

Autonics

DeviceNet Digital Remote I/O Standard Terminal Block Type ARD SERIES

INSTRUCTION MANUAL



DeviceNet



Thank you very much for selecting Autonics products. For your safety, please read the following before using.

Safety Considerations

Please observe all safety considerations for safe and proper product operation to avoid hazards.

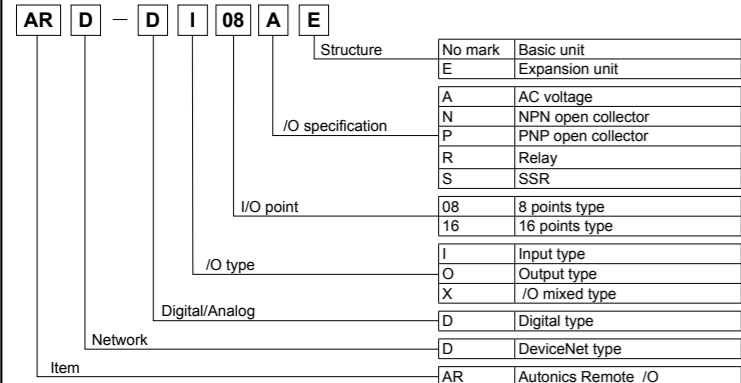
Warning Failure to follow these instructions may result in serious injury or death.

Caution Failure to follow these instructions may result in personal injury or product damage.

- Warning
1. Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.
2. Do not disassemble or modify the unit.
3. Do not connect, repair, or inspect the unit while connected to a power source.
4. Check 'Connections' before wiring.

- Caution
1. Use the unit within the rated specifications.
2. Use dry cloth to clean the unit, and do not use water or organic solvent.
3. Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
4. Keep metal chip, dust, and wire residue from flowing into the unit.
5. Do not disconnect terminal or power, when the product is operating.

Ordering Information



Models

Table with columns: Model, Expansion unit, Specification. Lists models like ARD-D 08A, ARD-DI16N, ARD-DO08R, etc.

The above specifications are subject to change and some models may be discontinued without notice. Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage).

Functions

- Auto communication speed recognition
Network power voltage monitoring
Single byte I/O
Multi-byte I/O
Additional expansion units
Reading the number of expansion units
Reading the unit specification

Specifications

Specifications table with columns: Model, Power supply, I/O points, Control I/O, Common, Insulation resistance, Noise strength, Dielectric strength, etc.

DeviceNet Communication

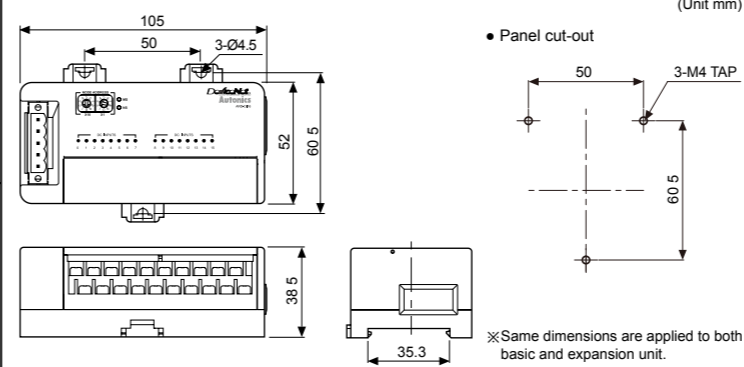
DeviceNet Communication table with columns: Item, Specification. Lists communication distance, node address setting, communication speed, etc.

The communication speed is automatically set to the communication speed of the Master (PC, PLC, etc.) When changing the communication speed during operation, the network status (NS) LED flashes in red and communication is not possible.

Part Descriptions

- Basic unit
1. DeviceNet Connector
2. Rotary switch for address
3. Status LED
4. I/O status LED
5. Rail lock
6. Connector output part
7. I/O terminal block
Expansion unit
1. Connector input part
2. I/O status LED
3. Rail lock
4. Connector output part
5. I/O terminal block

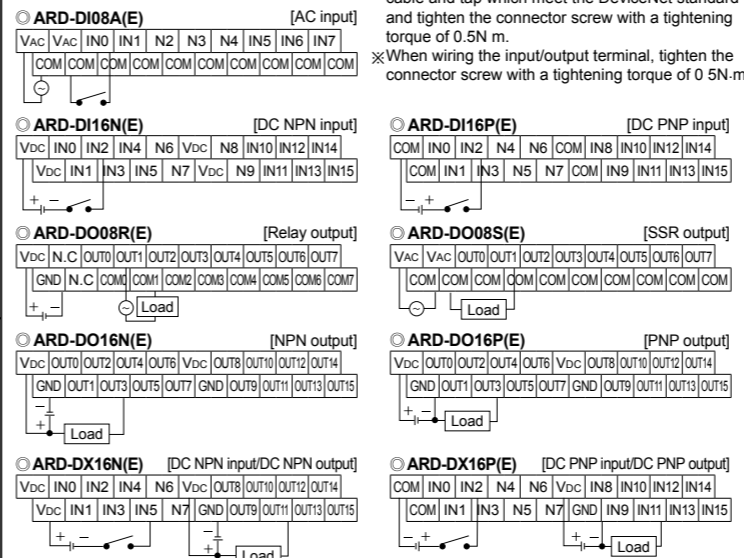
Dimensions



Installation and Setup

- Setting of node address
Unit Installation
Mounting on panel
Mounting on DIN rail
Connection of basic and expansion unit
Terminating resistance

Connections



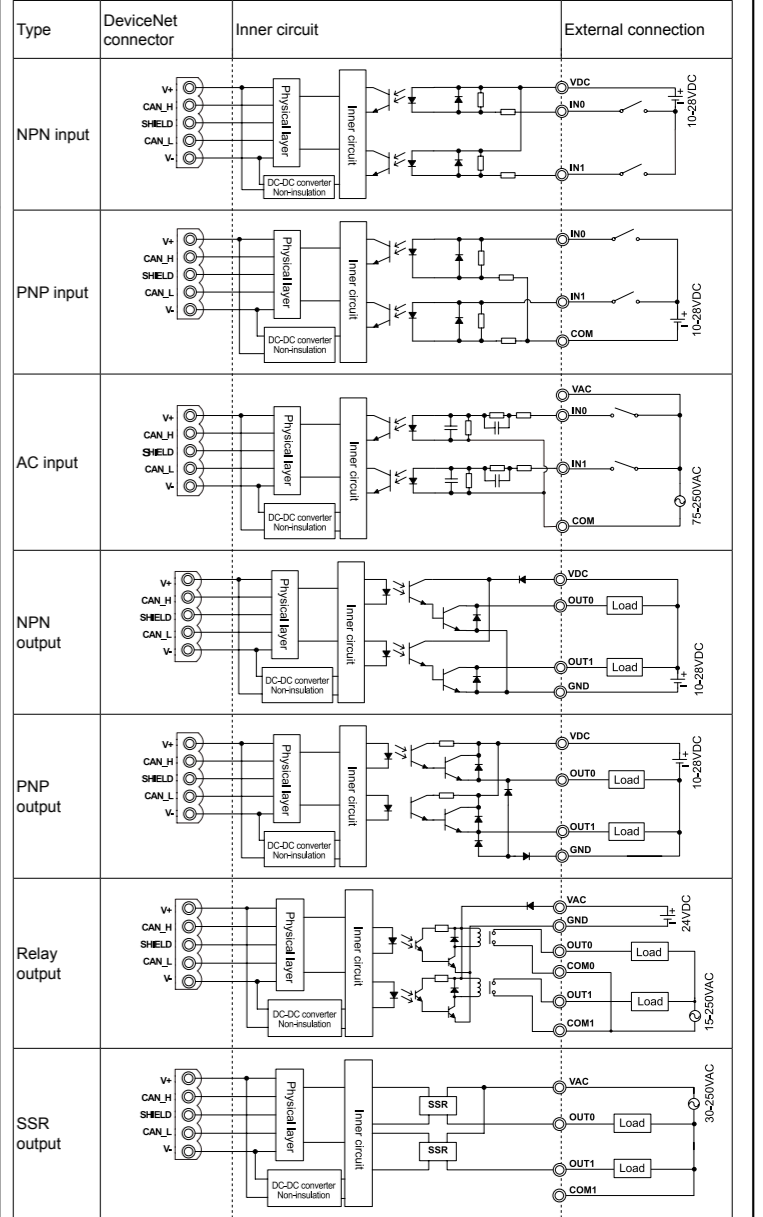
Status LED

Status LED table with columns: Item, LED Status (Red, Green), Description. Lists Unit status (MS) LED and Network status (NS) LED.

Communication Distance

Communication Distance table with columns: Baud Rate, Max. network length, Max. branch line length, Max. extended branch line length.

I/O Circuit Diagram



Caution during Use

- Follow instructions in 'Cautions during Use'.
24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
Keep away from high voltage lines or power lines to prevent inductive noise.
Do not use near the equipment which generates strong magnetic force or high frequency noise.
Do not connect or disconnect the expansion unit when power is being supplied.
This unit may be used in the following environments:
Indoors (in the environment condition rated in 'Specifications')
Altitude max. 2,000m
Pollution degree 2
Installation category II

Major Products

- Photoelectric sensors
Fiber optic sensors
Door sensors
Door side sensors
Area sensors
Proximity sensors
Pressure sensors
Rotary encoders
Connector/Sockets
Switching mode power supplies
Control switches/Lamps/Buzzers
I/O Terminal Blocks & Cables
Stepper motors/drivers/inmotion controllers
Graphic/Logic panels
Field network devices
Laser marking system(Fiber, CO2, Nd:YAG)
Temperature controllers
Temperature/Humidity transducers
SSR/Power controllers
Counters
Timers
Panel meters
Tachometer/Pulse(Rate) meters
Display units
Sensor controllers