

High Performance Display Units : Serial / Parallel Input



DS / DA Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Features

- Simple wiring without soldering
 - multi-stage connection using expansion connectors or ribbon cables.
 - power supply and data wiring required on base unit only.
- Various input options
 - Serial input
 - Dynamic Parallel input
 - RS485 communication (Modbus) input (Master, Slave)
 - RS485 communication (Modbus) time sync display
 - PT temperature sensor input
 - PT temperature sensor + RS485 communication input
- Expandable up to 24 units with multi-stage connection
- Available in various sizes: 16 mm, 22.5 mm, 40 mm, 60 mm
- High luminance LED display
- Various unit display plates (switchable) with flashing or ON/OFF options
- Various display types
 - 7-segment display and 16-segment
 - Red and green display types
 - Display 64 characters (0 to 9, A to Z, 27 symbols, decimal point)

Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

D **①** **②** - **③** **④**

① Display method

S: 7-segment
A: 16-segment

② Size

16: W 16 × H 24 mm
22: W 20 × H 33 mm
40: W 40 × H 60 mm
60: W 60 × H 96 mm

③ Display color

R: Red
G: Green

④ Input method (basic unit)

S: Serial input
P: Parallel input

Product Components

- Product
- 16 / 22 mm Cap (left-right 1 set) × 1
- 22 / 40 / 60 Connector (parallel input) × 1
- Instruction manual
- 22 mm Connector (serial input) × 1

Specifications

Model	DS16-□□	D□22-□□	D□40-□□	D□60-□□
Display color	Red / green model			
Power supply	12 - 24 VDC≒			
Allowable voltage range	90 to 110 % of power supply			
Current consumption (red)	≤ 20 mA	≤ 25 mA	≤ 55 mA	≤ 65 mA
Current consumption (green)	≤ 15 mA	≤ 20 mA	≤ 40 mA	≤ 45 mA
Characters size (W×H)	9 × 16 mm	11.2 × 22.5 mm	22.4 × 40 mm	33.6 × 60 mm
Noise immunity	± 500 V the square wave noise (pulse width: 1 μs) by the noise simulator			
Ambient temperature	-10 to 55 °C, storage: -25 to 65 °C (no freezing or condensation)			
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)			
Protection rating	IP40 (front part)			
Approval	CE ENEC			
Weight (packaged) ⁰¹⁾	≈ 12 g (≈ 52 g)	≈ 17 g (≈ 58 g)	≈ 28 g (≈ 63 g)	≈ 60 g (≈ 110 g)

01) The package weight of 16 mm / 22 mm expansion unit varies, it based on 3 packages.
16 mm: ≈ 77 g / 22 mm: ≈ 92 g

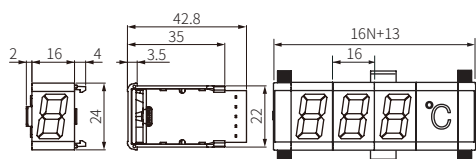
Model	D□□-□S	D□□-□P
Input method	Serial	Parallel
Max. Clock ⁰¹⁾	≤ 2 kHz	Dynamic 1: ≤ 3 kHz Dynamic 2: ≤ 1.5 kHz
Input logic	Positive logic (PNP), negative logic (NPN)	
Input resistance	20 kΩ	
Input level	High: 4.5 - 24 VDC≒, Low: 0 - 1.2 VDC≒	
Display character	64 characters and symbols display: 0 to 9, A to Z, 27 symbols, decimal point	
Max. number of multi-stage	24-unit	Dynamic 1: 6-unit (4-bit) or 4 units (6-bit) Dynamic 2: 24-unit (6-bit)

01) Based on 50 : 50 (%) of duty ratio (ON / OFF)

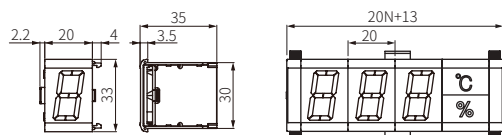
Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.
- N: number of units

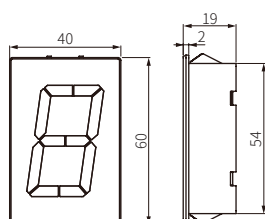
16 mm size



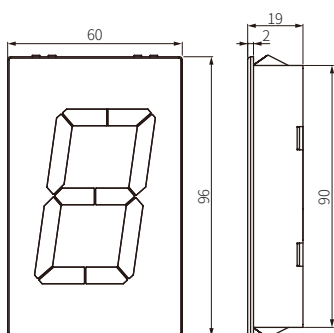
22 mm size



40 mm size

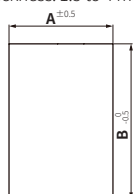


60 mm size



Panel cut-out

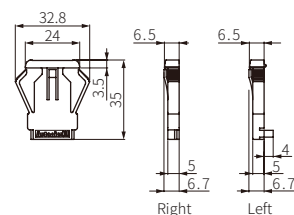
- Panel thickness: 1.5 to 4 mm



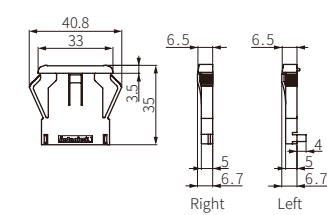
Model	A	B
16 mm	16N+11	23
22 mm	20N+11	31
40 mm	40N-2	55
60 mm	60N-3	91

Cap

- 16 mm size

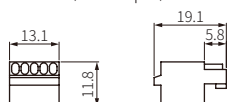


- 22 mm size

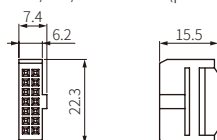


Connector

- 22 mm size (serial input)

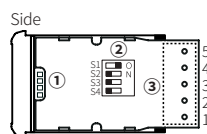


- 22 / 40 / 60 mm size (parallel input)

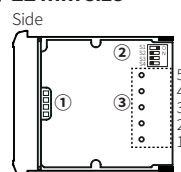


[Serial Input Model] Unit Descriptions

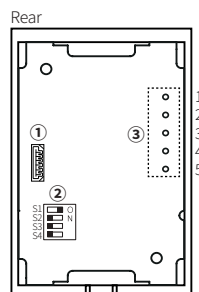
16 mm size



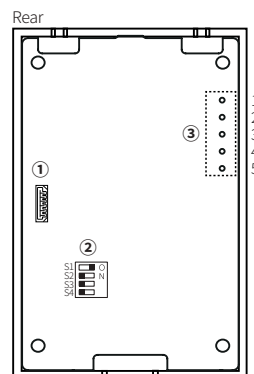
22 mm size



40 mm size



60 mm size



① Expansion connector

Using for connecting expansion unit. Refer to the 'Connection of Units.'

② Function set switches Basic unit only

No.	Switch OFF (■□)	Switch ON (□■)	Function	Default
S1	Positive logic (PNP)	Negative logic (NPN)	Input logic	ON
S2	Not used	Use	Zero Blanking	OFF
S3	Not used	Use	Decimal number display ⁰¹⁾	OFF
S4	8 bits	5-bit	Data input bit	OFF

01) The other data except 0 to 9 are blank.

③ Input terminal Basic unit only

No.	Code	Function
1	VCC	12 - 24 VDC
2	GND	0V
3	Data	Data input
4	CLOCK	CLOCK input
5	LATCH	LATCH input

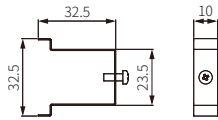
- The basic unit supplies the power for expansion unit and the unit-display unit and DATA input.
- For the 22 mm size model, connect the connector to the input terminal.

		1	2	3	0	4	5	6	7
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Sold Separately: 16 / 22 mm Middle Bracket (BK-D□R)

- Unit: mm, For the detailed drawings, follow the Autonics website.

■ BK-D16R (16 mm)



■ BK-D22R (22 mm)

