

# DA50D

## Advanced Protocol Converter with Modular Communication



### **FLEXEDGE™** Intelligent Edge Automation Platform

CLOUD, EDGE, WIRED, OR WIRELESS, DESIGN YOUR IDEAL INDUSTRY 4.0 OR IIOT APPLICATION WITH EASE.

Connecting to virtually any industrial device, the modularity of the DA50D makes designing in a rapidly changing environment as easy as replacing a field installable communication sled. Additionally, the LED status ring makes early awareness and diagnosis simple and straightforward.

Configured using Red Lion's award-winning Crimson® software, benefit from native support for over 300 industrial drivers, out-of-box OPC UA client and server capability, and simple point-and-click configuration of MQTT connectors for some of the industry's most popular IIoT platforms.

#### **APPLICATIONS**

- ▲ Factory Automation
- ▲ Oil & Gas
- ▲ Power & Utilities
- ▲ Water/Wastewater
- ▲ Transportation
- ▲ Industrial Internet of Things (IIoT)

#### **PRODUCT HIGHLIGHTS**

- ▲ Modular Architecture Allows for Easy Addition of Communication Capabilities
- ▲ Supports up to 10 Simultaneous Protocol Conversions between Over 300 Industrial Drivers
- ▲ Advanced Web Server with JavaScript, Bootstrap, CSS and HTML5 Support Delivers Operations Visibility Anywhere
- ▲ Real-Time Data Logging to MicroSD Card or via FTP
- ▲ Industrial Construction for Reliable Operation
- ▲ Intuitive LED Status Ring

#### **FEATURES & BENEFITS**

##### **QUICKLY ADD FUNCTIONALITY**

- ▲ Choose from Serial Ports, Cellular Communication, USB, or Wi-Fi Client Functionality

##### **POWERFUL INTEGRATION CAPABILITIES**

- ▲ Communicate with Over 300 Industrial Protocols Using Crimson®
- ▲ Easily Connect to IIoT Platforms with Point-and-Click Simplicity
- ▲ Embedded OPC UA Server and Client Enables Seamless Communication
- ▲ On-board Ethernet, Serial, and USB Ports Make Communication Simple

##### **DESIGNED FOR INDUSTRIAL ENVIRONMENTS, CERTIFIED FOR EASE OF MIND**

- ▲ -40 to 75 °C Operating Temperature
- ▲ UL Class 1, Division 2 and ATEX/IECEx Certifications

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## POWER INPUT

Input Voltage: 12-24 VDC +/-15%

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

INPUT VOLTAGE	12 V	24 V
Typ. Power DA50D Converter Only	2.5 W	2.6 W
Max Power DA50D Converter Only	3.0 W	3.1 W
Max Power DA50D Converter, with Sled	5.6 W	5.7W

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 only

## COMMUNICATION PROPERTIES

Ethernet Interface:

Two (2) 10/100 BASE-T(X) RJ45 ports (1500 Vrms Network Isolation)

Serial Interface: Two Serial Ports with Individual Port Isolation

One (1) RS-232 Serial RJ12 115200 Bps

One (1) RS-485/RS-422 Serial RJ45 115200 Bps

USB Device Port:

One (1) Isolated USB Type B Port Complies with USB Specification 2.0 (Full Speed)

## MEMORY

Removable Media:

MicroSD Slot Accepts Class 5 Or Better Card Up to 256 GB capacity.

Industrial Grade MicroSD Card Suggested

On-Board User Memory:

1 GB of Non-volatile Flash Memory

## CERTIFICATIONS & COMPLIANCES

CE Approved

EN 61326-1 Immunity to Industrial Locations

Emission CISPR 11 Class A

IEC/EN 61010-1

RoHS Compliant

ATEX Approved

II 3 G Ex ec IIC T4 Gc

DEMKO 20 ATEX 2268X

IECEx Approved

IECEx UL 20.0007X

UL Listed: File #E317425

Rugged IP30 enclosure

## ENVIRONMENTAL

Operating Temperature Range: -40 to 75 °C

Storage Temperature Range: -40 to 85 °C

Vibration to IEC 60068-2-6: Operational 5-500 Hz, 2 g

Shock to IEC 60068-2-27: Operational 15 g

Operating and Storage Humidity: 0 to 85% max. RH noncondensing

Altitude: Up to 2000 meters

Installation Category II, pollution degree 2 as defined in IEC/EN 60664-1

## MECHANICAL

Polycarbonate

Case Dimensions:

Height: 6.86" (17.4 cm)

Width: 2.03" (5.2 cm)

Depth: 5.11" (13.0 cm)

Weight: 13 oz (404.3 g)

Mounting: DIN Rail

Battery: Lithium Coin Cell

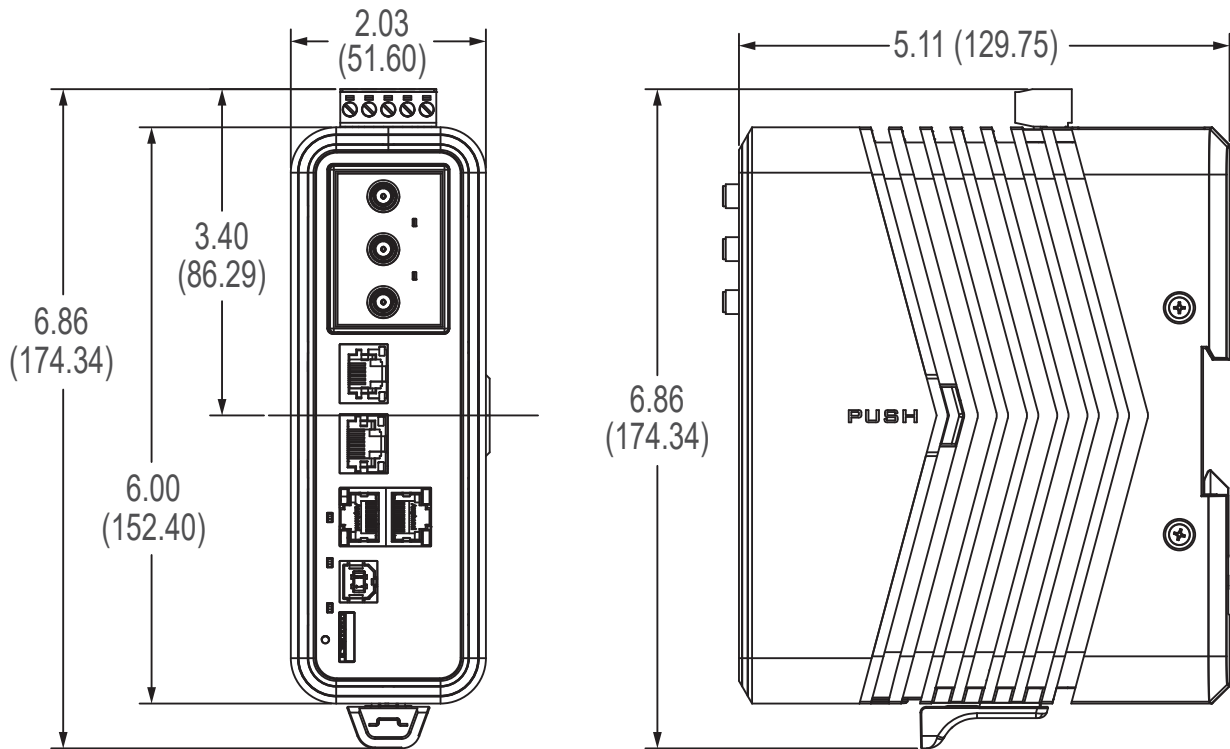
## WARRANTY

3 years on design and manufacturing defects

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

# ▲ DA50D Advanced Protocol Converter with Modular Communication

DIMENSIONS In inches (mm)



## ORDERING GUIDE

Type	Part Number	Description
Controller	DA50D-0B-NN0000-000	Advanced Protocol Converter with Modular Communication
Sled	DA-S00-CL9C4S-AM-000	4G LTE (Cat. 4) Cellular Sled for North America (AT&T, Other)
Sled	DA-S00-CL9C4S-VZ-000	4G LTE (Cat. 4) Cellular Sled for North America (Verizon)
Sled	DA-S00-CL9C4S-EU-000	4G LTE (Cat. 4) Cellular Sled for EU, SE Asia, and Asia Pacific
Sled	DA-S00-WF10N0-AM-000	802.11 b/g/n Wi-Fi Sled
Sled	DA-S00-PN40U4-00-000	Single USB 2.0 Host Port Sled
Sled	DA-S00-PN2221-IS-000	Dual Isolated RS-232 Ports Sled
Sled	DA-S00-PN2442-IS-000	Dual Isolated RS-485 Ports Sled
Sled	DA-S00-PN2245-IS-000	Mixed Isolated RS-232/RS-485 Ports Sled

▲ personal notes:



**EXCELLENCE. REDEFINED.**

As a global expert in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit [www.redlion.net](http://www.redlion.net).

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