
cRIO-9805

Specifications

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Contents

cRIO-9805 Specifications..... 3

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Definitions

Warranted specifications describe the performance of a model under stated operating conditions and are covered by the model warranty.

Characteristics describe values that are relevant to the use of the model under stated operating conditions but are not covered by the model warranty.

- **Typical** specifications describe the performance met by a majority of models.
- **Nominal** specifications describe an attribute that is based on design, conformance testing, or supplemental testing.

Specifications are **Typical** unless otherwise noted.

Conditions

Specifications are valid for -40 °C to 70 °C unless otherwise noted.

Network Interface

Network ports used	<p>TCP:830 (configuration only)</p> <p>TCP:2537 (configuration only)</p> <p>UDP:5353 (configuration only)</p> <p>TCP:5353 (configuration only)</p> <p>UDP:7865 (configuration only)</p> <p>UDP:8463 (configuration only)</p>
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Network IP configuration	DHCP + Link-Local
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Ethernet

Number of ports	4 ports, internally switched ¹
Network interface	1000 Base-TX, full-duplex 1000 Base-TX, half-duplex 100 Base-TX, full-duplex 100 Base-TX, half-duplex 10 Base-T, full-duplex 10 Base-T, half-duplex
Communication rates	10/100/1000 Mbps, auto-negotiated
Maximum cabling distance	100 m/segment
Maximum hops per line	15

Timing and Synchronization

Protocol	IEEE 802.1AS for network synchronization over 1000 Base-TX, full-duplex
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1. This allows for line topologies or network redundancy.

Network synchronization accuracy	<1 μ s
Network synchronization accuracy with optimized configuration	<100 ns

Power Requirements

Maximum power consumption	5 W
Power supply voltage	9 V to 30 V
Power connector wiring	
Power wire gauge ²	0.20 mm ² to 1.31 mm ² (24 AWG to 16 AWG)
Torque for screw terminals	0.20 N · m to 0.25 N · m (1.8 lb · in. to 2.2 lb · in.)
Power connector securement	
Securement type	Screw flanges provided
Torque for screw flanges	0.20 N · m to 0.25 N · m (1.8 lb · in. to 2.2 lb · in.)

Physical Characteristics



Tip For two-dimensional drawings and three-dimensional models of the cRIO-9805, visit ni.com/dimensions and search by module number.

2. NI recommends using ferrules for stranded wires.

Weight	406 g (14.3 oz)
Dimensions	30.0 mm × 88.1 mm × 106.9 mm (1.18 in. × 3.47 in. × 4.21 in.)

Environmental Characteristics

Temperature and Humidity

Temperature	
Operating	-40 °C to 70 °C
Storage	-40 °C to 85 °C
Humidity	
Operating	10% RH to 90% RH, noncondensing
Storage	5% RH to 95% RH, noncondensing
Ingress protection	IP40
Pollution Degree	2
Maximum altitude	5,000 m

Shock and Vibration

Operating vibration

Random	5 g RMS, 10 Hz to 500 Hz
Sinusoidal	5 g, 10 Hz to 500 Hz
Operating shock	30 g, 11 ms half sine; 50 g, 3 ms half sine; 18 shocks at 6 orientations