

## Panel Meters

Award-winning solutions  
from the number one  
brand in the industry



- > Wide range of models, sizes and capabilities
- > Display count, rate, time, voltage, current, process, strain gage and temperature
- > Field-upgradeable models
- > Superior technical support
- > Powerful, complimentary Crimson® software
- > Product customization available

## ▶▶▶ Red Lion panel meters. The most solutions. The #1 brand.

### Indication

Low cost, general purpose counters and timers with dedicated functionality and legendary Red Lion quality.



#### CUB®3

General purpose, miniature indicator with 6-digit, 0.2" LCD. Low 3 VDC operating power supplied via internal lithium battery. Reliable integrated circuitry, embedded in a single monolithic, silicon microchip. 1" X 2" snap-in mounting.



#### CUB7

Dedicated function 8-digit miniature displays with large 0.35" high backlit LCD. Low voltage and high voltage models. Standard wire connections or optional plug-in terminal blocks. Internal lithium battery. Remote reset; NEMA 4X/IP65.

### Control and Indication

Workhorse panel meters offering versatility and functionality with models available for measuring count, rate, time, voltage, current, temperature, process and strain gage.



#### CUB5

Flexible functionality in a miniature 38 mm x 75 mm package. Field-installable option cards for setpoint and communications. 9 to 28 VDC powered with backlit 0.46" high LCD; NEMA 4X/IP65.



#### PAX® Lite

1/8 DIN meters for dedicated applications. Simple field setup and easy programming. 0.56" LED display; NEMA 4X/IP65.

### Why do users prefer Red Lion meters?

Red Lion has more high quality solutions for your digital and analog panel meter requirements than any other supplier, with a wider range of models, sizes and capabilities—from our indicators to the versatile CUB5 and PAX process meters that let you add or change capabilities with plug-and-play, field-installable cards. Red Lion's free Crimson software offers flexibility, powerful capabilities and intuitive ease. Combine the widest selection with our unmatched quality, speed of delivery and world-class technical support, and you'll understand why, when the world thinks of panel meters, it thinks of Red Lion.

- > Widest range of products in the industry
- > Field-installable option cards
- > Easy-to-use Crimson software
- > Superior quality
- > Best delivery
- > Unmatched technical support
- > Leading Brand\*



\* For 14 consecutive years the readers of Control Design Magazine have voted Red Lion the number one panel meter manufacturer in the industry.

### Advanced Control and Indication

Includes all of the features of the Control and Indication products listed above, plus field-upgradeable option cards for advanced communications and output capabilities.



#### PAX

A versatile 1/8 DIN meter. Add up to 3 field-upgradeable option cards for dual and quad setpoint, retransmitted analog output, RS232, RS485, Modbus, Profibus and DeviceNet™ communications; dual count, dual rate, and dual process meters available; NEMA 4X/IP65.



#### PAX2

All the features of the PAX with a dual line display and increased update rates. The main display can be programmed for red, orange, or green; while the bottom display is green.

## LD

2.25" and 4" LED displays based on the popular CUB5. Single and dual preset models with RS232/RS485 communications; serial slave display version available; universal power supply; NEMA 4X/IP65.



## T48

1/16 DIN temperature PID loop controller with reduced overshoot. Auto-tuning of PID control settings, dual display of temperature and setpoint; accepts up to 10 types of thermocouple or RTD inputs; multiple setpoints; RS485 communications; NEMA 4X/IP65.

## C48

1/16 DIN dual line display for counting or timing. Multiple setpoints; RS485 communications; NEMA 4X/IP65.



## PXU

1/16, 1/8 and 1/4 DIN size models, the PXU accepts process, thermocouple and RTD signals and presents values on one of the industry's largest dual displays. Available options include DC analog control, RS-485 communication and user inputs.

## LPAX & EPAX

1.5" (LPAX) and 4" (EPAX) displays based on the popular PAX with all of the same features, including field-upgradeable option cards. NEMA 4X/IP65.



See our online panel meter selector

**[www.redlion.net](http://www.redlion.net)**



**Learn more at [www.redlion.net](http://www.redlion.net).**

Call +1 (717) 767-6511 to speak to a representative.



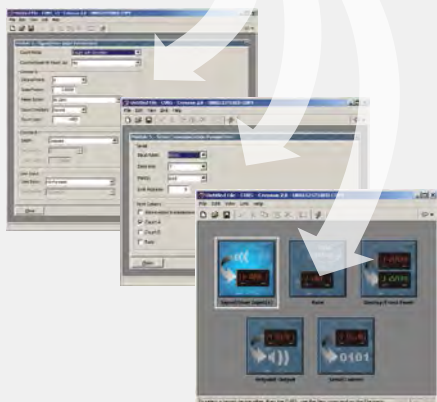
►►► **Plug-in flexibility and savings. Extendable solutions change everything.**



## **Crimson software: Easy-to-use, easier to value.**

### **Don't underestimate the value of free.**

Crimson is the only software in the industry that allows you to program panel meters, temperature controllers, HMIs, gateways, the Data Station Plus, Modular Controllers and large displays—all from the same platform. And it offers portability to let you save your configuration files to let you program other meters and Red Lion devices. This open, intuitive, menu-driven solution guides you quickly through set-up, and delivers performance and capabilities that not only rivals costly competitor software, but exceeds them. No solution is faster, easier or more flexible. At any price.



## **The last meter you will ever buy.**

Red Lion's CUB5 and PAX meters offer the capability to add and change option cards as your application and communications requirements change. Red Lion field-upgradeable solutions are the perfect alternative to competitive meters that force you to order a new meter every time conditions change. With Red Lion meters, simply order the option card you need for easy, plug-and-play installation. With our wide range of output cards, including communications, setpoints and retransmitted analog, Red Lion can handle your challenging applications and changing requirements.



*Change functions and add capabilities with plug-and-play, field-installable cards.*



*USB cards let you quickly connect to computers and communicate directly to the meters. No more messy converters.*

## **Integrate your process.**

Extend the reach of Red Lion panel meters by connecting them to a Graphite® HMI, Data Station Plus, or Modular Controller. Share panel meter data with other devices by using one of the 300+ protocols and log panel meter data to an IT-ready file. Use pass-through programming to configure the panel meter remotely, then modify panel meter parameters if configuration changes are required.

When connected to a Graphite HMI, Data Station Plus or Modular Controller, a panel meter can send alarm or event information via email or SMS. And you can view data remotely using a web browser for real-time monitoring and control.



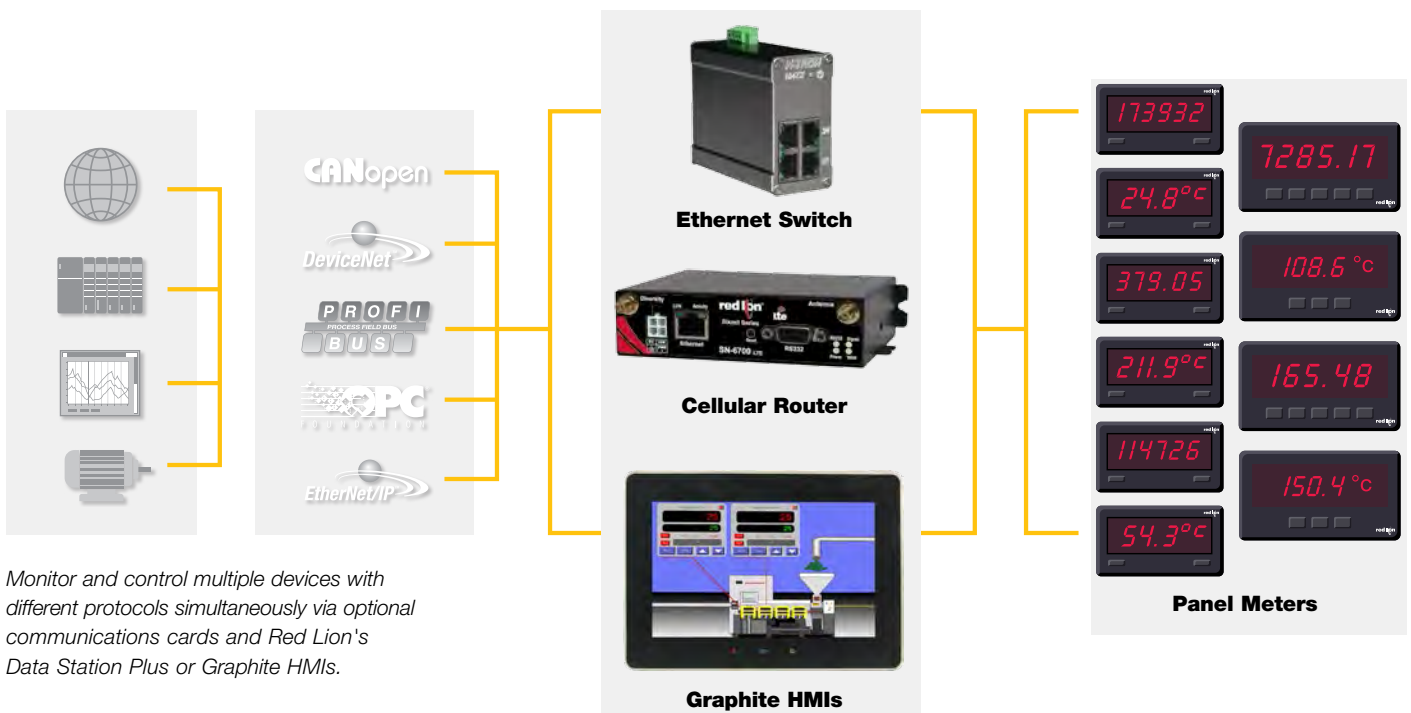
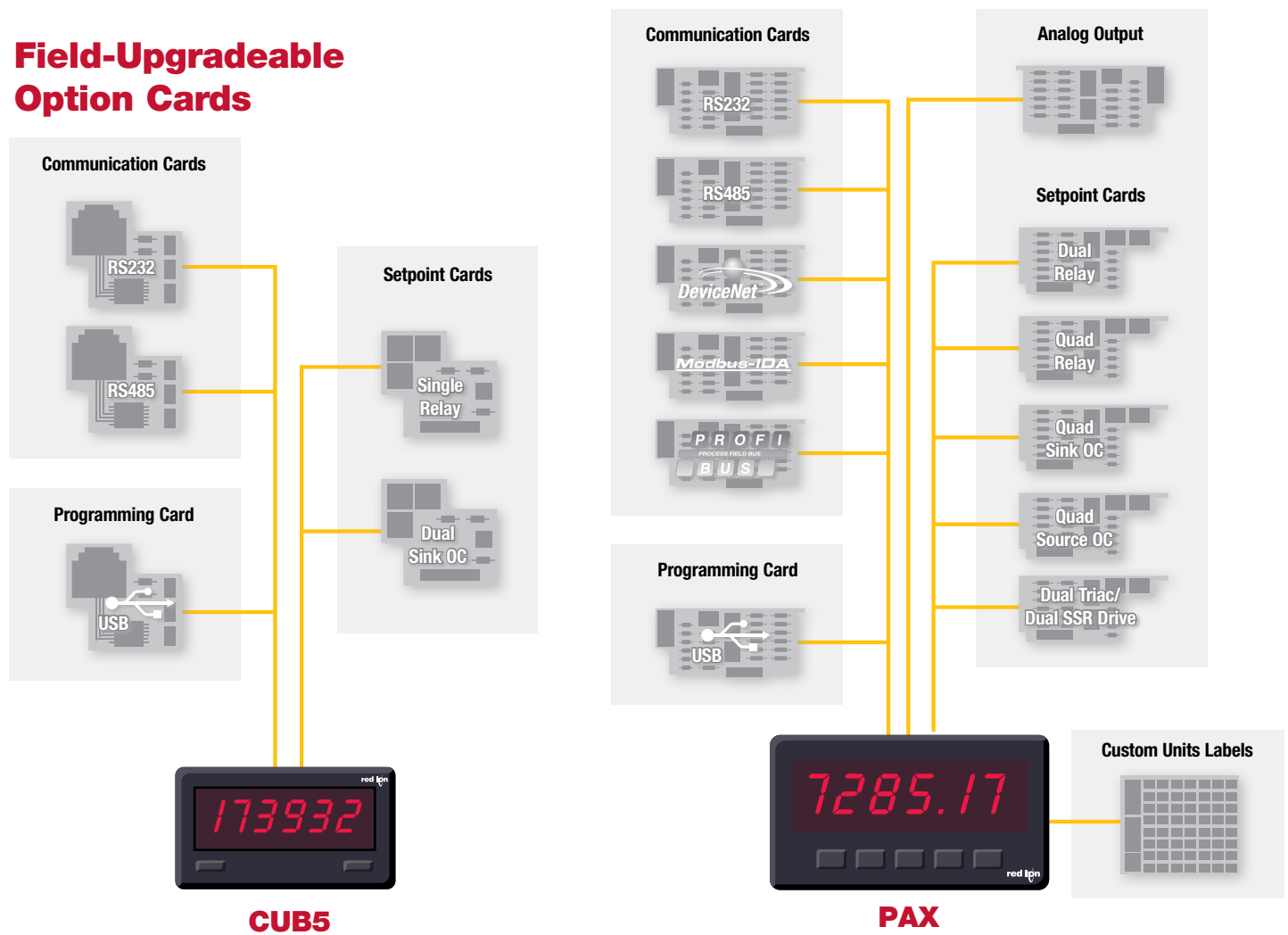
*Extend your reach even further with Red Lion's industrial switches and cellular products. Complete network connectivity and communications featuring built-in redundancy coupled with robust reliability and security ensures infrastructures like yours stay up and running around the clock.*



*Red Lion Graphite models are available in 7", 9", 10", 12" and 15" color touchscreens.*

## ►►► Plug-in option cards: Innovation and flexibility.

### Field-Upgradeable Option Cards



## ▶▶▶ Panel meter specifications

### Indication



### Control & Indication



#### CUB7

Miniature 1/32 DIN

#### PAX Lite

1/8 DIN Meter

#### CUB5

Miniature Intelligent Meter

#### C48C/C48T

Miniature 1/16 DIN

#### LD

Large Displays

|                           |                                                               |                                                                         |                                                                    |                                                                          |                                                                                                                |
|---------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Display Type              | 8-Digit Reflective, Red, or Green Backlight LCD, 0.35" (9 mm) | 5- to 8-Digit Red LED Display 0.56" (14 mm)                             | 5- or 8-Digit Reflective or Red/Green Backlight LCD, 0.46" (12 mm) | 6-Digit Reflective or Red/Green Backlight LCD, 0.3" (7.6 mm)/0.2" (5 mm) | 5- and 6-Digit 2.25" (57 mm) or 4" (101 mm) Red LED Display                                                    |
| Dimension (W x H)         | 2" x 1.1" (51 x 28 mm)                                        | 3.80" x 1.95" (97 x 50 mm)                                              | 2.95" x 1.5" (75 x 38 mm)                                          | 1.95" x 1.95" (50 x 50 mm)                                               | 12" x 4" (304 x 101 mm) or 16" x 4" (406 x 101 mm) or 20" x 7.87" (508 x 200 mm) or 26" x 7.87" (660 x 200 mm) |
| Input Capability          | Count and Time                                                | Count, Rate, Time, Current, Voltage, Process, Strain Gage & Temperature | Count, Rate, Time, Current, Voltage, Process and Temperature       | Count or Time                                                            | Count, Rate, Time, Current, Voltage, Process and Serial Slave                                                  |
| Setpoint Capability       | N/A                                                           | Dual Outputs (Some Models)                                              | Single or Dual Outputs*                                            | Single, Dual & Triple Outputs                                            | Single or Dual Outputs                                                                                         |
| Retransmitted Analog      | N/A                                                           | N/A                                                                     | N/A                                                                | N/A                                                                      | N/A                                                                                                            |
| Power Source              | Lithium Battery, 9 to 28 VDC for Backlighting                 | 85 to 250 VAC                                                           | 9 to 28 VDC                                                        | 85 to 250 VAC or 18 to 36 VDC/24 VAC                                     | Universal Power, 50 to 250 VAC and 22 to 250 VDC                                                               |
| Sensor Excitation         | N/A                                                           | Yes                                                                     | N/A                                                                | Yes*                                                                     | Yes                                                                                                            |
| Other Features            | Front Panel Reset or Remote Reset                             | Custom Units Overlay for Analog Meters                                  | 2 Option Card Slots. Front Panel Reset or Remote Reset             | N/A                                                                      | N/A                                                                                                            |
| Communications Capability | N/A                                                           | N/A                                                                     | Yes*                                                               | Yes                                                                      | Yes                                                                                                            |
| NEMA 4X/IP65              | Front Panel                                                   | Front Panel                                                             | Front Panel                                                        | Front Panel                                                              | Sealed Case                                                                                                    |

### DIGITAL Applications

#### CUB5

#### PAX Lite

#### C48C/C48T

#### PAX/PAX2

#### Large Displays

|                     |                      |                    |             |                      |                      |
|---------------------|----------------------|--------------------|-------------|----------------------|----------------------|
| Counting/Totalizing | CUB5R000, CUB5B000   | PAXLC600, PAXLC800 | C48C Series | PAXC0020, PAX2D000   | LD Series, LPAX/EPAX |
| Preset Count        | CUB5R000*, CUB5B000* | PAXLCR00           | C48C Series | PAXI0020*, PAX2D000* | LD Series, LPAX/EPAX |
| Batch Count         | CUB5R000*, CUB5B000* | N/A                | C48C Series | PAXI0020*, PAX2D000* | LD Series, LPAX/EPAX |
| Rate Indication     | CUB5R000, CUB5B000   | PAXLR000           | N/A         | PAXR0020, PAX2D000   | LD Series, LPAX/EPAX |
| Rate Control        | CUB5R000*, CUB5B000* | PAXLCR00           | N/A         | PAXI0020*, PAX2D000* | LD Series, LPAX/EPAX |
| Elapsed Timing      | CUB5TR00, CUB5TB00   | N/A                | C48T Series | PAXTM000             | LD Series, LPAX/EPAX |
| Time Control        | CUB5TR00*, CUB5TB00* | N/A                | C48T Series | PAXTM000*            | LD Series, LPAX/EPAX |
| Real-Time Clock     | N/A                  | N/A                | N/A         | PAXCK000             | LPAX/EPAX            |

\*Meter requires option card to provide capability.



See our online panel meter selector [www.redlion.net](http://www.redlion.net)

## Advanced Control & Indication



**PAX**

1/8 DIN Intelligent Meter



**PAX2 Dual Line**

1/8 DIN Intelligent Meter



**PAX2C Dual Line**

1/8 DIN Intelligent Meter



**LPAX/EPAX**

Large Displays



**T48/P48**

Miniature 1/16 DIN

|                                                                              |                                                                                                                                             |                                                                                                                                                                                                        |                                                                                                               |                                                                         |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 5- or 6-Digit Red or Green LED Display<br>0.56" (14 mm)                      | Line 1 - Backlight 6-Digit, 0.71" (18mm)<br>Red/Orange/Green LCD Display<br>Line 2 - Backlight 9-Digit, 0.35" (8.9 mm)<br>Green LCD Display | Vertical and Horizontal units with<br>Red/Orange/Green LCD Display<br>Vertical: Line 1 - 0.51" (13 mm),<br>Line 2 - 0.44" (11.2 mm)<br>Horizontal: Line 1 - 0.62" (15.7 mm),<br>Line 2 - 0.47" (12 mm) | 5- and 6-Digit 1.5" (38 mm) or<br>4" (101 mm) Red LED Display                                                 | 4-Digit Dual Line Red/Green LED Display<br>0.4" (10.2 mm)/0.3" (7.6 mm) |
| 3.80" x 1.95" (97 x 50 mm)                                                   | 3.80" x 1.95" (97 x 50 mm)                                                                                                                  | 3.80" x 1.95" (97 x 50 mm) - Horizontal<br>1.95" x 3.80" (50 x 97 mm) - Vertical                                                                                                                       | 10" x 4.75" (254 x 121 mm) or 24.77" x<br>7.2" (629 x 183 mm)                                                 | 1.95" x 1.95" (50 x 50 mm)                                              |
| Count, Rate, Time, Current, Voltage,<br>Process, Strain Gage and Temperature | Current, Voltage, Process, Resistance,<br>and Temperature                                                                                   | Full PID Control for Process and<br>Temperature                                                                                                                                                        | Count, Rate, Time, Current, Voltage,<br>Process, Strain Gage and Temperature<br>(INRT Module Sold Separately) | Full PID Control for<br>Temperature or Process                          |
| Dual or Quad Outputs*                                                        | Dual or Quad Outputs*                                                                                                                       | Dual or Quad Outputs*                                                                                                                                                                                  | Dual or Quad Outputs*                                                                                         | Single, Dual & Triple Outputs                                           |
| Yes*                                                                         | Yes*                                                                                                                                        | Yes*                                                                                                                                                                                                   | Yes*                                                                                                          | Yes                                                                     |
| 85 to 250 VAC or 11 to 36 VDC                                                | Universal Power, 50 to 250 VAC and 22<br>to 250 VDC                                                                                         | Universal Power, 50 to 250 VAC and 22<br>to 250 VDC                                                                                                                                                    | 85 to 250 VAC or 11 to 36 VDC                                                                                 | 85 to 250 VAC or 18 to 36 VDC/24 VAC                                    |
| Yes                                                                          | Yes                                                                                                                                         | Yes                                                                                                                                                                                                    | Yes                                                                                                           | N/A                                                                     |
| Custom Units Overlay for Analog Meters,<br>3 Option Card Slots               | Custom Programmable Mnemonics, 3<br>Option Card Slots,                                                                                      | Custom Programmable Mnemonics 3<br>Option Card Slots                                                                                                                                                   | USB Programming Card, 3 Option Card<br>Slots                                                                  | N/A                                                                     |
| Yes*                                                                         | Yes*                                                                                                                                        | Yes*                                                                                                                                                                                                   | Yes*                                                                                                          | Yes                                                                     |
| Front Panel                                                                  | Front Panel                                                                                                                                 | Front Panel                                                                                                                                                                                            | Front Panel                                                                                                   | Front Panel                                                             |

| ANALOG Applications           | CUB5                                     | PAX Lite           | T48/P48        | PAX/PAX2           | Large Displays       |
|-------------------------------|------------------------------------------|--------------------|----------------|--------------------|----------------------|
| AC Current                    | N/A                                      | PAXLIA00, PAXLIT00 | N/A            | PAXH0000           | LPAX/EPAX            |
| AC Voltage                    | N/A                                      | PAXLVA00, PAXLHV00 | N/A            | PAXH0000           | LPAX/EPAX            |
| DC Current                    | CUB5IR00, CUB5IB00                       | PAXLID00, PAXLA000 | N/A            | PAXD0000 PAX2A000, | LD Series, LPAX/EPAX |
| DC Voltage                    | CUB5VR00, CUB5VB00                       | PAXLVD00, PAXLA000 | N/A            | PAXD0000, PAX2A000 | LD Series, LPAX/EPAX |
| Process Signals               | CUB5PR00, CUB5PB00                       | PAXLCL00, PAXLA000 | N/A            | PAXP0000, PAX2A000 | LD Series, LPAX/EPAX |
| Temperature, RTD/Thermocouple | CUB5RTR0, CUB5RTB0<br>CUB5TCR0, CUB5TCB0 | PAXLRT00, PAXLT000 | N/A            | PAXT0000, PAX2A000 | LPAX/EPAX            |
| Strain Gage/Load Cells        | N/A                                      | PAXLSG00           | N/A            | PAXS0000           | LPAX/EPAX            |
| PID Controller                | N/A                                      | N/A                | T48/P48 Series | PX2A8H00, PX2A8V00 | N/A                  |



►►► A comprehensive portfolio of industrial automation and networking solutions to **connect. monitor. control.**



## INDUSTRIAL AUTOMATION

### Process Control

- PID Controllers
- Data Acquisition
- RTUs & I/O Modules
- Signal Conditioners
- Sensors

### HMIs & Panel Meters

- HMI Operator Panels
- Panel Meters
- Large LED Displays
- Visual Management

## INDUSTRIAL NETWORKING

### Ethernet Switches

- Unmanaged
- Monitored
- Managed
- PoE
- Routers
- Wi-Fi Radios

### Cellular M2M

- Cellular Routers
- Cellular RTUs

### Communication Converters

- Protocol Converters
- Media Converters
- Serial Converters



[www.redlion.net](http://www.redlion.net)

**Connect. Monitor. Control.**

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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 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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