Controller



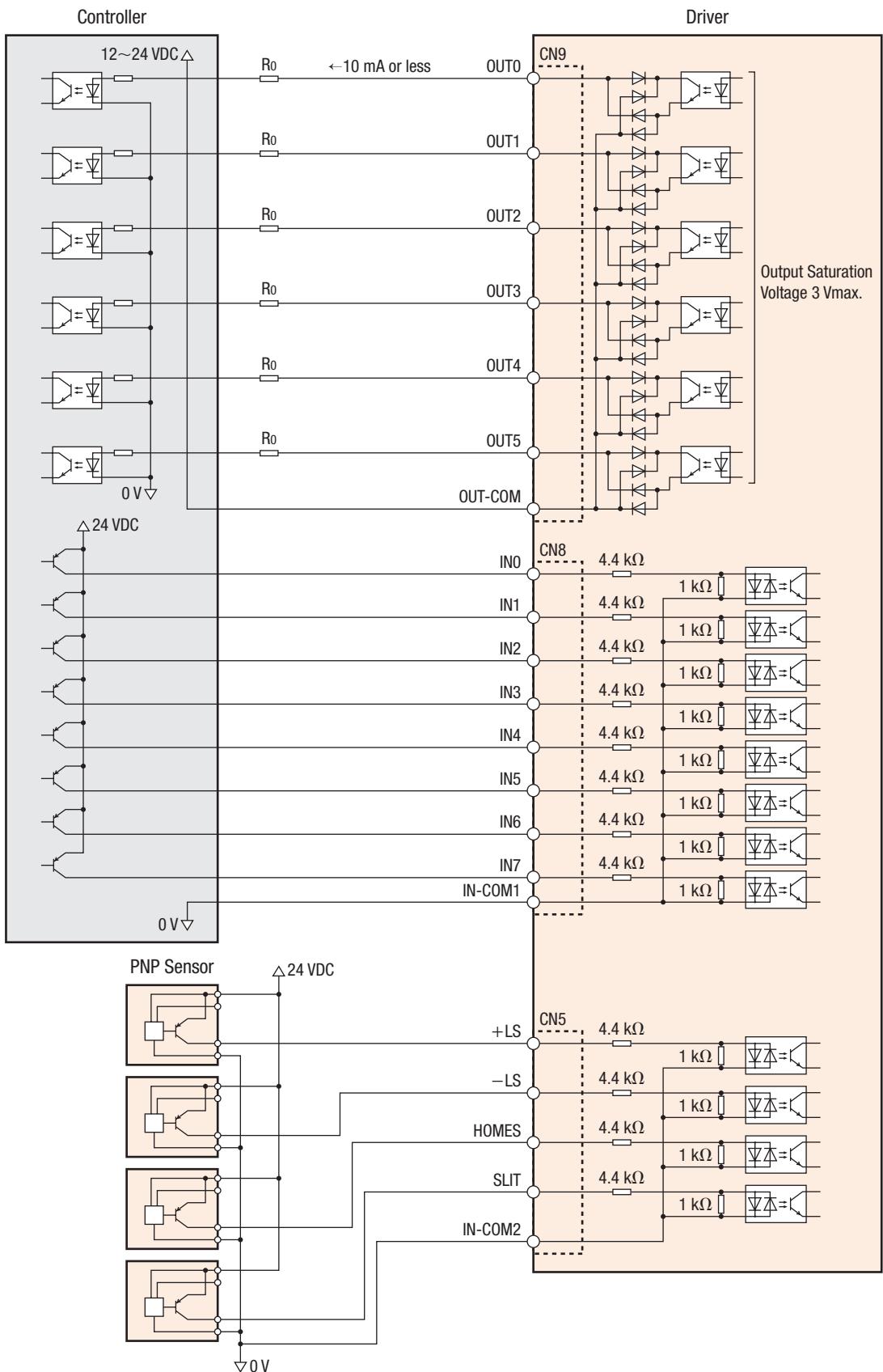
Driver



Note

- Use 24 VDC input signals.
- Use 24 VDC output signals at 10 mA or less. When the current value exceeds 10 mA, connect the external resistor R_0 to keep the current 10 mA or less.
- The maximum output signal saturation voltage is 3 V.
- Provide a distance of at least 200 mm between the signal lines and power lines (power supply lines, motor lines, etc.).
Do not run the signal lines in the same duct as power lines or bundle them with power lines.
- If noise generated by the motor cable or power supply cable causes a problem with the specific wiring or layout, shield the cable or use ferrite cores.

◇ Connection to Programmable Controller
 • Connecting to a Current Source Output Circuit



Note

- Use 24 VDC input signals.
- Use 24 VDC output signals at 10 mA or less. When the current value exceeds 10 mA, connect the external resistor R_0 to keep the current 10 mA or less.
- The maximum output signal saturation voltage is 3 V.
- Provide a distance of at least 200 mm between the signal lines and power lines (power supply lines, motor lines, etc.).
Do not run the signal lines in the same duct as power lines or bundle them with power lines.
- If noise generated by the motor cable or power supply cable causes a problem with the specific wiring or layout, shield the cable or use ferrite cores.

| Features | Lineup | System Configuration | Product Line | Specifications and Characteristics | Dimension | Connection and Operation | Combination List | Extended Functions | How to Read Specifications and Characteristics | Accessory | Controller |
|----------|--------|----------------------|--------------|------------------------------------|-----------|--------------------------|------------------|--------------------|--|-----------|------------|
|----------|--------|----------------------|--------------|------------------------------------|-----------|--------------------------|------------------|--------------------|--|-----------|------------|