

# CR1000 and CR3000 HMIs

Red Lion Automation Series



## ▶▶▶ Operator Interface Panels

CR1000 and CR3000 HMIs provide industry-leading protocol conversion and connectivity choices along with enhanced visual display features to deliver operator interface devices that easily scale and adapt as requirements change.

The CR1000 and CR3000 automation HMIs from Red Lion combine an ever-expanding list of over 300 industrial drivers with the intuitive and powerful Crimson 3.1 development platform to create an operator experience designed to easily adapt as needs change and operations grow. Basic requirements for machine interface and protocol conversion are easily handled by the CR1000 products, while the CR3000 HMIs address more advanced needs with real-time data logging and a built-in web server.



### INDUSTRY APPLICATIONS

- > Factory Automation
- > OEM Machine Builders
- > Automotive
- > Food & Beverage
- > Water/Wastewater

### PRODUCT HIGHLIGHTS

- > NEMA 4X, IP66 Front Panel Rating
- > Industrial Environmental Specifications
  - Wide operating temperature
  - High shock and vibration tolerance
  - CE, UL/cUL, UL/cUL Hazardous
- > Supports over 300 Industrial Drivers
- > SD Card for database upload/download
- > Built-In Web Server for Remote Access\*
- > Real-Time Data Logging\*

### FEATURES & BENEFITS

- > Full-color HMI touchscreen
  - A variety of 4.3" to 15" models with widescreen (model dependent) ensures the right fit for virtually any application
  - 16M colors
- > Industry-leading protocol conversion
  - Communicate with over 300 protocols
  - Easily convert between serial, USB and Ethernet devices
  - Convert up to 6 protocols simultaneously with CR1000 and up to 15 with CR3000
  - Manage multi-vendor environments with ease
- > Powerful Integration Capabilities
  - Crimson 3.1 software enables point-and-click configuration
  - Updated 3D symbols and primitives create a modern operator experience
  - Ethernet, USB and serial ports make communication simple
  - Robust web server\* provides remote access and control to reduce costly site visits
  - Send email and/or SMS notifications on alarm conditions\*
  - Built-in data logging enhances troubleshooting and helps meet regulatory requirements
  - Automate population of data values using SQL Queries feature\*

\* Model dependent

industrial  
automation



# ▶▶▶ CR1000 and CR3000 Specifications

## COMMUNICATION PROPERTIES

### USB Ports

#### USB Device:

CR1000 and CR3000 (All Models) - (1) USB Device  
Type B adheres to USB specification 1.1

#### USB Host:

CR3000 (4.3") – (1) USB Host port  
CR3000 (7", 10.4", 15") – (2) USB Host ports  
Type A adheres to USB specification 2.0 and supports full-speed data transfers with hardware overcurrent protected (0.5 A max per port)

Serial Ports for programming or communications: Format/Baud rates independently configurable

CR1000 (All) - One (1) RS232 and One (1) RS232/RS422/RS485 selectable

CR3000 (4.3") - Two (2) RS232 and One (1) RS422/RS485

CR3000 (7", 10.4", 15") - Two (2) RS232 and Two (2) RS422/RS485

Ethernet Ports: 1500 Vrms network isolation

CR1000 (All) - One (1) 10/100 BASE-T(X) port (RJ45)

CR3000 (4.3") - One (1) 10/100 BASE-T(X) port (RJ45)

CR3000 (7", 10.4", 15") - Two (2) 10/100 BASE-T(X) ports (RJ45)

## POWER INPUT

CR1000 (All models) 24 VDC +/- 20%

CR3000 (All models) 10 to 30 VDC

Must use a Class 2 circuit according to National Electrical Code (NEC), NFPA-70 or Canadian Electrical Code (CEC), Part I, C22.1 or a Limited Power Supply (LPS) according to IEC 60950-1 or Limited-energy circuit according to IEC 61010-1. Power connection via removable three position terminal block.

Battery: Lithium coin cell

Typical lifetime of 5 years

## POWER CONNECTION

High compression cage-clamp terminal block

Wire Strip Length: 0.3" (7.5 mm)

Wire Gauge Capacity: 12 to 24 AWG (3.31 to 0.20 mm<sup>2</sup>) copper wire

Torque: 4.4-5.3 inch-lbs (0.5-0.6 N-m)

## NETWORK MEDIA

10BaseT: ≥ Cat3 cable

100BaseTX: ≥ Cat5 cable

## ENVIRONMENTAL

Operating Temperature: -10°C to 50°C

Storage Temperature: -20°C to 70°C

Operating Humidity: 0 to 85% (non condensing)

Operating Altitude: Up to 2000 meters

Shock: 30 g per IEC 68-2-27

Vibration: 2 g @ 5-500 Hz per IEC 68-2-6

## CERTIFICATION & COMPLIANCE

CE Approved

Immunity: IEC/EN 61000-6-2 for Industrial Locations

Emissions: IEC/EN 6100-6-4 for Industrial Locations; CISPR 11 Class A

Safety: IEC/EN 61010-1

RoHS Compliant

UL Listed

Class I, Division 2, Groups A, B, C and D for CR3000 only

Type 4X Indoor / IP66 Enclosure rating (front face only)

## MECHANICAL

Construction: Polycarbonate enclosure with NEMA 4X/IP66 rating for indoor use when correctly fitted with the gasket provided. Installation Category II, Pollution Degree 2.

Weight:

CR1000 4.3" model – 15.0 oz (425 g)

CR1000 7" model – 1.91 lb (868 g)

CR1000 10.4" model – 3.08 lb (1.395 Kg)

CR3000 4.3" model – 1.00 lb (454 g)

CR3000 7" model – 2.01 lb (913 g)

CR3000 10.4" model – 3.16 lb (1.435 Kg)

CR3000 15" model – 4.12 lb (2.155 Kg)

Specifications are subject to change. Visit [www.redlion.net](http://www.redlion.net) for more information.

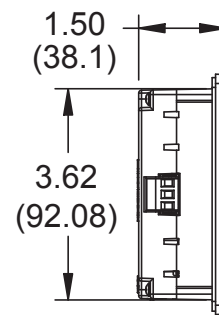
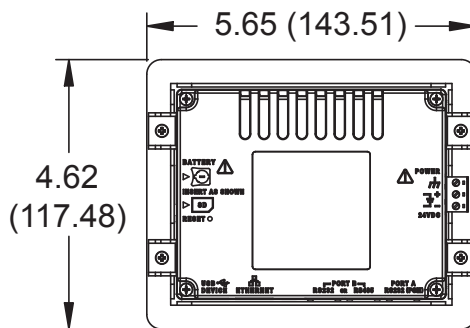
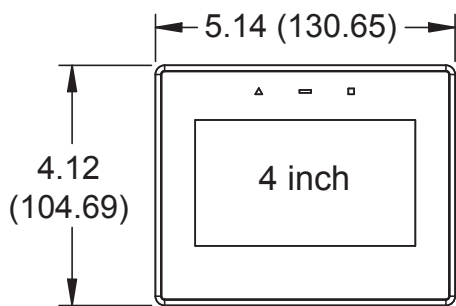
## CR1000 and CR3000 HMIs Ordering Guide

| MODEL NUMBER*      | DESCRIPTION                               | SIZE (IN.) | PIXELS     | SERIAL/ ETHERNET PORTS | USB HOST | DATA LOGGING & WEB SERVER | EXPANSION PORT | SD CARD SLOT |
|--------------------|---|------------|------------|------------------------|----------|---------------------------|----------------|--------------|
| CR1000-04000-00210 | 4.3" HMI                                  | 4.3        | 480 x 272  | 2/1                    | 0        | No                        | No             | Yes          |
| CR1000-07000-00210 | 7" HMI                                    | 7          | 800 x 480  | 2/1                    | 0        | No                        | No             | Yes          |
| CR1000-10000-00210 | 10.4" HMI                                 | 10.4       | 800 x 600  | 2/1                    | 0        | No                        | No             | Yes          |
| CR3000-04000-00310 | 4.3" HMI with Data Logging and Web Server | 4.3        | 480 x 272  | 3/1                    | 1        | Yes                       | Yes            | Yes          |
| CR3000-07000-00420 | 7" HMI with Data Logging and Web Server   | 7          | 800 x 480  | 4/2                    | 2        | Yes                       | Yes            | Yes          |
| CR3000-10000-00420 | 10" HMI with Data Logging and Web Server  | 10.4       | 800 x 600  | 4/2                    | 2        | Yes                       | Yes            | Yes          |
| CR3000-15000-00420 | 15" HMI with Data Logging and Web Server  | 15         | 1024 x 768 | 4/2                    | 2        | Yes                       | Yes            | Yes          |

\* Dashes in listed model numbers added to improve readability, and are not included in orderable part numbers.

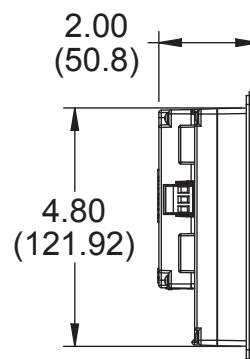
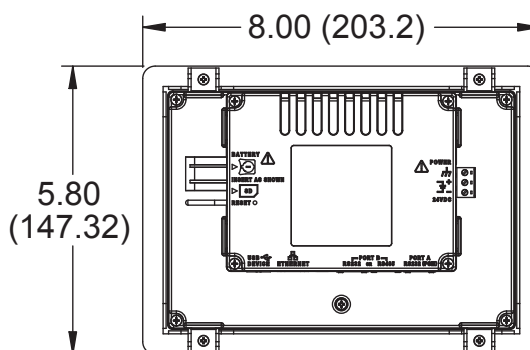
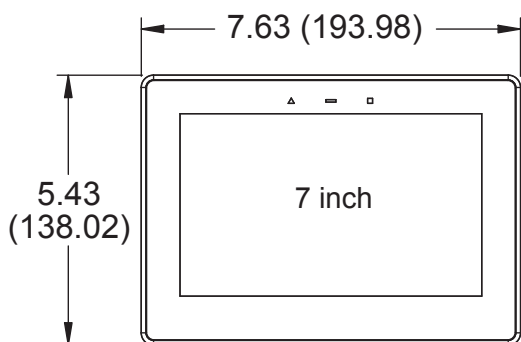
# ▶▶▶ CR1000 Dimensions in Inches (mm)

## 4.3" models



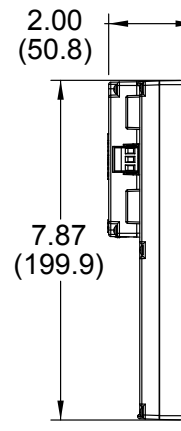
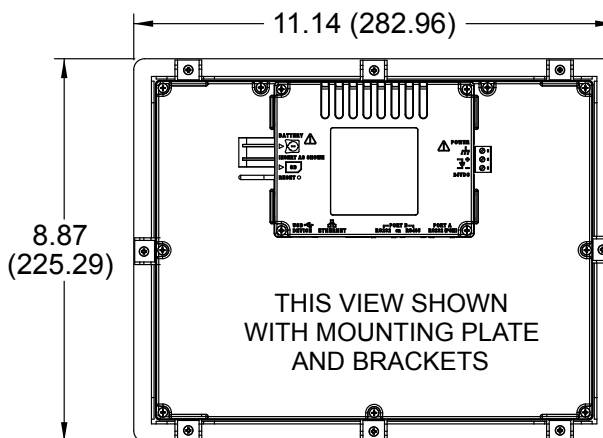
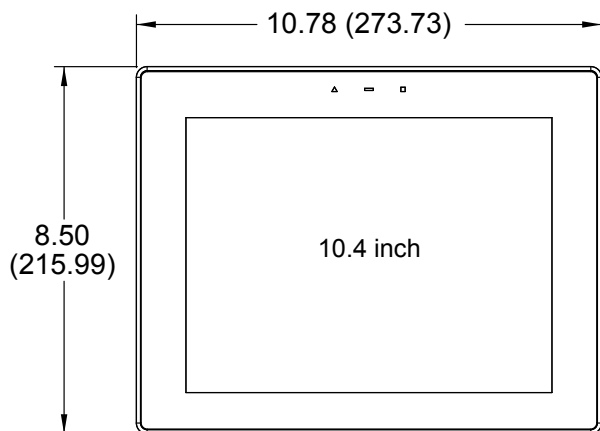
THIS VIEW SHOWN WITH MOUNTING PLATE AND BRACKETS

## 7" Models



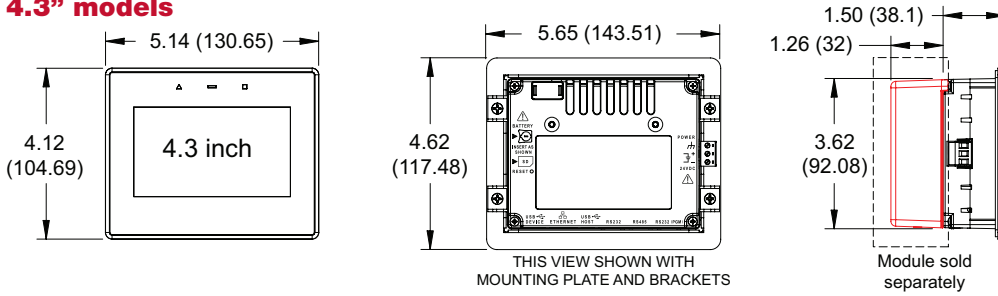
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## 10" Models

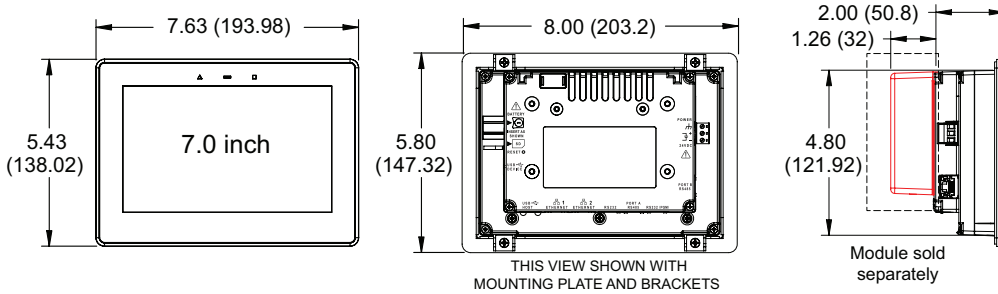


# ▶▶▶ CR3000 Dimensions in Inches (mm)

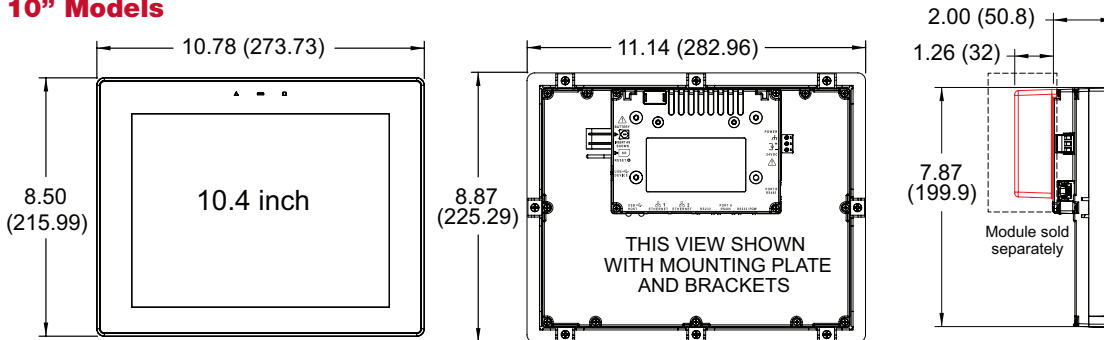
## 4.3" models



## 7" Models



## 10" Models



## 15" Models

