DA70D

Intelligent Edge Controller with Scalable I/O

RL RED LION™
a spectris company

◢ FLEXEDGE™ Intelligent Edge Automation Platform

RED LION'S DA70D IS AN ALL-IN-ONE INDUSTRIAL DATA ACQUISITION AND EDGE PROCESSING GATEWAY THAT SIMPLIFIES THE MONITORING AND MANAGEMENT OF CONNECTED ASSETS AND PROCESSES.

Accelerate IIoT, Connected Factory, and Industry 4.0 initiatives by easily connecting industrial assets to a SCADA, DCS, or cloud platform with point-and-click simplicity. The modular design of the DA70D allows for up to three communications sleds to be added as requirements change or new communication standards emerge. Rugged, field-installable PID control and I/O modules ensure a solution that adapts to meet almost any industrial application need, while the intuitive LED status ring makes diagnosing issues simple and straightforward.

APPLICATIONS

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

PRODUCT HIGHLIGHTS

- ◢ Simultaneous Protocol Conversion Connects Virtually Anything, Anywhere
- ◢ Advanced Web Server with Javascript, Bootstrap, CSS and HMTL5 Support Delivers Operations Visibility Anywhere
- ◢ Real-time Data, Event and Security Logging to MicroSD Card or Via FTP with Cryptographic Signature Support
- ◢ Industrial Construction for Reliable Operation
- ◢ Wide Operating Temperature Range
- ◢ UL Class 1, Division 2 and ATEX/IECEx Certifications

FEATURES & BENEFITS

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

FUTURE PROOF ARCHITECTURE

- ◢ Add Up to Three Communications Sleds, Easily Responding as Requirements Change
  - Choices Include Serial, Cellular, USB and Wi-Fi Client Functionality
- ◢ Choose from a Variety of Field-installable Modules That Adapt the Platform to Application Needs
  - Options Include PID Control, Analog I/O, Universal Inputs and Digital I/O with SSR or Relay Output
  - Modules Feature LED Indicators for At-a-Glance Module Health

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 DA70D Controller only	4 W	4.5 W
Max Power DA70D Controller only	4.5 W	5 W
Available Power for Modules (Maximum of 10 modules)	43 W	45 W
Max Power DA70D Controller, with Sleds & USB	16 W	17 W
Max Power DA70D Controller with full accessories	59 W	62 W

Wire Strip Length: 0.3" (7.5 mm)
Wire Gauge Capacity: 12 to 24 AWG (3.31 to 0.20 mm²) copper wire only

COMMUNICATION PROPERTIES

Ethernet Interface: 1500 Vrms network isolation
    Two (2) 10/100 BASE-T(X) port (RJ45)
Serial Interface: Three (3) serial ports with individual port isolation available in the two configurations.
USB Host Port: One (1) USB Type A complies with USB specification 2.0 supports full-speed data transfers
Hardware overcurrent protected (0.5 A max per port)
USB Device Port: One (1) USB Type B complies with USB specification 2.0 (high speed, 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 non-condensing
Altitude: Up to 2000 meters
Installation Category II, Pollution degree 2 as defined in IEC/EN 60664-1

MECHANICAL

Cast aluminum & polycarbonate
Case Dimensions:
    Height: 6.84" (17.38 cm)
    Width: 3.20" (8.12 cm)
    Depth: 5.17" (13.13 cm)
    Weight: 2.15 lbs (978.05 g)
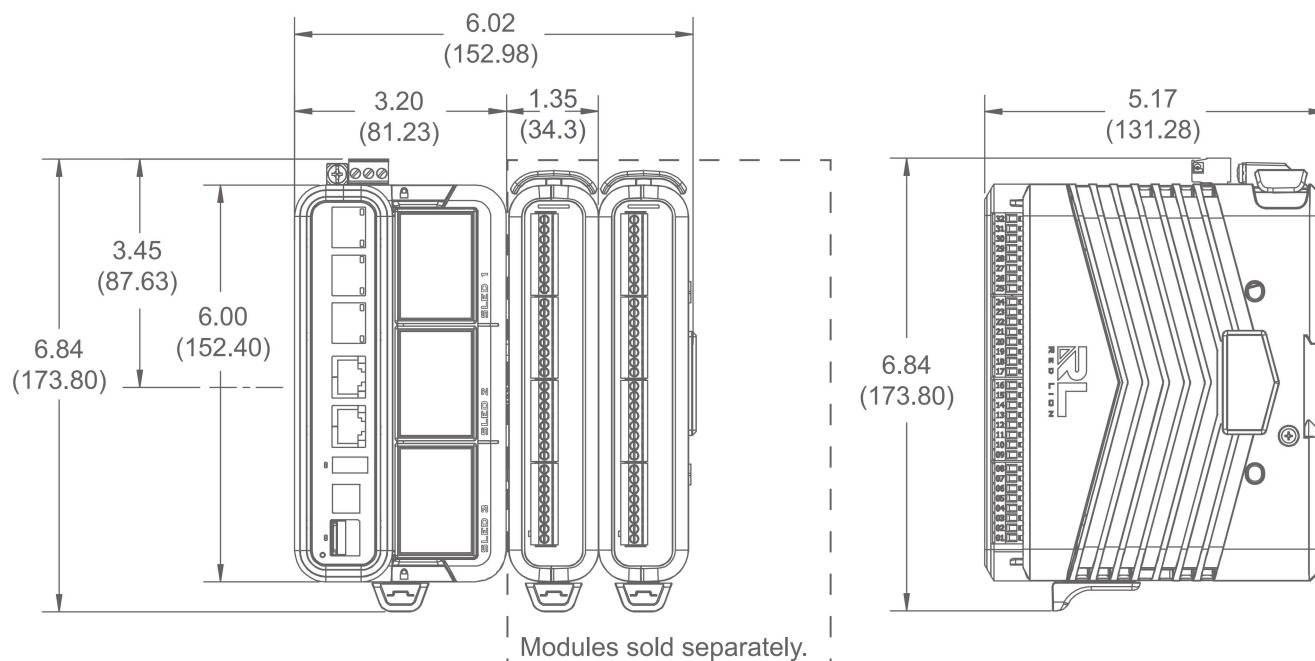Mounting: DIN Rail
Battery: Lithium Coin Cell

WARRANTY

3 years on design and manufacturing defects
Specifications are subject to change. Visit www.redlion.net for more information

DIMENSIONS In inches (mm)

6.02 (152.98)

3.20 (81.23)

1.35 (34.3)

5.17 (131.28)

3.45 (87.63)

6.00 (152.40)

6.84 (173.80)

6.84 (173.80)

SLED 1

SLED 2

SLED 3

Modules sold separately.

ORDERING GUIDE

Type	Part Number	Description
Controller	DA70D-0F-NNNNNN-000	Intelligent Edge Controller: 2 x RS-232, 1 x RS-485
Controller	DA70D-0G-NNNNNN-000	Intelligent Edge Controller: 1 x RS-232, 2 x RS-485
Sled	DA-S00-CL9C4S-AM-000	4G LTE (Cat. 4) Cellular Sled for North America (AT&T, Others)
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
Module	DA-M00-I0UIN6-I0-000	6 Isolated Universal Analog Inputs
Module	DA-M00-I00UT8-I0-000	8 Analog Outputs
Module	DA-M00-I0DI0R-00-000	8 Digital Inputs, 8 Digital Relay Outputs
Module	DA-M00-IO-DI00-00-000	8 Digital Inputs, 8 Digital Outputs

*Dashes in listed model numbers added to improve readability, and are not included in orderable part numbers
See software manual for details on sled operation

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As global experts 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.

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