

# Controller rack modules

The model 5300 racks are designed for industrial environments and provide a solid metal enclosure for the controller electronics. The rigid metal enclosure combined with integral screw lockdown locations for all modules enables the Model 5300 automation controllers to be used in high vibration applications. The rack design incorporates a high-performance ventilation design to optimize passive cooling of all electronics. Another benefit of the all-metal design is that it provides excellent electrical isolation for the Model 5300 controller.

Within the rack is an active backplane that provides power and communication connections to all modules. It automatically senses when I/O modules are plugged in, allowing automatic controller configuration. The backplane supplies isolated control power and I/O power to all modules. This architecture allows the I/O modules to internally source DC I/O power, simplifying wiring and panel layout. In addition to power, the backplane provides high speed communications between the CPU module and all I/O modules. The backplane also allows I/O modules to communicate directly with each other, further accelerating logic execution.

Racks are available in three sizes: 2, 4, and 8-slot versions. Each rack slot can accommodate a single I/O module. For larger applications, up to four racks can be joined together within a Model 5300 automation controller. The racks are joined by either a non-powered Rack bridge or by a Power bridge that has an embedded power supply. This allows the engineer to optimize the power distribution within the system.

Three mounting options are available for the Model 5300 controller:

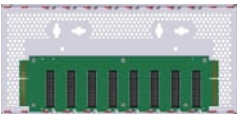
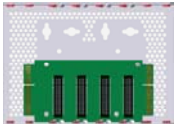
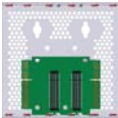

- DIN rail
- horizontal panel mount
- vertical panel mount (not available for 0- or 2-slot racks)

## 5300 Rack Features

- Rugged all-metal design
- Integral panel or DIN mounting
- Module screw lockdown capability
- Available in 2, 4, and 8-slot versions
- Active backplane automatically senses modules
- Solid earth grounding
- Excellent electromagnetic immunity
- IP20 Protection

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# 5300 Automation Controller

|                 | R3-08A  | R3-04A  | R3-02A  | R3-90A  |
|-----------------|---|---|---|---|
|                 |  |  |  |  |
| Number of slots | 5300 8-slot rack  | 5300 4-slot rack  | 5300 2-slot rack  | 5300 rack bridge, no slots, no power supply; used to join two rack sections         |

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