



DRA1 SERIES | MP AC & DC OUTPUT

DIN RAIL MOUNT



Features

- 10mm Single Channel DIN Rail Mount SSR Assembly
- AC Ratings up to 280 VAC and 4 Amps
- DC Ratings for 60 VDC and 3 Amps
- N.O. AC or DC output, N.C. Output (-B)
- 3-32 VDC Control
- Cage style screw terminals for easy connection
- Fits standard 35mm DIN rail



PRODUCT SELECTION

| Control Voltage | 3A | 3A | 4A |
|--------------------|--------------|---------------|--------------|
| 3 - 32 VDC Control | DRA1-MP120D3 | DRA1-MP240D3 | DRA1-MP240D4 |
| 3 - 32 VDC Control | DRA1-MPDCD3 | DRA1-MPDCD3-B | |



SPECIFICATIONS

AC Output ⁽¹⁾

| Description | DRA1-MP120D3 | DRA1-MP240D3 | DRA1-MP240D3 |
|--|--------------|--------------|--------------|
| Operating Voltage [VAC] | 12 - 140 | 24 - 280 | 24 - 280 |
| Transient Overvoltage [Vpk] | 400 | 600 | 600 |
| Maximum Load Current [Arms] ⁽²⁾ | 3 | 3 | 4 |
| Minimum Load Current [Arms] | 0.02 | 0.02 | 0.02 |
| Maximum Off-State Leakage Current @ Rated Voltage [mArms] | 5 | 5 | 5 |
| Maximum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽³⁾ | 200 | 200 | 200 |
| Maximum 1 Cycle Surge Current (50/60 Hz) [Apk] | 86 / 90 | 86 / 90 | 125 / 130 |
| Maximum I ² t for Fusing (50/60 Hz, ½ Cycle) [A ² Sec] | 39 / 36 | 39 / 36 | 78 / 72 |
| Maximum On-State Voltage Drop @ Rated Current [Vpk] | 1.6 | 1.6 | 1.6 |

DC Output ⁽¹⁾

| Description | DRA1-MCPDCD3 | DRA1-MPDCD3-B |
|---|--------------|---------------|
| Operating Voltage [VDC] | 3 - 60 | 3 - 60 |
| Maximum Load Current [Adc] | 3 | 3 |
| Minimum Load Current [Adc] | 0.02 | 0.02 |
| Maximum Surge Current [Adc] | 5 | 5 |
| Maximum On-State Voltage Drop @ Rated Current [Vdc] | 1.5 | 1.5 |

Input ⁽¹⁾

| Description | DRA1-MPxxxDx | DRA1-MPDCD3 | DRA1-MPDCD3-B |
|------------------------------|--------------|-------------|---------------|
| Control Voltage Range | 3 - 32 VDC | 3 - 32 VDC | 3 - 32 VDC |
| Must Turn-On Voltage | 3.0 VDC | 3.0 VDC | 1.0 VDC |
| Must Turn-Off Voltage | 1.0 VDC | 1.0 VDC | 3.0 VDC |
| Typical Input Current | 2.6 mAdc | 2.6 mAdc | 2.6 mAdc |
| Nominal Input Impedance | 1500 Ohm | 1500 Ohm | 1500 Ohm |
| Maximum Turn-On Time [msec] | 8.33 | 0.10 | 0.10 |
| Maximum Turn-Off Time [msec] | 8.33 | 0.10 | 0.10 |

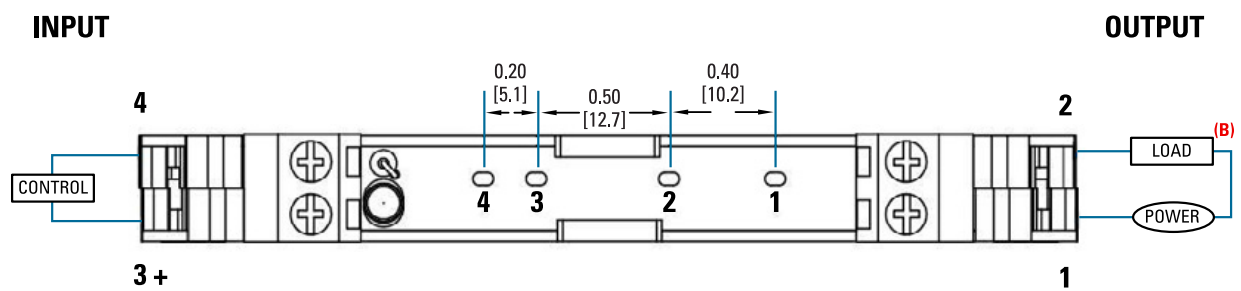
General ⁽¹⁾

| Description | Parameters |
|--|----------------------------|
| Dielectric Strength, Input/Output (50/60 Hz) | 4000 Vrms |
| Maximum Insulation Resistance (@ 500 VDC) | 10 ⁹ Ohm |
| Maximum Capacitance, Input/Output | 8 pF |
| Ambient Operating Temperature Range | -40 to 80°C |
| Ambient Storage Temperature | -40 to 125°C |
| Weight (Typical) | 0.08 oz (36.4 g) |
| Encapsulation | Thermally Conductive Epoxy |

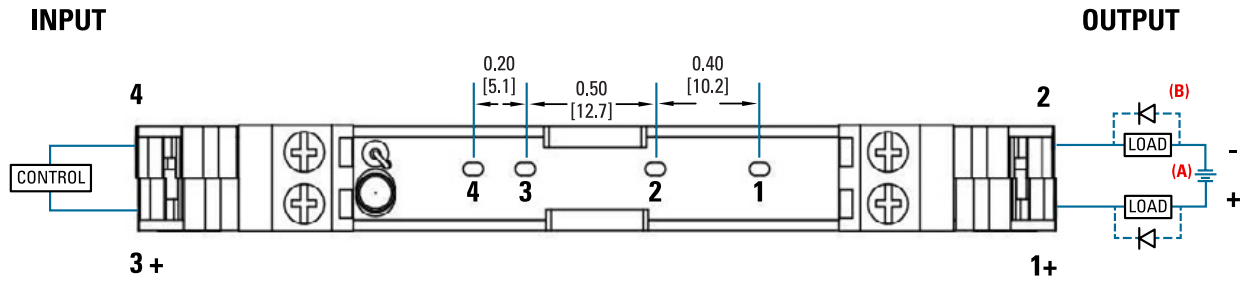


WIRING DIAGRAMS ^(A)

AC Output



DC Output



(A) Wiring diagram is identical for each individual section whether it is a single or four channel assembly.

(B) Load can be placed on either side of "Power"

For additional information or specific questions, contact Sensata Technical Support.

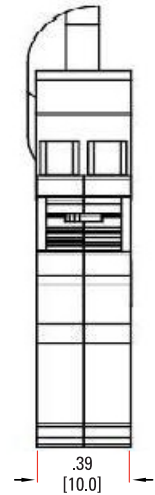
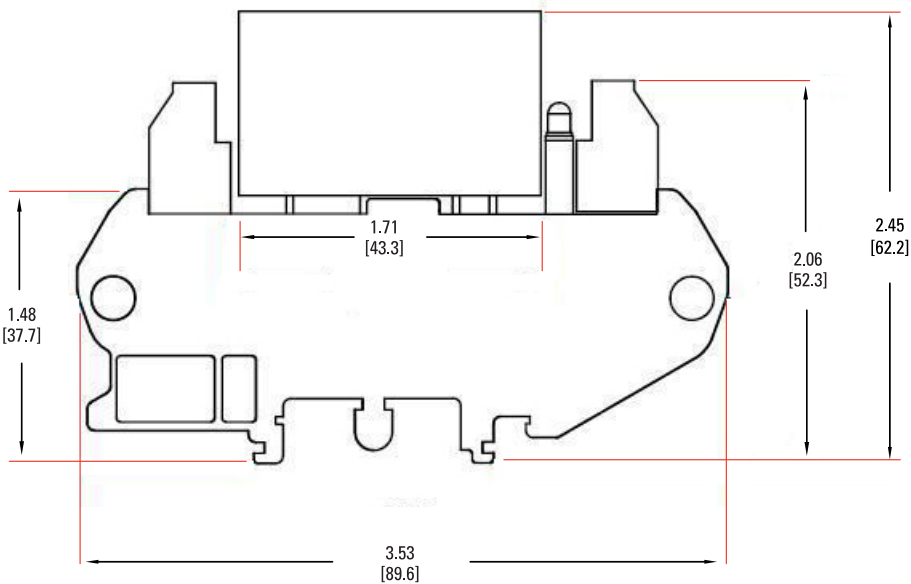


MECHANICAL SPECIFICATIONS

Tolerances: ± 0.02 in / 0.5 mm

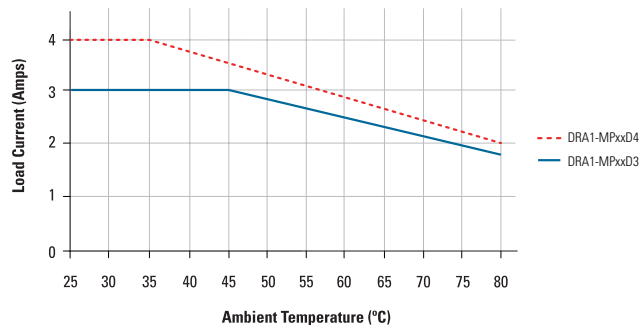
All dimensions are in inches [millimeters]

MCX/MP Series SSR



THERMAL DERATE INFORMATION

DRA1-MP Derating Curve





GENERAL NOTES

- (1) All parameters at 25 °C unless otherwise specified.
- (2) See Derating Chart on page 4.
- (3) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1

For additional information or specific questions, contact Sensata Technical Support.



AGENCY APPROVALS & CERTIFICATIONS



- Designed in accordance with the requirements of IEC 62314
- UL: E116950 (Relay Only)
- CSA: LR 81689 (AC Output Relay Only)
- VDE: 5900 UG (AC Output Relay Only)



WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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

CONTACT US

Americas

+1 (877) 502 5500 – Option 2

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 +886 (2) 27602006

ext 2808