

Autonics DISPLAY UNIT D1SC-N INSTRUCTION MANUAL



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.
- ⚠ Safety considerations are categorized as follows.
- ⚠ **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.
- ⚠ The symbols used on the product and instruction manual represent the following
- ⚠ symbol represents caution due to special circumstances in which hazards may occur.

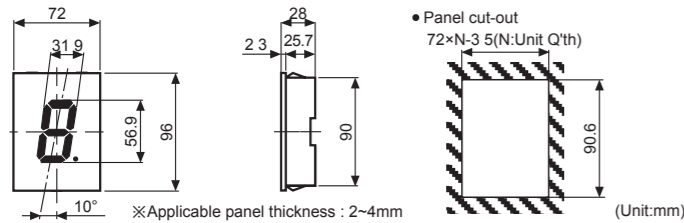
Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.) Failure to follow this instruction may result in fire, personal injury, or economic loss.
- Install on a device panel to use.** Failure to follow this instruction may result in fire.
- Do not connect, repair, or inspect the unit while connected to a power source.** Failure to follow this instruction may result in fire.
- Check 'Unit description and function setting' before wiring.** Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit.** Failure to follow this instruction may result in fire.

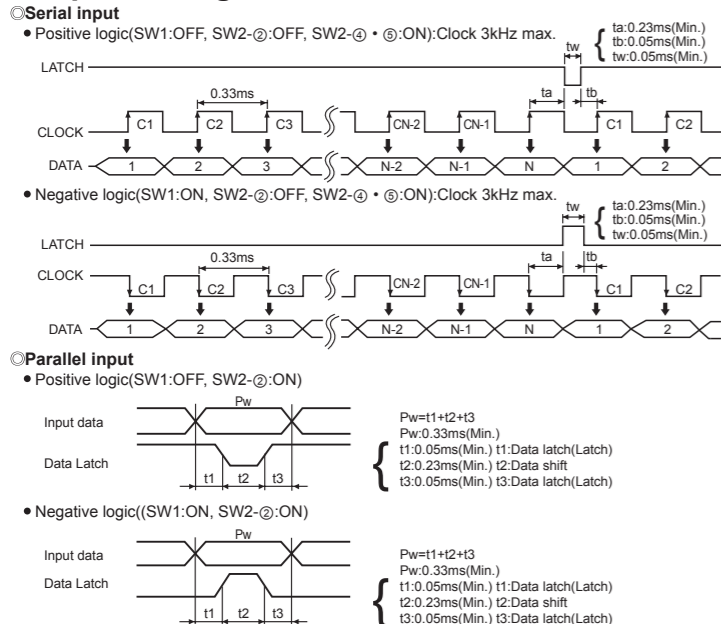
Caution

- Use the unit within the rated specifications.** Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.** Failure to follow this instruction may result in fire.
- 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.** Failure to follow this instruction may result in fire or explosion.
- Keep metal chip, dust, and wire residue from flowing into the unit.** Failure to follow this instruction may result in fire or product damage.

Dimensions



Input Timing

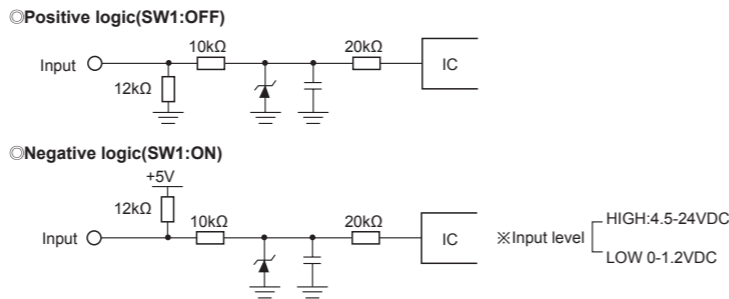


⚠ The above specifications are subject to change and some models may be discontinued without notice. ⚠ Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage).

Specifications

Model	D1SC-N
Indication	Red(7 Segment)
Power supply	12-24VDC≒
Allowable operation voltage	90 to 110% rated voltage
Current consumption	Max. 70mA
Max. clock speed	Max. 3kHz[When duty rate is 1:1(ON:OFF)]
Input logic	Selectable positive or negative logic by slide switch
Input impedance	12kΩ
Input level	[High] : 4.5-24VDC≒, [Low] : 0-1.2VDC≒
Insulation resistance	100MΩ Min (at 500VDC)
Noise strength	The square wave noise by simulator(pulse width:1μs) ±300V between power terminals, ±300V between input terminals
Environment	Ambient temperature: 0 to 60°C, Storage: -10 to 85°C (at non-freezing status)
	Ambient humidity: 35 ~ 85%RH
Weight	Approx. 100g

Input Circuit

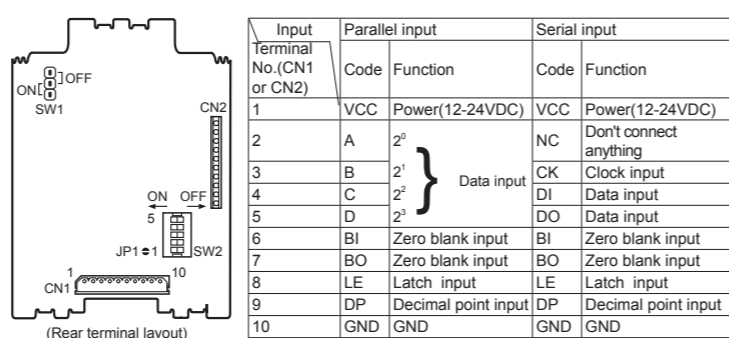


Input Data Chart

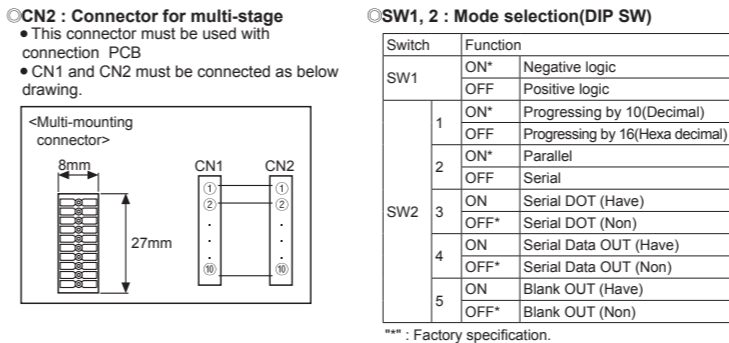
Indication				Negative input					Positive input				
Minus		7 Segment		D	C	B	A	LATCH	D	C	B	A	LATCH
Hexa decimal	Decimal	Hexa decimal	Decimal										
Blank	Blank	0	0	H	H	H	H	H	L	L	L	L	L
Blank	Blank	1	1	H	H	H	L	H	L	L	L	H	L
**	-	2	2	H	H	L	L	H	L	L	H	L	L
-	-	3	3	H	H	L	L	H	L	L	H	H	L
-	-	4	4	H	L	H	H	H	L	H	L	L	L
-	-	5	5	H	L	H	L	H	L	H	L	H	L
-	-	6	6	H	L	L	H	H	L	H	H	L	L
-	-	8	8	L	H	H	H	H	H	L	L	L	L
-	-	9	9	L	H	H	L	H	H	L	L	H	L
-	Blank	Blank	Blank	L	H	L	L	H	H	L	H	L	L
-	Blank	b	Blank	L	H	L	L	H	H	L	H	H	L
-	Blank	c	Blank	L	L	H	H	H	H	H	L	H	L
-	Blank	d	Blank	L	L	H	L	H	H	H	L	H	L
-	Blank	e	Blank	L	L	L	H	H	H	H	H	L	L
-	Blank	f	Blank	L	L	L	L	H	H	H	H	H	L
HOLD	HOLD			X	X	X	X	L	X	X	X	X	H

※ "X" : Don't care, ** - : Minus indication
※ In case of indicating minus(-), JP1 must be OFF

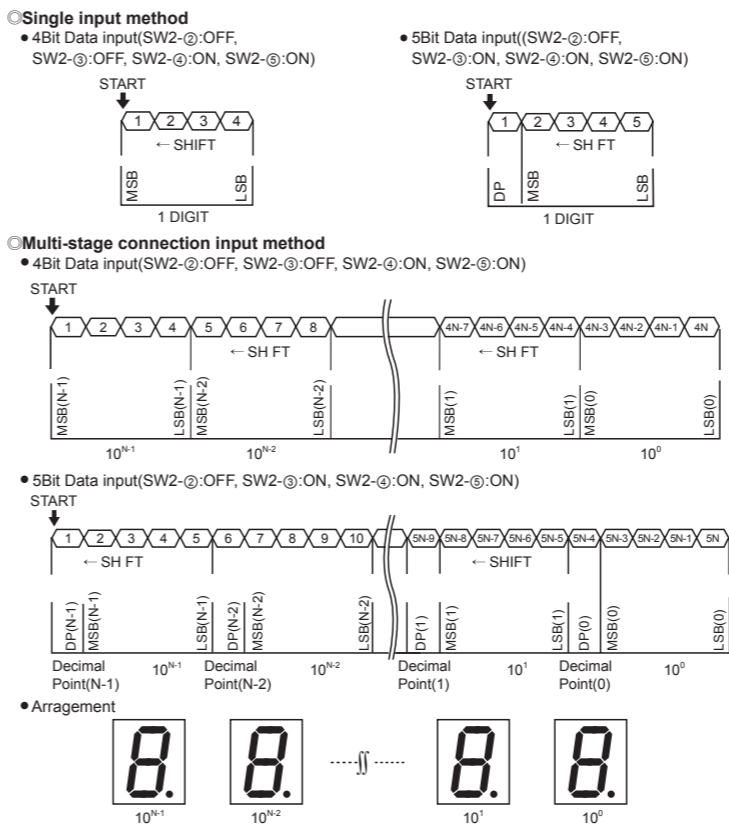
Unit Description and Function setting



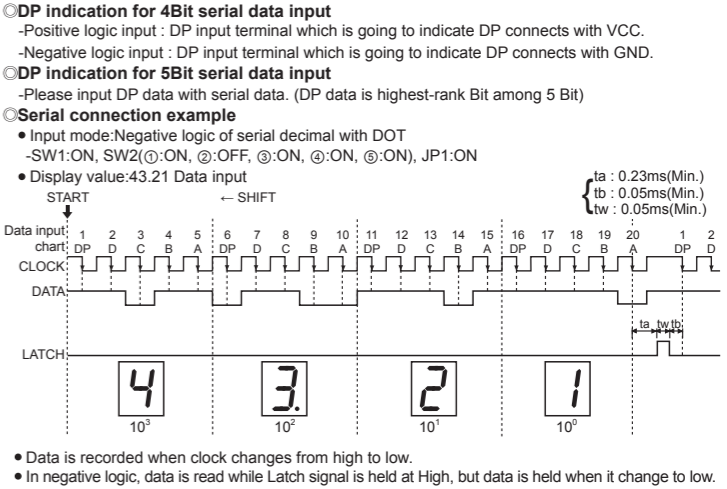
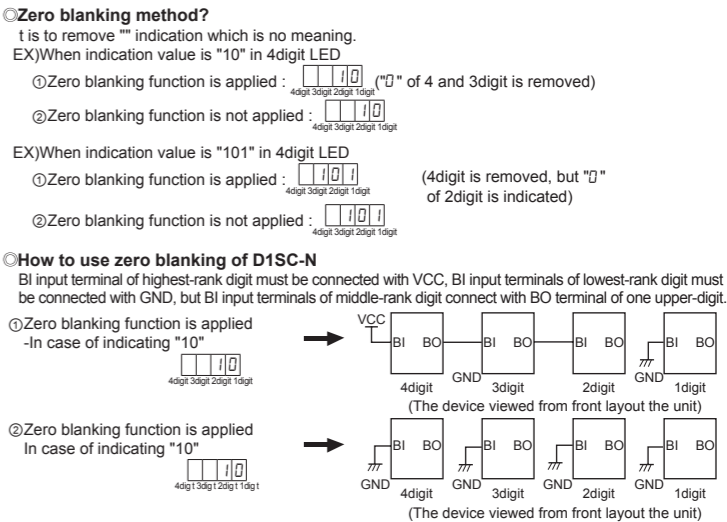
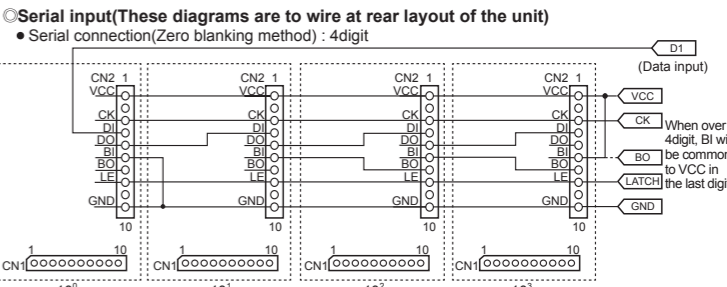
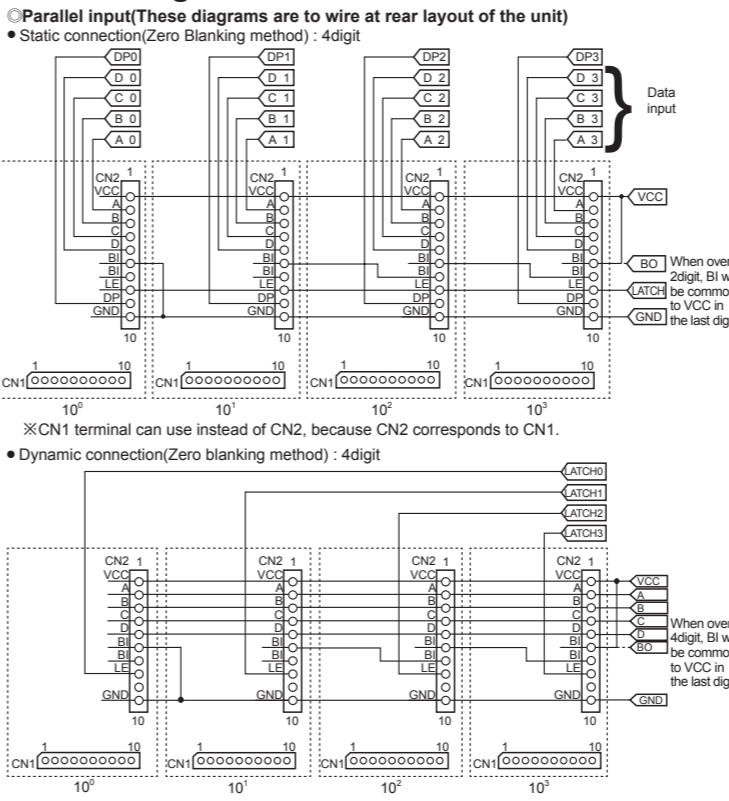
※ "JP1-ON" Factory specification.



Data Input Method for Serial



Multi-stage Connection Method



Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
- 12-24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
- Install a power switch or circuit breaker in the easily accessible place for supplying or disconnecting the power.
- Keep away from high voltage lines or power lines to prevent inductive noise. In case installing power line and input signal line closely, use line filter or varistor at power line and shielded wire at input signal line. Do not use near the equipment which generates strong magnetic force or high frequency noise.
- This unit may be used in the following environments.
 - ① Indoors (in the environment condition rated in 'Specifications')
 - ② Altitude max. 2,000m
 - ③ Pollution degree 2
 - ④ Installation category I

Main Product

- 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/Motion Controllers
- Graphic/Logic Panels
- Field Network Devices
- Laser Marking System (Fiber, Co., Nd:YAG)
- Laser Welding/Cutting System
- Temperature Controllers
- Temperature/Humidity Transducers
- SSRs/Power Controllers
- Counters
- Timers
- Panel Meters
- Tachometers/Pulse (Rate) Meters
- Display Units
- Sensor Controllers