

Model: RS01-BN

Feature:

- Support BACnet MSTP / Modbus 485
- LCD for configuration
- Support password for secure screen
- Support real time clock for monitoring settings



Operation:

RS01-BN is a remote screen. It supports BACNet for monitoring data on a BACNet system. With this device you can monitoring or control many devices that support BACNet MSTP or Modbus RTU 485. All user fields name can be set by BACnet Protocol.

Electrical Rating:

Power Requirements	24 VAC +/-10% input @ 50 or 60 Hz
Power Consumption	1A @ 24 VAC
AC Power	NEC Class 2

Operating Environment

Ambient operating temperature:	32°F to 122°F (0°C to 50°C), <93% RH, non-condensing
Ambient operating environment	Operate in a dry location, which is protected from exposure to salt spray or other corrosive elements. Exposure to flammable or explosive vapors must be prevented.
Shipping and Storage environment	-13°F to 158°F (-25°C to 70°C), 5% to 95% RH, non-condensing



Remote Screen – LCD Display

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PIN CHAR

24 VAC/24VDC	24 VAC/DC	A+	B-
Power Supply	Power Supply	Signal Net +	Signal Net -

Button defines:

<ENT> go to update mode from view mode. Accept the value or press a button.

<UP> go to upper field

<DOWN> go to lower field.

<TRK> x10 value or change value On/Off.

<LEFT> go to previous screen or decrease a value.

<RIGHT> Go to next screen or increase a value.

LCD Screen definition:

User Screen (4 Pages with 32 Field):

Display value of set point, input sensor 1, input sensor 2, input sensor 3, input sensor 4, operation mode, output value 1, output value 2, error status....

Password Screen:

Use to enter the secure screen.

Setup screen:

Set up date, month, year / Hour, minute, second.

Set up baud rate and address of BACnet device.

Password protected mode:

Only allow user change settings by enter corrected password.

Boundary size (mm):

With x Height x Depth

163 x 102 x 50

Installation hole (mm):

With x Height

156 x 92

For more information please contact:

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Configurator Screen:

1. User Settings:
 - a. Old Password: Enter your old password when you want to change the password number.
 - b. New Password: Enter your new password when you change the password number.
 - c. Date / Month / Year: Enter the Date / Month and Year that you want to set up.
 - d. Hour / Minute / Second: Enter the Hour / Minute / Second that you want to set up.
 - e. Update button: When you enter old password and new password it will update password, otherwise it will update the time.
 - f. Reset button: Reset configuration of Screen.

2. BACnet Configuration:
 - a. MAC Address: MAC Address of BACnet when configure screen as BACnet. Modbus Address when configure Screen as Modbus.
 - b. Baud rate: Identify of Baud rate. It equal Actual Baud rate / 1000. Example: 9 ⇔ Baud rate = 9600. 38 ⇔ Baud rate = 38400.
 - c. Number of Screen: Define number of user screen. Value from 1..4
 - d. Number of Items: Define the number of item in user screen. Value from 0 .. 32
 - e. Protocol: Select the protocol for communication. Please note that, the screen is configured by BACnet Protocol. After Configure you can change the protocol to Modbus and use it.
 - f. Off Screen: The delay time to turn off screen. 0 mean not turn off the screen.

BACnet points for Configuration.

Instance Number	Object type	Object property	Display on Screen	Field Number	User Screen
0 → 7	AV	Name	Label Name	1 → 8	1
		Present Value	Value of field		1
		Unit	Unit of field		1
8	AV	Name	Name of Screen		1
9 → 16	AV	Name	Label Name	9 → 16	2
		Present Value	Value of field		2
		Unit	Unit of field		2
17	AV	Name	Name of Screen		2
18 → 25	AV	Name	Label Name	17 → 24	3
		Present Value	Value of field		3
		Unit	Unit of field		3
26	AV	Name	Name of Screen		3
27 → 34	AV	Name	Label Name	25 → 32	4
		Present Value	Value of field		4
		Unit	Unit of field		4
35	AV	Name	Name of Screen		4



Unit define for Screen

BACnet unit ID	BACnet Unit Description	Display on Screen
0	UNITS_SQUARE_METERS	1 0 ⇔ RUN / STOP
1	UNITS_SQUARE_FEET	1 0 ⇔ Alarm / Normal
2	UNITS_MILLIAMPERES	... mA
3	UNITS_AMPERES	... A
4	UNITS_OHMS	... Ohm
5	UNITS_VOLTS	... V
6	UNITS_KILOVOLTS	1 0 ⇔ Auto / Man
7	UNITS_MEGAVOLTS	1 0 ⇔ ON / OFF
8	UNITS_VOLT_AMPERES	.. VA
9	UNITS_KILOVOLT_AMPERES	1 0 ⇔ Start / Stop
19	UNITS_KILOWATT_HOURS	... KWH
20	UNITS_BTUS	... BTU
29	UNITS_PERCENT_RELATIVE_HUMIDITY	... %RH
48	UNITS_KILOWATTS	... KW
53	UNITS_PASCALS	... Pa
55	UNITS_BARS	... bar
56	UNITS_POUNDS_FORCE_PER_SQUARE_INCH	... PSI
62	UNITS_DEGREES_CELSIUS	... oC
64	UNITS_DEGREES_FAHRENHEIT	... oF
95	UNITS_NO_UNITS	
96	UNITS_PARTS_PER_MILLION	... PPM
98	UNITS_PERCENT	... %
124	UNITS_MILLIVOLTS	... mV

Modbus Point for Display Screen

Register ID	Register Type	Description	Value Type
1 → 32	Holding Register	Value of item in screen	Signed Int 16

Note: Modbus Register Value will device 10 in these units for easy read/write:

- UNITS_MILLIAMPERES
- UNITS_VOLTS
- UNITS_BTUS
- UNITS_BARS
- UNITS_POUNDS_FORCE_PER_SQUARE_INCH
- UNITS_DEGREES_CELSIUS
- UNITS_DEGREES_FAHRENHEIT
- UNITS_PARTS_PER_MILLION

Example: Write value: 231 into field with unit oC. Displayed value will be 23.1 oC.

For more information please contact:

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