



EL SERIES

AC & DC OUTPUT PANEL MOUNT SOLID STATE RELAYS

This installation sheet includes detailed mounting and wiring instructions which apply for most EL series SSRs.

Be sure to visit the product series' datasheet available at the Sensata website to complement this information. If you have questions or need additional information please contact Sensata Tech Support. Please read all mounting instructions before using your AC or DC Output Panel Mount Solid State Relay (SSR).

MOUNTING INSTRUCTIONS

Choose one of the two mounting options and follow the instructions.

Mounting on Heat Sink

- Select adequate heat sink (see thermal derating curves in product series' datasheet).
- Be sure that thermal pad is pre-installed before installing over the heat sink.
- EL series SSR mounting slots have a diameter of 0.16 in (4.0 mm). Two screws are needed (not included) to mount the EL onto heat sink (See fig. 1). Recommended screw size is 8-32 (UNC standard) or M4 (metric).
- Before applying full torque tighten down both screws until they contact the baseplate. Then, tighten them to 9.0-10.0 lb-in (1.0-1.13 Nm).
- For optimal thermal performance heat sink fins should be oriented vertically to promote natural convection airflow.

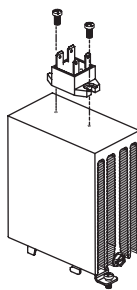
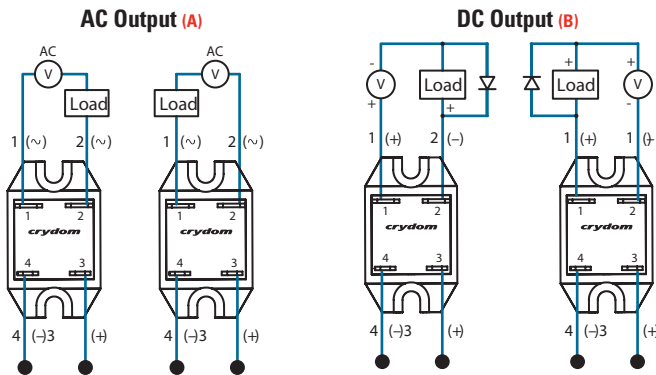


fig. 1 EL Series SSR mounted on heat sink

Mounting on Panel

- Locate the panel section on which the EL will be mounted. Panel mount surface must provide adequate heat sinking capability, uncoated, clean, flat (0.004 in/in recommended) and preferably aluminum.
- Be sure that thermal pad is pre-installed before installing over the panel.
- EL series SSR mounting slots have a diameter of 0.2 in (5.0 mm). Two screws are needed (not included) to mount the EL onto panel. Choose screw length considering the mounting surface hole depth and that the SSR flange thickness is 0.125 in (3.2 mm).
- Before applying full torque tighten down both screws until they contact the baseplate. Then, tighten them to 10 lb-in (1.13 Nm).

WIRING DIAGRAM



Terminals

Quick Connect type. Input: 3/16" x 0.032". Output: 1/4" x 0.032"

Transient Protection

Transients are common on AC power lines, and in extreme cases, may pose a risk for the proper operation and reliability of the SSR and its load.

The load which the SSR controls may also generate transients itself. Therefore, inclusion of transient protection for the SSR is highly recommended.

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

ORDERING OPTIONS

| | | | | | | |
|---|------|----|---|----|---|---|
| EL | 240A | 30 | R | 05 | N | P |
| Series | | | | | | |
| EL | | | | | | |
| Operating Voltage | | | | | | |
| 240A: 24-280 VAC | | | | | | |
| 100D: 3-100 VDC | | | | | | |
| Rated Load Current | | | | | | |
| 5: 5 Amps | | | | | | |
| 10: 10 Amps | | | | | | |
| 20: 20 Amps | | | | | | |
| 30: 30 Amps (AC Output Only) | | | | | | |
| Switching Type | | | | | | |
| Blank: Zero Voltage Turn-On | | | | | | |
| R: Instantaneous Turn-On (AC Output only) | | | | | | |
| Control Voltage | | | | | | |
| 05: 4-8 VDC | | | | | | |
| 12: 10-14 VDC | | | | | | |
| 24: 21-27 VDC | | | | | | |
| Termination | | | | | | |
| Blank: Standard Quick Connect | | | | | | |
| N: 90° bent Quick Connect | | | | | | |
| (30 Amps AC Output and 10 & 20 Amps DC Output only) | | | | | | |
| Overvoltage Protection | | | | | | |
| Blank: Not included | | | | | | |
| P: Included (30 Amps, Zero Voltage models only) | | | | | | |

Required for valid part number
For options only and not required for valid part number

Internal transient protection is standard in certain Crydom SSR models, and optionally available in others. The user may also install transient protection external to the SSR for additional protection.

An inductive load will produce harmful transient voltage when it is turned off. The more perfect the switch, the larger the transient voltages. The MOSFET output is so nearly ideal switch that the transient voltages produced by seemingly "non-inductive" loads can cause damage if not suppressed. Diodes should be fast recovery type with PIV rated greater than supply voltage.^(B)

Important Considerations

Be sure to use input and output voltages within operating ranges.

LED indicates only input status. It does not represent output status.

GENERAL NOTES

^(A) Load can be wired to either terminal 1 or terminal 2. Proper polarity must be observed for the DC control power supply with terminal 3 being positive with respect to terminal 4.

^(B) Inductive loads should be diode suppressed to prevent damage to the relay

CONTACT US

Americas

+1 (877) 502 5500
sales.crydom@sensata.com

Europe, Middle East & Africa

+44 (1202) 416170
ssr-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +86 (2) 27602006
ext 2808