FLEXEDGE® DA50A 1-Sled Scalable IIoT Gateway

RED LION
a spectris company

FLEXEDGE® Intelligent Edge Automation Platform

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

- Modular architecture allows for easy addition of communication capabilities including cellular, Wi-Fi, serial and USB
- Advanced networking support offers routing, NAT, firewall, and VPN support to ensure data security
- On-board I/O with configurable AI/DI and DO to monitor and control local sensors
- Field upgradeable software to enhance capability of gateway if application changes
- Supports up to 10 simultaneous protocol conversions between over 300 industrial drivers (optional)
- Real-time data logging to microSD card or via FTP (optional)
- Industrial construction for reliable operation
- Intuitive LED status ring
- HDMI™-enabled option (Group 3/4 only)

UK CA CE Ex c UL us LISTED IND.CONT. EQ. E317425 HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

Ordering Guide

MAIN UNIT

PART NUMBER	DESCRIPTION	SW GROUP
DA50A0BNN0000010	FlexEdge 1-Sled Mixed Serial Networking Gateway	Group 1
DA50A0BNN0000020	FlexEdge 1-Sled Mixed Serial Protocol Gateway	Group 2
DA50A0BNN0000030	FlexEdge 1-Sled Mixed Serial Adv IIoT Gateway	Group 3
DA50A1BNN0000030	FlexEdge 1-Sled Mixed Serial Adv IIoT Gateway w/HDMI	Group 3
DA50A0BNN0000040	FlexEdge 1-Sled Mixed Serial Adv Automation Controller	Group 4
DA50A1BNN0000040	FlexEdge 1-Sled Mixed Serial Adv Automation Controller w/HDMI	Group 4

ACCESSORIES

PART NUMBER	DESCRIPTION
DAS00CL9C1SAZ000	4G LTE (CAT1) Cellular Sled for AUS (Telstra)
DAS00CL9C4SAM000	4G LTE (CAT4) Cellular Sled for AMER (AT&T, Generic)
DAS00CL9C4SEU000	4G LTE (CAT4) Cellular Sled for EMEA, SAARC, APAC
DAS00CL9C4SVZ000	4G LTE (CAT4) Cellular Sled for AMER (Verizon)
DAS00PN1EE200000	Dual Ethernet Sled
DAS00PN2221IS000	Dual RS232 Ports Sled (Isolated)
DAS00PN2442IS000	Dual RS485 Ports Sled (Isolated)
DAS00PN2245IS000	Mixed RS232/RS485 Ports Sled (Isolated)
DAS00PN40U400000	1 Port USB 2.0 Host Sled
DAS00PN8CA6IS000	DA Series, CAN Protocol Interface Sled
DAS00PN8J16IS000	DA Series, J1939 Protocol Interface Sled
DAS00WF10N0AM000	802.11n Wi-Fi Sled

See software manual for details on sled operation.

\ DA50A Ordering Guide Cont. and Specifications

SOFTWARE GROUPS

	GROUP 1 NETWORKING	GROUP 2 PROTOCOL	GROUP 3 ADV IIOT	GROUP 4 CONTROLLER
CONFIGURATION				
Web GUI	Y	Y	Y	Y
Crimson®	Y	Y	Y	Y
NETWORKING				
Firewall	Y	Y	Y	Y
RADIUS Auth.	Y	Y	Y	Y
Routing	Y	Y	Y	Y
NAT	Y	Y	Y	Y
IP Fallback	Y	Y	Y	Y
VPN Client/Server	Y	Y	Y	Y
AUTOMATION				
300+ Drivers		Y	Y	Y
IIoT Connectors		Y	Y	Y
OPC UA		Y	Y	Y
SQL Sync			Y	Y
Data Logging			Y	Y
Virtual HMI			Y	Y
Advanced Web Server			Y	Y
IEC CONTROL				
Crimson Control				Y

\ Specifications

Power Requirements

Supply Voltage: 12-24 VDC +/-15%, Class 2 source

INPUT VOLTAGE	12 V	24 V
Typ. Power DA50A Gateway Only	2.5 W	2.6 W
Max Power DA50A Gateway Only	3.0 W	3.1 W
Max Power DA50A Gateway, with Sled	5.6 W	5.7 W

Battery

3 V Lithium coin cell.

Memory

On Board User Memory: 1 GB of non-volatile Flash memory.
Memory Card: microSD slot accepts Class 5 or better microSD cards up to 256 GB capacity. FAT32, industrial grade.

Communication Properties

USB Device Port: One (1) Isolated USB Type B Port Complies with USB Specification 2.0 (Full Speed)
Ethernet Ports: Two (2) 10BaseT/ 100BaseTX RJ45 ports (1500 Vrms Network Isolation)
Serial Ports: Two Serial Ports with Individual Port Isolation
One (1) RS232 Serial RJ12 115200 Bps
One (1) RS485/RS422 Serial RJ45 115200 Bps
HDMI Port: HDMI ™ Connector. Supports 1080p@24 Hz as specified in HDMI 1.4

Digital Output (DOUT)

Configuration: Open Collector, reference to ground
Absolute Maximum IDC: 500 mADC (Vce = 750 mVDC)
Absolute Maximum VDC: 30 VDC (open circuit)
Absolute Minimum VDC: -0.4 VDC (open circuit)

Digital Input (DIN)

Configuration: Unisolated level detection, reference to ground
Active level: 2.5 VDC to 30 VDC
Inactive level: 0 VDC to 1.3 VDC
Absolute Minimum VDC: -0.3 VDC
Absolute Maximum VDC: 33 VDC
Leakage IDC at 5 VDC: 150 µADC

\ DA50A Specifications Cont.

Analog Input (Shared with Digital Input)
Configuration: Unisolated input, reference to ground
Resolution: 4096 (ADC 12-bit)
VDC per step: 9.483 mVDC (full scale level: 38.8 V)
Accuracy: 2%
Zero level: 0 VDC
Absolute Minimum VDC: -0.3 VDC
Absolute Maximum VDC: 33 VDC
Leakage IDC at 5 VDC: 265.96 µADC typical

Networking Capabilities
Tunneling: IPsec, GRE and Open VPN
IP: NAT, port forwarding, dynamic DNS, DHCP Stateful inspection firewall, IP Fallback and IP transparency
Routing Protocols: VRRP Encapsulation Protocols

Environmental
Without HDMI:
Operating Temperature Range: -40 to 75 °C T_{AMB}
Storage Temperature Range: -40 to 85 °C T_{AMB}
With HDMI Video:
Operating Temperature Range: -20 to 75 °C T_{AMB}
Storage Temperature Range: -20 to 85 °C T_{AMB}
Operating and Storage Humidity: 0 to 85% max. RH non-condensing
Vibration to IEC 60068-2-6: Operational 5-500 Hz, 2 g
Shock to IEC 60068-2-27: Operational 15 g
Altitude: Up to 2000 meters
Installation Category II, Pollution Degree 2 as defined in IEC/EN 60664-1.

Certification & Compliance
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
UKEX Approved
UL22UKEX2576X
UL Hazardous: File # E317425
Rugged IP30 enclosure

Connections
Wire Strip Length: 0.3" (7.5 mm)
Wire Gauge Capacity: 12 to 24 AWG (3.31 to 0.20 mm^2) copper wire only

Construction
Polycarbonate enclosure with IP30 rating.
Weight:
Without HDMI Port: 13 oz (404.3 g)
With HDMI Port: 14.74 oz (417.87 g)

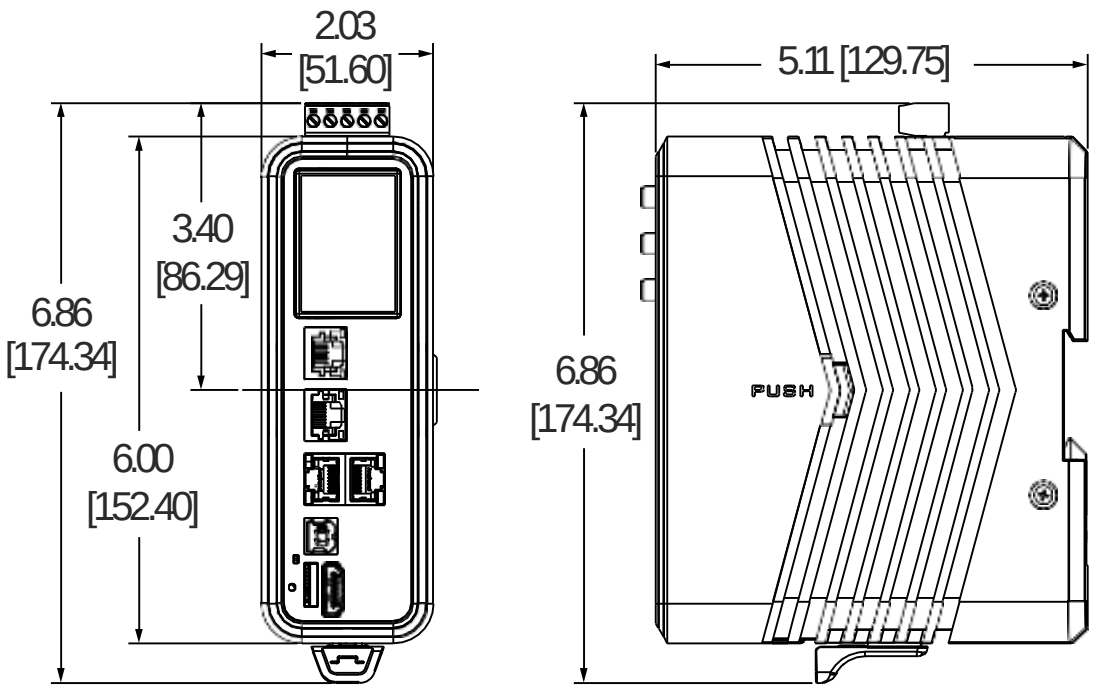
Mounting
DIN Rail: Attaches to standard "T" profile DIN rail according to EN50022 - 35 x 7.5 and 35 x 15

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

Trademark Acknowledgments

\ DA50A Dimensions

\ Dimensions In inches [mm]



Graphite® Edge Controller

Red Lion Automation Series

▶▶▶ Rugged Standalone Industrial Controller

The Graphite® Edge Controller is a rugged all-in-one industrial solution that reduces cost and complexity by combining IEC 61131 control capabilities with networking and data visualization.

Integrating communication and control into factory automation and process control applications has never been easier. With all-metal construction, a built-in web server, data logging with SD card, and Red Lion's Crimson® 3.0 software with Crimson Control functionality, our rugged controller operates in the harshest environments to provide a single programming solution for control, networking and data visualization. Simply use industry-standard IEC 61131 programming languages such as ladder logic, function block, structured text and instruction list to develop logic code much like a programmable logic controller (PLC) or remote telemetry unit (RTU) without the added expense of additional software. In addition, select from a variety of I/O, PID control and communications modules to connect, monitor and control a wide array of field devices – regardless of location – to meet specific application requirements.

INDUSTRY APPLICATIONS

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

PRODUCT HIGHLIGHTS

> Industry-Standard Control Language Support
> Protocol Conversion of over 300 Drivers
> Support up to 13 Simultaneous Protocol Conversions
> Web Server for Data Visualization
> Real-Time Data Logging to SD Card or via FTP
> Rugged Construction for Extreme Protection
> Wide Operating Temperature Range
> Scalable Modules & Expansion Options

FEATURES & BENEFITS

> Powerful Crimson 3.0 Software with Crimson Control
- Intuitive drag-and-drop graphical software for easy setup
- Use industry-standard IEC 61131 programming languages such as ladder logic, function block, structured text and instruction list
- No special gateways or added fees for protocol conversion
- Easy single-solution configuration eliminates need for third-party software

> Versatile I/O Module & Expansion Options
- Support small scale applications using on-board module slot for functions including PID control, digital or analog I/O or specialized communications
- Connect Graphite Expansion Racks to easily scale for larger application or additional I/O
- Extend even further with E3 I/O™ high-density modules

> Industry-Leading Protocol Conversion
- Communicate with over 300 major industrial protocols
- Support up to 13 simultaneous protocol conversions
- Convert between serial, USB and Ethernet devices
- Manage multi-vendor environments with ease

> Rugged Environmental Specifications
- Wide -40° to 70°C operating temperature
- High shock and vibration tolerance
- CE, UL/cUL and UL/cUL Hazardous approvals

> Powerful Integration Functionality
- Ethernet, USB and serial ports make communication simple
- Built-in data logging enhances troubleshooting and helps meet regulatory requirements
- Robust web server provides remote visualization, access and control to reduce costly site visits

industrial automation

CE c UL us LISTED RoHS compliant

▶▶▶ Graphite Edge Controller Specifications

POWER INPUT

Input Voltage: 10-30 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.

	GRAC0001 Power Ratings (Watts)			
Input Voltage	10 V	12 V	24 V	30 V
Typical Power (GRAC0001 only)	4 W	4 W	5 W	5 W
Maximum Power (GRAC0001 only)	9 W	9 W	10 W	10 W
Available Power for Modules	55 W			
Max Power GRAC0001 With Module(s)	64 W	64 W	65 W	65 W

CONNECTORS

USB Port: One (1) USB Type B complies with USB specification 2.0 (high speed, full speed)

USB Host Ports: Two (2) USB Type A complies with USB specification 2.0 Supports full-speed data transfers

Hardware over current protected (0.5 A max per port)

Serial Ports: Format/Baud rates independently configurable

Programming Port:

One (1) RS-232 port with RJ12 connector

Communication Ports:

Two (2) RS-422/485 port via RJ45 connector

Ethernet Ports: 1500 Vrms network isolation

Two (2) 10/100Base-T(X) port via RJ45 connector

Power: High compression cage-clamp terminal block

Wire Strip Length: 0.3" (7.5 mm)

Wire Gauge Capacity: One 14 AWG (1.63 mm) solid, two 18 AWG (1.02 mm) or four 20 AWG (0.81 mm)

ENVIRONMENTAL

Operating Temperature: -40°C to 70°C*

Storage Temperature: -40°C to 85°C

Operating Humidity: 0% to 85% max. RH non-condensing

Altitude: Up to 2000 meters

Panel Mount Vibration to IEC 68-2-6: Operational 5-500 Hz, 4 g

Panel Mount Shock to IEC 68-2-27: Operational 40 g (10 g, modules w/ relays)

DIN Rail Mount Vibration to IEC 68-2-6: Operational 5-500 Hz, 2 g

DIN Rail Mount Shock to IEC 68-2-27: Operational 15 g (10 g, modules w/relays)

Requires DIN Rail type: DIN 1010, DIN 1065, or DIN 3065

CERTIFICATIONS AND COMPLIANCES

Product Safety:

EN 61326-1 Immunity to Industrial Locations

Emission CISPR 11 Class A

IEC/EN 61010-1

cULus Listed: File #E302106

cULus Hazardous: File #E317425

Other:

RoHS Compliant

MECHANICAL

Cast aluminum. Installation Category II, Pollution Degree 2 as defined in IEC 60664-1

Case Dimensions:

Height: 6.35" (16.2 cm)

Width: 4.11" (10.5 cm)

Depth: 4.40" (11.2 cm)

Weight: 2.3 lbs (1.03 kg)

Mounting: Panel mount or DIN rail

ORDERING GUIDE

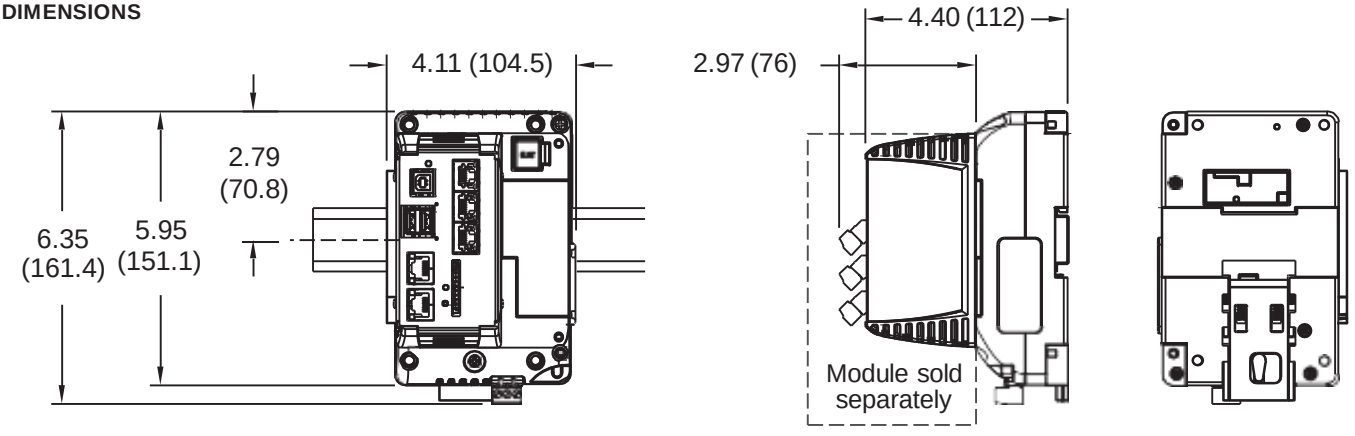
MODEL NUMBER	DESCRIPTION
GRAC0001	Graphite Edge Controller

Up to 4 Optional Expansion Racks (GEXRACK2) can be connected to the Edge Controller and up to 1 Wide Rack (GEXRACK1) and 3 Expansion Racks (GEXRACK2) can be tethered via USB.

* Lowest range among equipment used in your Graphite system; refer to user manual.

Specifications are subject to change. Visit www.redlion.net for more information.

DIMENSIONS



RED LION™
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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning 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. For more information, please visit www.redlion.net. Red Lion is a Spectris company.

E3 I/O™ Modules

Red Lion Automation Series

▶▶▶ Rugged High-Density I/O Modules

Red Lion's E3 I/O modules provide a robust and reliable platform for local and distributed monitoring and control of processes and equipment in harsh industrial environments.

The highly rugged E3 I/O modules feature discrete, analog and temperature I/O, dual Ethernet ports, an RS-485 serial port and one USB port. Configured via web interface or Red Lion's award winning Crimson® 3.0 software, E3 I/O modules are easy to setup and deploy. The high-density I/O modules compliment HMIs or can be used as standalone I/O concentrators in industries including oil & gas, water/wastewater, utilities, transportation, mining and maritime. Red Lion's DIN-rail mountable modules support open-standard protocols simplifying integration into existing or newly installed networks. Replacing external devices such as switches, data concentrators and protocol converters, E3 I/O modules cost-effectively streamline systems and improve reliability.

APPLICATIONS

> Mining
> Oil & Gas
> Power & Energy
> Transportation
> Water/Wastewater

PRODUCT HIGHLIGHTS

> Configurable via Crimson 3.0 or Web Interface
> Wide Variety of Mixed I/O Configurations
> Industrial Design Supporting Deployment in Extreme Environments
> Real-Time Ring and Dual-Ethernet Ports for Powerful Network Redundancy
> Built-in Security Proactively Blocks Unwanted Access

FEATURES & BENEFITS

> Wide Variety of I/O Configurations
  - 17 models with various discrete, analog and temperature I/O
> Powerful Networking Capabilities
  - Built-in two port Ethernet switch for daisy chaining, redundancy, or pass-through
  - Modbus protocol support for industrial monitoring and communications
> Built-in Security for Proactively Blocking Unwanted Access
> RS-485 Port for Connecting Serial Devices to Ethernet Network
> Industrial Design Supporting Deployment in Extreme Environments
  - Hardened metal enclosure with both DIN-rail and panel mount options
  - Wide -40° to 75°C operating temperature range
  - UL/cUL Class 1, Division 2 Listed
> Configured via Crimson software for easy point-and-click configuration or through built-in web interface

industrial automation

RoHS compliant

▶▶▶ E3 I/O Module Specifications

SWITCH PROPERTIES
Operation: Monitored
IEEE Compliance: 802.3, 802.3u, 802.3ab, 802.3x
802.1d/D/w, 802.1p, 802.1Q, 802.1x
Protocols: TCP/IP, ARP, UDP, ICMP, DHCP, HTTP, Modbus TCP,
Modbus UDP (slave or master), Sixnet TCP, Sixnet UDP
(slave or master)
Latency (typical): 5 us @100 Mbps
Switching Method: Store-and-Forward
Networks: 1 or 2 independent with unique MAC and IP addresses
Real-Time Ring: 30 ms + 5ms per hop
MDIX Auto Sensing Cable
Auto Sensing Speed and Flow Control

POWER INPUT*
Input Voltage: 10-30 VDC (12-24 Nominal)
Steady Input Current:
Maximum: 355mA @24VDC no loads
Average: 190mA @24VDC no loads
Minimum: 150mA @24VDC no loads
Max Inrush: 5 A /100 us @24 VDC
BTU/HR: 8 (typical)

CONNECTORS
Ethernet Ports: Two (2) 10/100Base-T(X) RJ45 ports
Serial Port: One (1) RS-485 screw block (485+, 485-, GND;
2-wire half-duplex, non-isolated)
RS-485 Networking: Up to 32 (full load) stations
RS-485 Distance: Up to 0.5 miles (baud-rate dependent)
Baud Rates: 300 to 57,600 baud
Protocols: Master and slave; Sixnet and Modbus RTU/ASCII

NETWORK MEDIA
10Base-T: ≥ Cat3 cable
100Base-T(X): ≥ Cat5 cable

DISCRETE INPUTS*
Voltage Range: 10-30 VDC or 60-140 VAC
Input Resolution: 150 volts (16 channel modules only)
Input Resistance: 10 Kohms
Slow Response: 25 ms (20 Hz max count rate)
Fast Response: 1 ms (400 Hz max count rate)
Special Fast Counting: Up to 50 KHz (channel 1 & 2)
Count Up: Pulse timing and pulse rate 16 or 32-bit reporting

DISCRETE OUTPUTS*
Output Voltage Range: 10-30 VDC or VDC/AC
Maximum Output Power: Up to .6 A per channel
Short Circuit Protection: Self-reset fuses
Input Isolation: 150 V (16 channel modules only)
Channel Scan Rate: 1 ms

ANALOG INPUTS*
Input Range: 4-20 mA, 0-10 VDC, RTD, thermocouple and 250 mV
Analog/Discrete Resolution: 16 bits (0.003%); 10 bits (1 ms fast option)
Input Impedance (Resistance): 100 ohms or 200 Kohms
Fuses: Self-resetting short circuit protection (4-20 mA inputs)
DMRR (Differential Mode): 66 db at 50/60 Hz
Update Time: 880 ms to 1 ms (configurable)
Temperature Accuracy: +/-0.5°C uncalibrated (typical)
RTD Type: 100 Ohm platinum
RTD Alpha: 0.00385 or 0.00392
RTD Connections: 2 or 3-wire
RTD Input Range: -200° to 850°C

ANALOG OUTPUTS*
Analog Output Range: 4-20 mA
Analog/Discrete Resolution: 16 bits (less than 1 uA)
Full Scale Accuracy: +/-0.02% (@20°C)
Span and Offset Temperature: +/- 50 ppm per °C
Load Resistance: 0-750 Ohms @24 VDC
Current Limiting Short Circuit Protection

RECOMMENDED WIRING CLEARANCE
Front: 2" (5.08 cm)
Top: 1" (2.54 cm)

ENVIRONMENTAL
Operating Temperature Range: -40° to +75°C
Storage Temperature: -40° to 85°C
Operating Humidity: 10% to 95% (Non Condensing)
Shock: IEC60068-2-6
Vibration: IEC60068-2-27

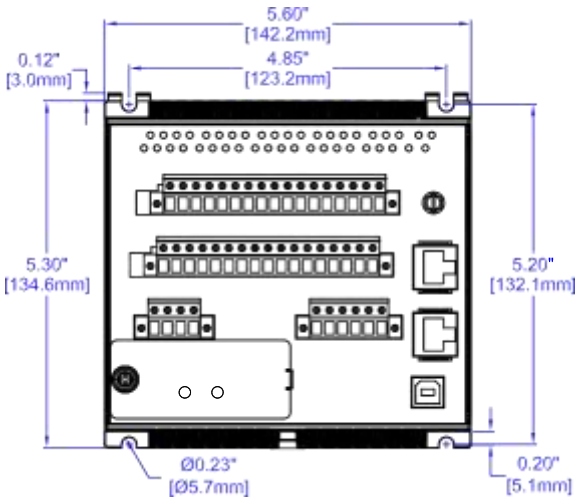
CERTIFICATION & COMPLIANCE
Hazardous Locations: ANSI/ISA 12.12.01-2013 Edition (Class I, Div. 2,
Groups A, B, C, and D), CSA C22.2/213;
Marine/Offshore: Rated per ABS, DNV and Lloyds
Electrical Safety: UL 508, CSA C22.2/142, EN/IEC61010-1, CE
EMI Emissions: FCC part 15, ICES-003, Class A,
EN-55022; EN6100-6-4, CE
EMC Immunity: EN61000-6-2, CE (EN61000-4-2,3,4,5,6,8); CE
Flammability: UL 94V-0 materials

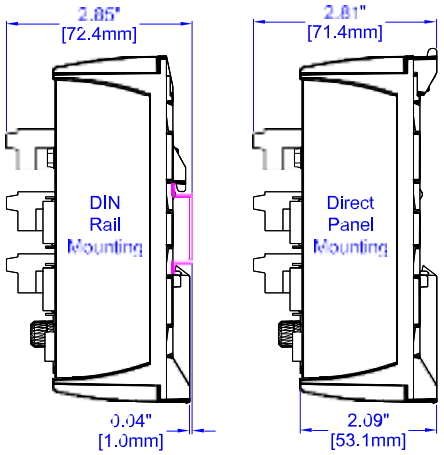
MECHANICAL
Case Dimensions:
Height: 5.30" (134.6 mm)
Width: 5.60" (142.2 mm)
Depth: 2.85" (72.4 mm)
Weight: 2.5 lb.s (1.3 kg)
Mount: DIN Rail 35 mm
MTBF: >1M Hours**

WARRANTY
3 years on design and manufacturing defects

* See manual for model specific specifications
** Note: See Hardware Manual for model specific MTBF ratings.

DIMENSIONS *in inches (mm)*





SixTrak IPm®
Industrial RTU

RED LION
a spectris company

High–Performance Industrial RTU

THE SIXTRAK ST–IPM–8460 INDUSTRIAL RTU PROVIDES POWERFUL CONTROL FOR MANY AUTOMATION APPLICATIONS. WITH MANY SERIAL AND ETHERNET PORTS, THE ST–IPM–8460 RELIABLY CONTROLS PROCESSES IN HARSH ENVIRONMENTS.

No matter what the application, the ST-IPm-8460 can be easily configured to meet your needs. Dual power inputs and support for redundant Ethernet networks help increase uptime while a multitude of communication ports and supported protocols enable connectivity to a variety of field devices.

In addition to featuring an open source Linux programming platform, users can customize applications using IEC 61131-3 languages including structured text, ladder diagram, function block diagram, instruction list and sequential function chart. Advanced debugging and workbench features include version control, XML project item import, project creation/validation scripting, template creation, project visualization and extended protocol support, all designed to easily support large, complex projects across multiple devices.

c UL us LISTED E317425 · CE · Ex · FC · RoHS

APPLICATIONS

- Energy
- Oil & Gas
- Processing Plants
- SCADA
- Utilities
- Water/Wastewater

PRODUCT HIGHLIGHTS

- Dual Ethernet Network Support
- Built-in Data Logging
- Local Monitoring with Built-in I/O
- Multiple Serial Ports for Application Versatility
- Wide Operating Temperature for Harsh, Remote Locations
- Native Support for Industrial Protocols, Including Ethernet TCP/IP, Modbus TCP/UDP and Sixnet UDR

FEATURES & BENEFITS

HIGHLY CONFIGURABLE

- Robust IEC 61131 Development Environment
- Open Linux Programming Platform
- Develop Application-specific Communication Drivers
- Choose from a Full Suite of I/O Modules to Adapt to Application Needs

DESIGNED TO OPTIMIZE UPTIME

- Redundant Network and Controller Support
- Dual 10 to 30 VDC Power Inputs
- Peer to Peer Linking

RUGGED AND RELIABLE

- -40 to 70 °C Operating Temperature
- UL Class I, Div. 2
- ATEX Certification

SixTRAK IPm Industrial RTU Specifications

PERFORMANCE SPECIFICATIONS
Processor: Industrial PPC (32-bit)
Dynamic Memory (RAM): 512 MB (478 MB available)
Program Memory (Flash): 512 MB (272 MB for application data and programs)
Data Logging Memory (RAM): 8 MB (battery backed)

SWITCH PROPERTIES
Operation: Unmanaged
Number of MAC Addresses: 2
IEEE Compliance: 802.3u, 802.3x
Protocols: TCP/IP, IGMP, DHCP, Modbus UDP/TCP
See the website for a complete list of protocols available.
Latency (typical): 10 Mbps: 16 µs, 100 Mbps: 5 µs
Switching Method: Store-and-Forward
Maximum Throughput: 90 Mbps (Network 2)
MDIX Auto Sensing Cable
Auto Sensing Speed and Flow Control
MTBF: >820,000 hours per MIL-HNDBK-217F2

POWER INPUT
Input Voltage: 10 to 30 VDC
Steady Input Current: 150 mA @ 24 V (6.2 W max.)
Inrush: 3.0 A / 60 µs @ 24 VDC
BTU/HR: 12.29

COMMUNICATION PROPERTIES
Ethernet Ports
- Independent Networks with Unique MAC & IP Addresses
- Network 1 Port: One (1) shielded 10/100Base-T(X) port (full duplex)
- Network 2 Ports: Five (5) shielded 10/100Base-T(X) ports

Serial Ports
- Supports speeds up to 115,200 baud
- RS-232 (Port A): RJ45 (TD, RD, CTS, RTS, CD, DTR, DSR, GND)
- RS-232 (Port B): RJ45 (TD, RD, CTS, RTS, CD, DTR, DSR, GND)
- RS-485 (Port C): Screw block (485+, 485-, GND) 2- wire half-duplex, isolated 1,500 Vrms
- RS-232 (Port D): Screw block (TD, RD, RTS, CTS, GND) isolated 1,500 Vrms

RECOMMENDED WIRING CLEARANCE
Front: 3" (7.62 cm)
Top: 2.5" (6.35 cm)

NETWORK MEDIA
10BaseT: ≥Cat3 cable
100BaseTX: ≥Cat5 cable

CERTIFICATION & COMPLIANCES
Hazardous Locations: ISA12.12.01, CSA C22.2/213, Class 1, Division 2 Groups A, B, C, D
ATEX: IEC 60079-0, IEC 60079-7, Zone 2
Marine/Offshore: Rated per ABS
Electrical Safety: UL 508, CSA C22.2/142, EN/IEC61010-1, CE
EMI Emissions: FCC part 15, ICES-003, Class A, EN61000-6-4, CE
EMC Immunity: EN61000-6-2, CE IEC61000-4-9, IEC61000-4-10, IEC61000-4-16
Flammability: UL 94V-0 materials

ENVIRONMENTAL
Operating Temperature Range: -40 to 70 °C
Storage Temperature Range: -40 to 85 °C
Operating and Storage Humidity: 10% to 95% (non-condensing)
Operating Altitude: Up to 2000 ft
Shock: IEC60068-2-6; Half Sine, 31 G, 11 msec duration; IEC 60870-2-2 Class Cm
Vibration: IEC60068-2-27; 9-200 Hz 2 G, 200-500 Hz 1.5 G; IEC 60870-2-2

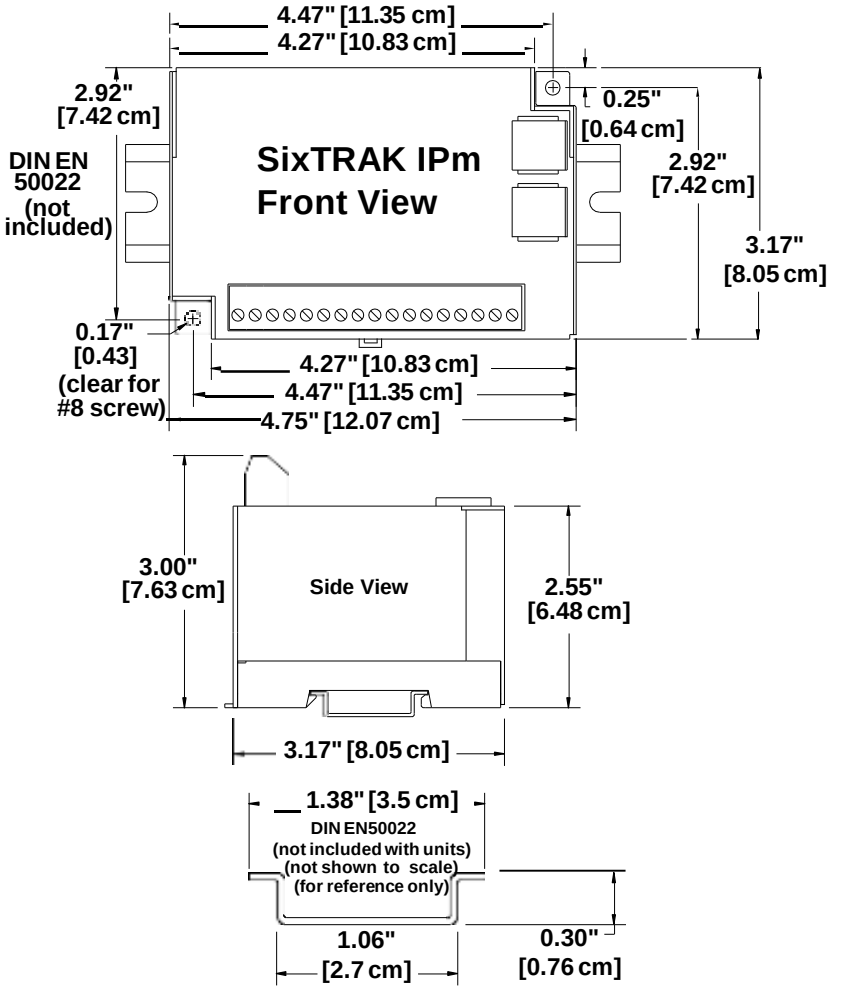
MOUNTING
Case Dimensions:
- Height: 3.17" (8.05 cm)
- Width: 4.75" 12.07 cm)
- Depth: 3.00" (7.62 cm)

Weight: 0.75 lbs (0.34 kg)
Mount: DIN rail 35 mm or flat panel mount

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

SixTRAK IPm Industrial RTU Dimensions

DIMENSIONS In inches (cm)



SixTRAK IPm Industrial RTU Ordering Guide

MAIN UNIT

PART NUMBER	DESCRIPTION
ST-IPM-8460	SixTRAK IPm Industrial RTU

ACCESSORIES

PART NUMBER	DESCRIPTION
E2-MIX20884-D	EtherTRAK-2 I/O Module-32 Mixed Inputs/Outputs
E2-MIX24880-D	EtherTRAK-2 I/O Module-32 Mixed Inputs/Outputs
E2-MIX24882-D	EtherTRAK-2 I/O Module-34 Mixed Inputs/Outputs
E2-32DI24-D	EtherTRAK-2 I/O Module-32 24V Digital Inputs
E2-16DI24-D	EtherTRAK-2 I/O Module-16 24V Digital Inputs
E2-16DIAC-D	EtherTRAK-2 I/O Module-16 120VAC Digital Inputs
E2-32DO24-D	EtherTRAK-2 I/O Module-32 24V Digital Outputs
E2-16DO24-D	EtherTRAK-2 I/O Module-16 24V Digital Outputs
E2-16DORLY-D	EtherTRAK-2 I/O Module-16 Digital Output Relays
E2-16ISO20M-D	EtherTRAK-2 I/O Module-16 4-20mA Isolated Analog Inputs
E2-32AI20M-D	EtherTRAK-2 I/O Module-32 20mA Analog Inputs
E2-32AI10V-D	EtherTRAK-2 I/O Module-32 10VDC Analog Inputs
E2-16AI20M-D	EtherTRAK-2 I/O Module-16 Analog Inputs (4-20mA)
E2-16AI-8AO-D	EtherTRAK-2 I/O Module-16 Analog Inputs/8 Analog Outputs
E2-8AO20M-D	EtherTRAK-2 I/O Module-8 Analog Outputs
E2-16ISOTC-D	EtherTRAK-2 I/O Module-16 Isolated Thermocouple Inputs
E2-10RTD-D	EtherTRAK-2 I/O Module-10 RTD Inputs

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