



## DRS SERIES

### DIN RAIL MOUNTABLE SOCKETS

The DRS Series provides a convenient and easy way to install most of the Crydom single-in-line solid state relays on a standard DIN rail base. This product family offers both the preassembled SSR / Socket sets (DRA) and "socket only" (DRS) options. Both are available in either single or four channel versions. For complete assembly part numbers and availability, see DRA Series at [www.sensata.com](http://www.sensata.com).

## INSTALLATION INSTRUCTIONS

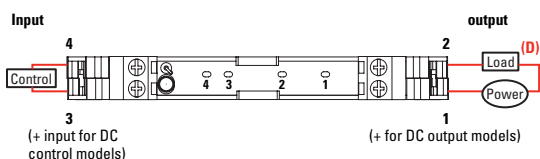
Please read all of the assembly instructions before beginning assembly of the DRS sockets.

- Insert and solder each component as noted below including the selected SSR. Components are placed such that their leaded ends exit the board on the side with the copper circuit traces. Sensata recommends use of RoHS compliant solder. <sup>(A)</sup>
- The LED input status indicator plastic standoff should be installed on the LED leads prior to insertion in the PC board. Observe LED lead polarity (see below LED diagram to determine lead polarity), and place the corresponding LED leads in the holes using the (+) mark on the PC board as reference.
- The input terminal block (marked 3 & 4) is placed in the holes on the PC board adjacent to the LED with its wire entry openings facing outward toward the end of the board.
- The output terminal block (marked 1 & 2) is placed in the holes on the opposite end of the PC board also with its wire entry openings facing outward toward the end of the board.
- Select and install the correct resistor for the SSR control voltage range (see instructions below on resistor selection). The resistor should have one of its leads bent at 180° over its body such that each lead can be placed through the holes in the PC board adjacent to the LED input status indicator.
- Insert the SSR leads into the PC board and solder to the board. Care should be taken to place the SSR as near to perpendicular to the PC board as possible so as not to create an interference with adjacent assemblies when installed on the application DIN rail.
- The final step is to place the PC board with soldered components into the plastic housing. The PC board assembly must be placed in the housing pieces as shown in the assembly diagrams. **Note:** for the 4 channel assembly, there is an additional extruded plastic piece that supports the board. The PC board assembly should be slid into the slots in this supporting piece before attaching the right and left side pieces. **Caution!** do not over tighten the screws attaching the side pieces. Recommended torque is 6 to 8 lb-in (0.7 to 0.9 Nm).

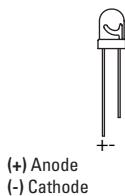
## ORDERING OPTIONS

DRS	-	1
<b>Series</b>		
DRS		
<b>Number of Channels</b>		
1: One channel		
4: Four channels		

## WIRING DIAGRAM (B, C)



### LED DIAGRAM



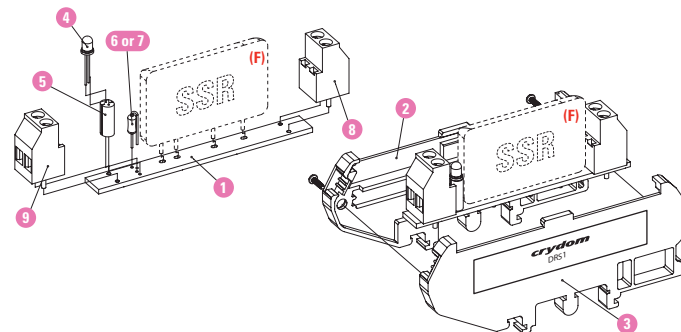
### Features

- 10 mm Single channel and 44 mm Four channel DIN rail mount sockets available.
- Input status LED for either 3 to 15 or 15 to 32 VDC control applications.
- Cage style screw terminals for easy and reliable wire connection.
- Socket clip fits all standard 35 mm DIN rail profiles

## SINGLE CHANNEL SOCKET (E)

### List of parts included in the DRS1 kit

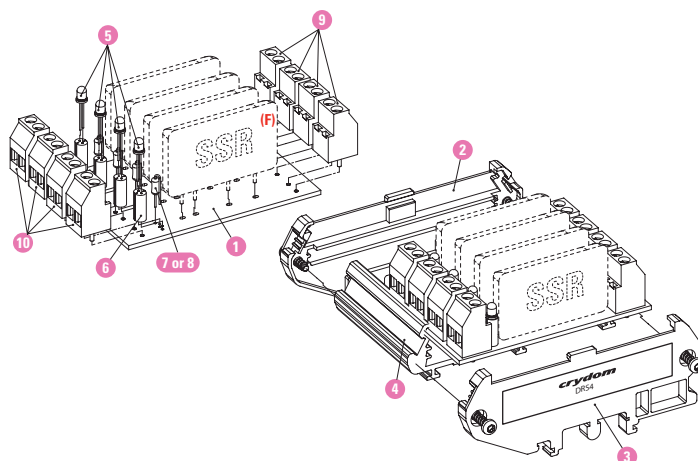
	Quantity
1 Printed circuit board	1
2 Housing - right side (includes 2 screws)	1
3 Housing - left side	1
4 Green LED	1
5 LED standoff	1
6 Resistor 1 K $\Omega$ , 0.25 W (brown-black-red)	1
7 Resistor 4.7 K $\Omega$ , 0.25 W (yellow-violet-red)	1
8 Output terminal block (marked 1 & 2)	1
9 Input terminal block (marked 3 & 4)	1



## FOUR CHANNEL SOCKET (E)

### List of parts included in the DRS4 kit

	Quantity
1 Printed circuit board	1
2 Housing - right side (includes 2 screws)	1
3 Housing - left side (includes 2 screws)	1
4 Profile extrusion	1
5 Green LED	4
6 LED standoff	4
7 Resistor 1 K $\Omega$ , 0.25 W (brown-black-red)	4
8 Resistor 4.7 K $\Omega$ , 0.25 W (yellow-violet-red)	4
9 Output terminal block (marked 1 & 2)	4
10 Input terminal block (marked 3 & 4)	4





## GENERAL NOTES

- <sup>(A)</sup> The temperature of the SSR pins must not exceed 260°C / 500°F for more than 3 seconds, with an allowable iron temperature of 350°C / 662°F to prevent possible damage to the components during assembly or repair.
- <sup>(B)</sup> Wiring diagram is identical for each individual section whether it is a single or four channel assembly.
- <sup>(C)</sup> Maximum output rating for DRS Series sockets is 300 VAC / 8 Amps regardless of chosen SSR. Vertical mounting operation is recommended.
- <sup>(D)</sup> For AC loads, the AC line can be wired to either SSR/socket terminal 1 or terminal 2. The AC load may also be wired on either the line or neutral side of the SSR. For DC loads, the proper polarity must be observed for the power supply, load and SSR/socket with terminal 1 being positive with respect to terminal 2.
- <sup>(E)</sup> Use 1 K  $\Omega$  (brown-black-red) resistor for applications with control voltage range between 3-15 VDC and 4.7 K  $\Omega$  (yellow-violet-red) resistor for applications with control voltage range between 15-32 VDC. LED status indicator is not required for proper function of the SSR and may be omitted. No resistors are needed when LED is not installed. For AC input SSR control applications LED status indicator and resistor must not be used.
- <sup>(F)</sup> SSR(s) purchased separately.

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