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# REM-1190

# Specifications

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2025-03-13



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# REM-11190 Datasheet



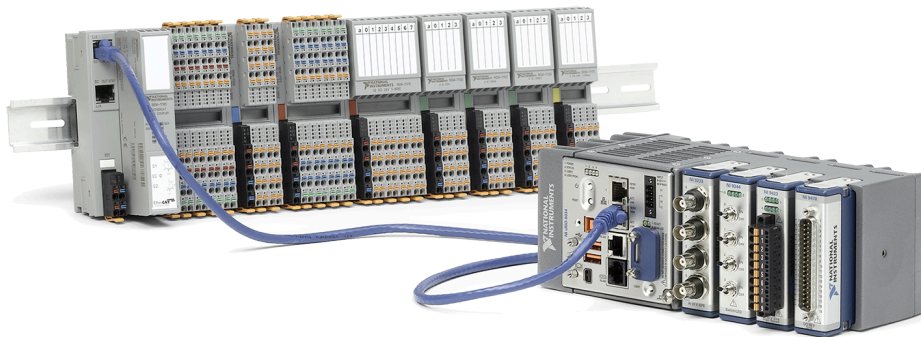
- Supplies up to 4 A to module communication bus
- 24 V supply voltage with a maximum voltage range of 19.2 VDC to 30 VDC
- -25 °C to 60 °C temperature range to meet a variety of application and environmental needs

## Remote I/O Overview

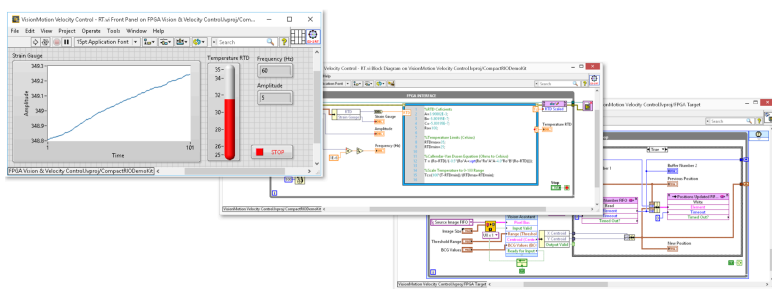
Remote I/O is a low-cost, modular system for simple machine control and measurements. A Remote I/O system consists of an EtherCAT bus coupler and individual modules mounted on a DIN rail and is controlled from a Real-Time controller such as a CompactRIO Controller or Industrial Controller.

- Round out your system with low-cost I/O for simple tasks while your controller handles advanced tasks such as image processing and high-speed or specialty measurements.
- Add only the I/O you need where you need it with the modular, distributed system.
- Connect multiple Remote I/O systems and EtherCAT chassis to meet your I/O needs.

**Figure 1.** NI Remote I/O System



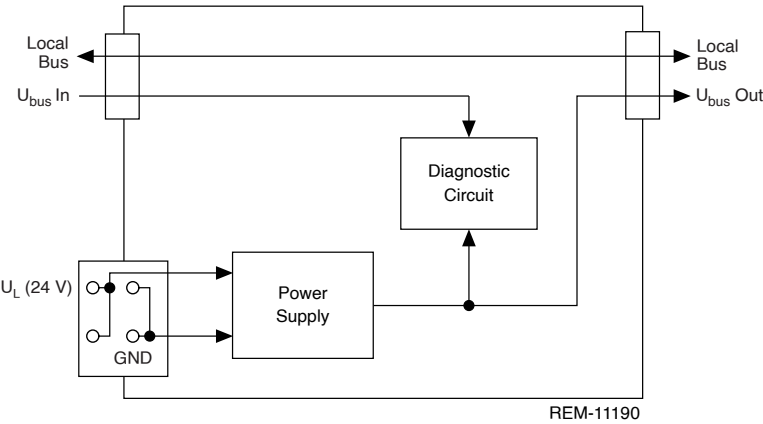
## NI Embedded Control and Monitoring Suite



- Use a single toolchain for every phase of your design cycle – from modeling and simulation, to prototyping and validation, to deployment and beyond.
- NI ECM Suite combines LabVIEW Professional Development System with add-on software for programming Real-Time, FPGA, SoftMotion and Vision Acquisition devices.

- Combine LabVIEW with your expertise to efficiently design a system by integrating graphical, C code, .m files, and state-based simulations in one environment.
- Reduce development time with built-in constructs to manage low-level tasks such as timing and memory in an intuitive programming environment.
- Accelerate your development with over 950 available signal processing, analysis, control, and mathematics functions.
- Get to solutions faster with extensive support and training that scale with the complexity of your systems.

## REM-11190 Circuitry



## REM-11190 Specifications

The following specifications are typical for the range -25 °C to 60 °C unless otherwise noted.

### I/O Supply

Supply of communications power $U_L$	24 VDC
Maximum permissible voltage range	19.2 VDC to 30 VDC (including all tolerances, including ripple)

Current supply at $U_{Bus}$	4 A, maximum
Current consumption from $U_L$	1.2 A, maximum ( $I_{Bus} = 4$ A; $U_L = 19,2$ V)
Power consumption at $U_L$	22 W, maximum ( $I_{Bus} = 4$ A)
External fuse rating	8 A



**Caution** Connect an external fuse to the 24 V  $U_L$  supply to protect against polarity reversal. The power supply must provide four times the nominal current of the external fuse. This rating ensures that the fuse trips in the event of an error.

## Remote I/O Local Bus

Connection method	Bus connector
Transmission speed	100 MBit/s

## Physical Characteristics



**Note** For more information about connecting your device, refer to the device getting started guide on [ni.com/manuals](https://ni.com/manuals)

Spring-terminal wiring	
Gauge	0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup> (24 AWG to 16 AWG), solid or stranded

Wire strip length	8.0 mm (0.31 in.) of insulation stripped from the end
Wires per connection	pizza
Dimensions <sup>[1]</sup>	126.1 mm (4.96 in.) × 35.0 mm (1.38 in.) × 54.0 mm (2.13 in.)
Weight <sup>[2]</sup>	107 g (3.77 oz)



**Note** For dimensional drawings of the REM-11190, visit [ni.com/dimensions](https://ni.com/dimensions) and search by module number.

## Electromagnetic Compatibility

This product meets the requirements of the following EMC standards for electrical equipment.

- EN 61000-4-2 (IEC 61000-4-2): Electrostatic discharge (ESD); Criterion B; 6 kV contact discharge, 8 kV air discharge
- EN 61000-4-3 (IEC 61000-4-3): Electromagnetic fields; Criterion A; Field intensity: 10 V/m
- EN 61000-4-4 (IEC 61000-4-4): Fast transients (burst); Criterion B, 2 kV
- EN 61000-4-5 (IEC 61000-4-5): Transient surge voltage (surge); Criterion B; DC supply lines:  $\pm 0.5$  kV/ $\pm 0.5$  kV (symmetrical/asymmetrical)
- EN 61000-4-6 (IEC 61000-4-6): Conducted interference; Criterion A; Test voltage 10 V
- EN 61000-6-2: Noise immunity
- EN 61000-6-3: Noise emission
- EN 55022: Radio interference properties; Class B

## CE Compliance

- 2014/30/EU; Electromagnetic Compatibility Directive (EMC)

## Shock and Vibration

Vibration resistance (EN/IEC 60068-2-6)	5 g
Shock (EN/IEC 60068-2-27)	30 g
Continuous shock (EN/IEC 60068-2-27)	10 g

## Environmental

Operating temperature	-25 °C to 60 °C
Storage temperature	-40 °C to 85 °C
Ingress protection	IP20
Protection class	III, EN/IEC 61140, VDE 0140-1
Operating humidity	5% to 95%, non-condensing
Storage humidity	5% to 95%, non-condensing
Maximum altitude	3,000 m
Air pressure	70 kPa to 106 kPa



Indoor use only.