

SA Series

Digital Setpoint Adjusters with LCD

Features

- Ultra slim wall-mount unit to match any decor
- Large easy to read Liquid Crystal Display (LCD), with LED backlight
- A stylish bi-directional rotating dial to provide ease of operation
- Adjustable 0-100% setpoint setting in 1% steps
- Provides 0-10 VDC proportional output
- Used as an either high limit or low limit device when its input terminals are connected to a proportional controller
- For either 24 V 50/60 Hz or 15-24 VDC supply voltage
- Choice of 0-10 VDC or 2-10 VDC proportional output
- Retain last entered settings of setpoint upon power resumption

VDC or 2-10 VDC or for use as a minimum position device, providing a low limit, or a maximum position device, providing a high limit, for the output signal from a modulating controller. The adjuster receives its 24 V 50/60 Hz or 15-24 VDC power supply through terminals 1 and 2.

The adjuster produces a proportional control signal of either 0-10 VDC or 2-10 VDC which is linear to the setpoint value of 0-100%. A proportional change in the position of the actuator between 0 and 100% will take place accordingly.

A JP1 jumper is available on the underside of the printed circuit board to facilitate field change of high and low limit settings.

The adjuster retains last entered settings of setpoint upon power resumption.



Ordering

To order, specify complete model number.

General

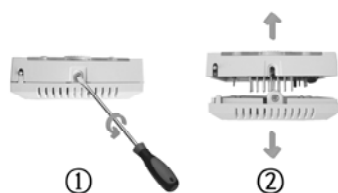
The SA Series digital setpoint adjusters are designed for the control of modulating actuators with an output range of 0-10

Specifications

Product model number	SA-01W
Power supply	24 V 50/60 Hz $\pm 15\%$ or 15-24 VDC $\pm 10\%$
Power consumption	1 VA @ 24 VAC
Display range	0 - 100%
Setpoint range	0 - 100%
0(2)-10 VDC output impedance	Minimum 50,000 Ω
0(2)-10 VDC internal impedance	Maximum 1,000 Ω
Output range	0-10 VDC or 2-10 VDC, jumper selectable Factory setting: 0 - 10 VDC
Input range	0 - 10 or 2 - 10 VDC
Enclosure	Material: self-extinguishing, molded ABS Finish: off white housing and dark gray faceplate
Protective class	IP30
Ambient/Storage Temperature Limits	0 to 50 $^{\circ}\text{C}$ / -30 to 50 $^{\circ}\text{C}$, 10% to 90% RH non-condensing
Wire connections	Non-removable terminal blocks, wire size 1 mm ² or 18 AWG solid copper recommended
Agency approval	CE Mark compliant to EMC Directive
Shipping Weight	0.12 kg (0.3 lb)
Dimensions	See Figure 4: Dimensions in mm

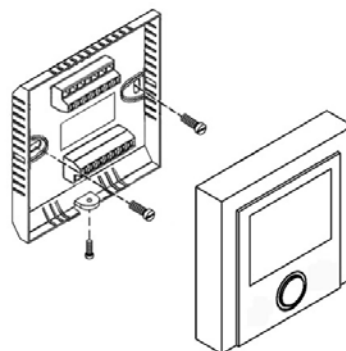
*The performance specifications above are nominal and subject to tolerances and application variables of generally acceptable industry standards.
The manufacturer shall not be liable for damages resulting from misapplication or misuse of its products.*

Figure 1: Cover Removal Procedure



1. Loosen the fixed screw.
2. Slightly twist the screw driver to crack open the cover from the base.
3. Hold the base firmly with one hand and remove the cover with another hand by pulling away from the base forcibly.

Figure 2: Mounting Details



Mounting

The SA Series digital setpoint adjusters are suitable for surface, flush or panel mounting and can be surface mounted or secured to a standard European 75x75x35 mm electrical box. Two mounting screws are included.

Figure 3: Display Control Unit and LCD Layout

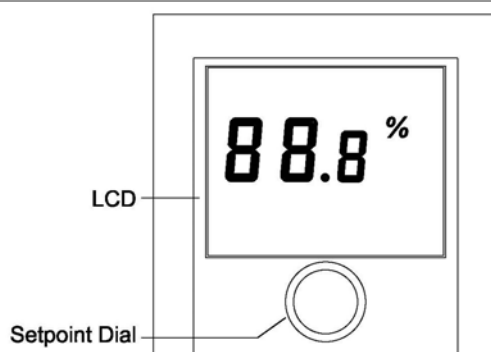


Figure 4: Dimensions in mm

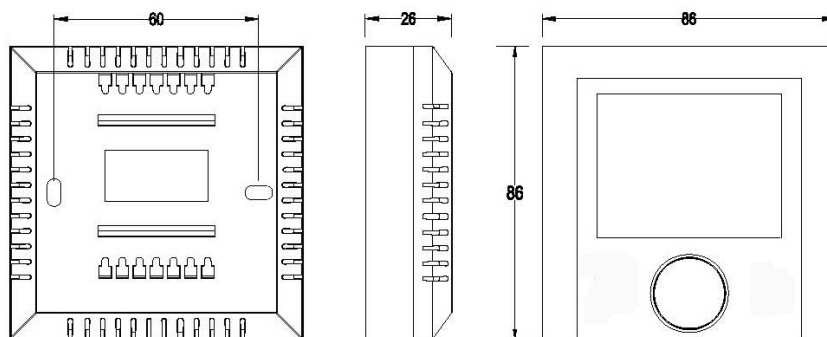
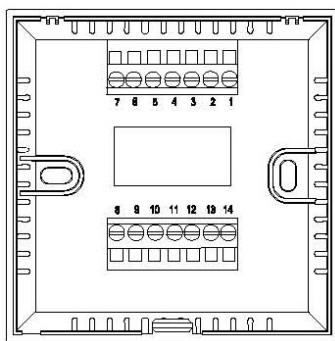
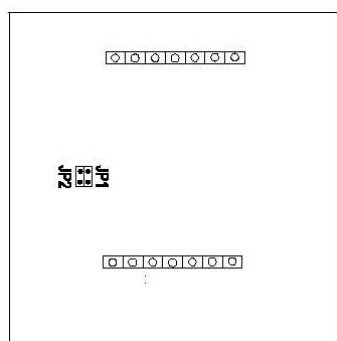


Figure 5: Wiring Terminals and Jumper Settings



Jumper Settings		
Jumper Number	Jumper in OPEN Position	Jumper in CLOSED Position
JP1	High limit setting	Low limit setting
JP2	For 2-10 VDC output	For 0-10 VDC output

Notes:

1. SA-1 works as a positioning device when JP1 is in closed position and no input signal is connected. This is a factory setting.
2. JP2 is available in 0-10 VDC/2-10 VDC output models only. Factory setting is 0-10 VDC.

Operation Notes

- LCD shows setpoint value constantly.
- Increase or decrease setpoint value by rotating the adjustment dial clockwise or counter-clockwise.
- The backlight will come on for 5 seconds when the rotating dial is turned.

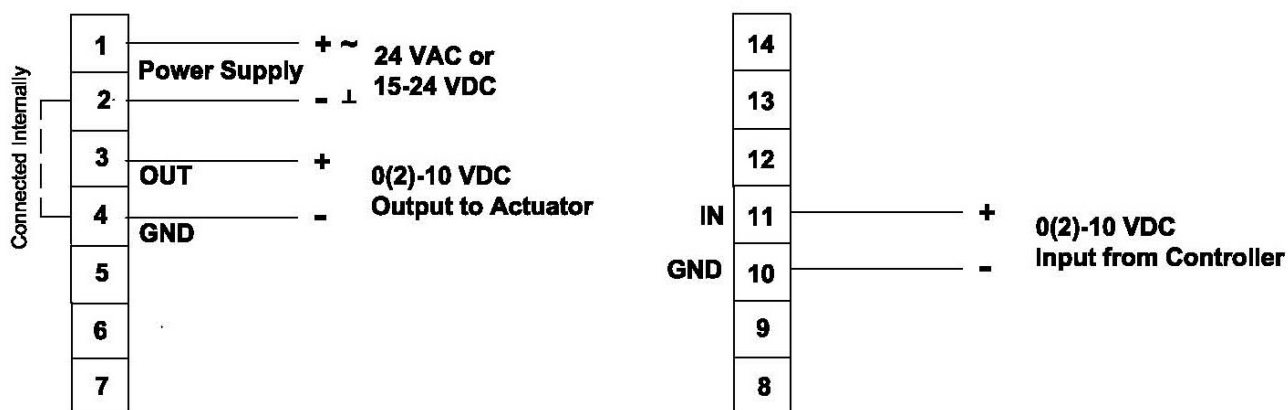
Figure 6: Wiring Diagram

WARNING

Incorrect wiring connection may cause permanent equipment damages to the device.

Wiring Notes

- Run the wiring away from any electrical motors or power wiring. Failure to do so may result in poor transmitter performance due to electrical noise.
- All wiring must be installed in accordance with local building codes.



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