

# Industrial Automation

## Product Guide







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HMI Operator Panels

Powerful multi-protocol support enables communication between 300+ industrial protocols. Configured with the award-winning, easy-to-use Crimson® software, which is included at no additional cost.

- > Convert between 300+ industrial protocols
- > Collect, store and display data
- > Easily integrate into multi-vendor environments
- > Configure using Crimson software



Graphite® Rugged Advanced HMIs

- > Unparalleled expansion capabilities using plug-in modules
- > Wide -20° to 60°C operating temperature range
- > Rugged sunlight visible outdoor rated models
- > Support for 300+ industrial protocols, up to 20 simultaneous conversions
- > Built-in data logging (SD card), web server and FTP for remote access
- > Send email and/or SMS based on alarm conditions
- > All models UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER | INDOOR/<br>OUTDOOR | DISPLAY<br>SIZE | DISPLAY    | SERIAL<br>PORTS | ETHERNET<br>PORTS | USB HOST | EXPANSION      | CARD<br>SUPPORT |
|--------------|--------------------|-----------------|------------|-----------------|-------------------|----------|----------------|-----------------|
| G07C0000     | Indoor             | 7"              | 800 x 480  | 3 iso.          | 1                 | 2        | 5 Module Slots | SD Card         |
| G07S0000     | Outdoor            | 7"              | 800 x 480  | 3 iso.          | 1                 | 2        | 5 Module Slots | SD Card         |
| G09C0000     | Indoor             | 9"              | 800 x 480  | 3 iso.          | 1                 | 2        | 6 Module Slots | SD Card         |
| G09C1000     | Indoor             | 9"              | 800 x 480  | 3 iso.          | 2                 | 2        | 6 Module Slots | SD Card         |
| G10C0000     | Indoor             | 10"             | 640 x 480  | 3 iso.          | 1                 | 2        | 7 Module Slots | SD Card         |
| G10C1000     | Indoor             | 10"             | 640 x 480  | 3 iso.          | 2                 | 2        | 7 Module Slots | SD Card         |
| G10R0000     | Indoor             | 10"             | 800 x 600  | 3 iso.          | 1                 | 2        | 7 Module Slots | SD Card         |
| G10R1000     | Indoor             | 10"             | 800 x 600  | 3 iso.          | 2                 | 2        | 7 Module Slots | SD Card         |
| G10S0000     | Outdoor            | 10"             | 640 x 480  | 3 iso.          | 1                 | 2        | 7 Module Slots | SD Card         |
| G10S1000     | Outdoor            | 10"             | 640 x 480  | 3 iso.          | 2                 | 2        | 7 Module Slots | SD Card         |
| G12C0000     | Indoor             | 12"             | 1280 x 800 | 3 iso.          | 1                 | 2        | 8 Module Slots | SD Card         |
| G12C1100     | Indoor             | 12"             | 1280 x 800 | 4 iso.          | 2                 | 2        | 8 Module Slots | SD Card         |
| G15C0000     | Indoor             | 15"             | 1024 x 768 | 3 iso.          | 1                 | 2        | 8 Module Slots | SD Card         |
| G15C1100     | Indoor             | 15"             | 1024 x 768 | 4 iso.          | 2                 | 2        | 8 Module Slots | SD Card         |

G3 Powerful Graphical HMIs

- > Support for 300+ industrial protocols
- > Built-in data logging (CF card), web server and FTP for remote access
- > Send email and/or SMS based on alarm conditions
- > Multiple connectivity options including serial, Ethernet and USB
- > All models UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER | INDOOR/<br>OUTDOOR | DISPLAY<br>SIZE | DISPLAY    | SERIAL<br>PORTS | ETHERNET<br>PORTS | USB HOST       | EXPANSION   | CARD<br>SUPPORT |
|--------------|--------------------|-----------------|------------|-----------------|-------------------|----------------|-------------|-----------------|
| G303M000     | Indoor             | 3"              | 128 x 64   | 3               | 1                 | -              | 1 Card Slot | CF Card         |
| G303S000     | Outdoor            | 3"              | 128 x 64   | 3               | 1                 | -              | 1 Card Slot | CF Card         |
| G306M000     | Indoor             | 6"              | 320 x 240  | 3               | 1                 | -              | 1 Card Slot | CF Card         |
| G306A000     | Indoor             | 6"              | 320 x 240  | 3               | 1                 | Expansion Card | 1 Card Slot | CF Card         |
| G306MS00     | Outdoor            | 6"              | 320 x 240  | 3               | 1                 | -              | 1 Card Slot | CF Card         |
| G308C100     | Indoor             | 8"              | 640 x 480  | 3               | 1                 | -              | 1 Card Slot | CF Card         |
| G308A210     | Indoor             | 8"              | 640 x 480  | 3 iso.          | 1                 | 1              | 1 Card Slot | CF Card         |
| G310C210     | Indoor             | 10"             | 640 x 480  | 3 iso.          | 1                 | 1              | 1 Card Slot | CF Card         |
| G310R210     | Indoor             | 10"             | 800 x 600  | 3 iso.          | 1                 | 1              | 1 Card Slot | CF Card         |
| G310R230     | Indoor             | 10"             | 800 x 600  | 3 iso.          | 2                 | 1              | 1 Card Slot | CF Card         |
| G310S210     | Outdoor            | 10"             | 640 x 480  | 3 iso.          | 1                 | 1              | 1 Card Slot | CF Card         |
| G310S230     | Outdoor            | 10"             | 640 x 480  | 3 iso.          | 2                 | 1              | 1 Card Slot | CF Card         |
| G315C210     | Indoor             | 15"             | 1024 x 768 | 4 iso.          | 1                 | 1              | 1 Card Slot | CF Card         |
| G315C230     | Indoor             | 15"             | 1024 x 768 | 4 iso.          | 2                 | 1              | 1 Card Slot | CF Card         |

G3 Kadet HMIs

- > Support for 300+ industrial protocols
- > Several connectivity options including serial and Ethernet



| MODEL NUMBER | INDOOR/<br>OUTDOOR | DISPLAY<br>SIZE | DISPLAY   | SERIAL<br>PORTS | ETHERNET<br>PORTS | USB HOST | EXPANSION | CARD<br>SUPPORT |
|--------------|--------------------|-----------------|-----------|-----------------|-------------------|----------|-----------|-----------------|
| G304K200     | Indoor             | 4"              | 480 x 272 | 2               | 1                 | -        | -         | -               |
| G307K200     | Indoor             | 7"              | 800 x 480 | 3               | 1                 | -        | -         | SD Card         |

HMI Operator Panel Feature Comparison

| FEATURES                      | GRAPHITE | G3 HMI | G3 KADET |
|-------------------------------|----------|--------|----------|
| Serial Ports                  | 4*       | 4*     | 3*       |
| Ethernet                      | 2*       | 2*     | 1        |
| USB Host                      | 2        | 1*     |          |
| Crimson Programmed            | •        | •      | •        |
| C-Type User Programming       | •        | •      |          |
| Protocol Converter            | •        | •      | •        |
| On-Display Keypad             |          | •      |          |
| Web Server, FTP, Data Logging | •        | •      |          |
| Expansion Card Slots          | 8*       | 1      |          |
| Wide Temp. Range              | •        |        |          |

\* Model specific

Panel Meters

Red Lion offers the widest and most comprehensive line of panel meters in the industry. Our meters are available in various sizes and capabilities including count, rate, time, voltage, current, process, strain gage and temperature inputs. With over 4 million units sold, our panel meters are field proven, time tested and have earned the distinction of being consistently voted the industry's #1 brand by the readers of *Control Design* for 14 years and counting.

- > Over 40 years of proven reliability
- > Wide model range supports varying requirements
- > Field upgradeable I/O and communication cards



Panel Meter Feature Comparison

| FEATURES     | PAX2 SERIES | PAX SERIES | PAX LITE SERIES | C48 SERIES | CUB5 SERIES | CUB4 SERIES | CUB7 SERIES |
|--------------|-------------|------------|-----------------|------------|-------------|-------------|-------------|
| Count        | •           | •          | •               | •          | •           | •           | •           |
| Count/Rate   | •           | •          | •               |            | •           |             |             |
| Rate         | •           | •          | •               |            | •           |             |             |
| Time         |             | •          |                 | •          | •           |             | •           |
| Current      | •           | •          | •               |            | •           | •           |             |
| Process      | •           | •          | •               |            | •           | •           |             |
| Voltage      | •           | •          | •               |            | •           | •           |             |
| Strain Gauge | •           | •          | •               |            |             |             |             |
| Temperature  | •           | •          | •               |            | •           | •           |             |

PAX®2 1/8 DIN Advanced Universal Panel Meters

- > Digital or analog input models
- > Dual-line, tri-color display
- > Up to 16 alarms with color changing display
- > Many field-upgradeable modules including I/O and communication cards

| MODEL NUMBER | FUNCTION                                                                                        |
|--------------|-------------------------------------------------------------------------------------------------|
| PAX2A000     | Universal DC Analog Input Meter: DC Current, DC Voltage, Process, RTD, Thermocouple, Resistance |
| PAX2D000     | Universal Digital Counter                                                                       |
| PAX2S000     | Strain Gage Meter                                                                               |



PAX 1/8 DIN Analog and Digital Panel Meters

- > Digital or analog input models
- > Up to four setpoint alarms
- > Optional communication cards include RS-232, RS-485, Modbus®, DeviceNet® and PROFIBUS-DP



Digital

| MODEL NUMBER | FUNCTION                   | DISPLAY LENGTH | DISPLAY HEIGHT | LED   | POWER | RETRANS. ANALOG | COMM. CAPABILITY |
|--------------|----------------------------|----------------|----------------|-------|-------|-----------------|------------------|
| PAXI0020     | Dual Counter or Count/Rate | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXI0030     | Dual Counter or Count/Rate | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXI0120     | Dual Counter or Count/Rate | 6 Digit        | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXI0130     | Dual Counter or Count/Rate | 6 Digit        | 0.56" (14 mm)  | Green | DC    | Yes             | Yes              |
| PAXC0020     | Counter                    | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | -               | -                |
| PAXC0030     | Counter                    | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | -               | -                |
| PAXC0120     | Counter                    | 6 Digit        | 0.56" (14 mm)  | Green | AC    | -               | -                |
| PAXC0130     | Counter                    | 6 Digit        | 0.56" (14 mm)  | Green | DC    | -               | -                |
| PAXR0020     | Rate Meter                 | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | -               | -                |
| PAXR0030     | Rate Meter                 | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | -               | -                |
| PAXR0120     | Rate Meter                 | 6 Digit        | 0.56" (14 mm)  | Green | AC    | -               | -                |
| PAXR0130     | Rate Meter                 | 6 Digit        | 0.56" (14 mm)  | Green | DC    | -               | -                |
| PAXCK000     | Real-Time Clock            | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | -               | Yes              |
| PAXCK010     | Real-Time Clock            | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | -               | Yes              |
| PAXCK100     | Real-Time Clock            | 6 Digit        | 0.56" (14 mm)  | Green | AC    | -               | Yes              |
| PAXCK110     | Real-Time Clock            | 6 Digit        | 0.56" (14 mm)  | Green | DC    | -               | Yes              |
| PAXTM000     | Timer                      | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | -               | Yes              |
| PAXTM010     | Timer                      | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | -               | Yes              |
| PAXTM100     | Timer                      | 6 Digit        | 0.56" (14 mm)  | Green | AC    | -               | Yes              |
| PAXTM110     | Timer                      | 6 Digit        | 0.56" (14 mm)  | Green | DC    | -               | Yes              |

Analog

| MODEL NUMBER | FUNCTION                    | DISPLAY LENGTH | DISPLAY HEIGHT | LED   | POWER | RETRANS. ANALOG | COMM. CAPABILITY |
|--------------|-----------------------------|----------------|----------------|-------|-------|-----------------|------------------|
| PAXD0000     | Universal DC Analog Meter   | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXD0010     | Universal DC Analog Meter   | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXD0100     | Universal DC Analog Meter   | 6 Digit        | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXD0110     | Universal DC Analog Meter   | 6 Digit        | 0.56" (14 mm)  | Green | DC    | Yes             | Yes              |
| PAXDP000     | Dual Process Meter          | 6 Digit        | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXDP010     | Dual Process Meter          | 6 Digit        | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXH0000     | AC Current/Voltage Meter    | 4 1/2 Digit    | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXH0100     | AC Current/Voltage Meter    | 4 1/2 Digit    | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXP0000     | Process Meter               | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXP0010     | Process Meter               | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXP0100     | Process Meter               | 4 1/2 Digit    | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXP0110     | Process Meter               | 4 1/2 Digit    | 0.56" (14 mm)  | Green | DC    | Yes             | Yes              |
| PAXS0000     | Strain Gage Meter           | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXS0010     | Strain Gage Meter           | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXS0100     | Strain Gage Meter           | 4 1/2 Digit    | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXS0110     | Strain Gage Meter           | 4 1/2 Digit    | 0.56" (14 mm)  | Green | DC    | Yes             | Yes              |
| PAXT0000     | Universal Temperature Meter | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | AC    | Yes             | Yes              |
| PAXT0010     | Universal Temperature Meter | 4 1/2 Digit    | 0.56" (14 mm)  | Red   | DC    | Yes             | Yes              |
| PAXT0100     | Universal Temperature Meter | 4 1/2 Digit    | 0.56" (14 mm)  | Green | AC    | Yes             | Yes              |
| PAXT0110     | Universal Temperature Meter | 4 1/2 Digit    | 0.56" (14 mm)  | Green | DC    | Yes             | Yes              |



PAX Lite 1/8 DIN Display Meters



- > Basic function meters
- > AC or DC power input models
- > Red LED display with 0.56" (14 mm) tall digits



| MODEL NUMBER | FUNCTION                    | DISPLAY LENGTH | SETPOINTS | POWER |
|--------------|-----------------------------|----------------|-----------|-------|
| PAXLA0U0     | Universal DC Analog Meter   | 5 Digit        | Yes       | AC/DC |
| PAXLC600     | Counter                     | 6 Digit        | -         | AC    |
| PAXLCL00     | Current Loop Meter          | 3 1/2 Digit    | -         | AC    |
| PAXLCRU0     | Dual Counter and Rate Meter | 6 Digit        | Yes       | AC/DC |
| PAXLHV00     | AC Voltage Meter            | 3 Digit        | -         | AC    |
| PAXLIA00     | AC Current Meter            | 3 1/2 Digit    | -         | AC    |
| PAXLID00     | DC Current Meter            | 3 1/2 Digit    | -         | AC    |
| PAXLIT00     | 5 Amp Current Meter         | 3 1/2 Digit    | -         | AC    |
| PAXLPT00     | Process Time Indicator      | 6 Digit        | -         | AC    |
| PAXLPV00     | Process Volt Meter          | 3 1/2 Digit    | -         | AC    |
| PAXLR000     | Rate Meter                  | 6 Digit        | -         | AC    |
| PAXLRT00     | RTD Meter                   | 4 Digit        | -         | AC    |
| PAXLSG00     | Strain Gage Meter           | 3 1/2 Digit    | -         | AC    |
| PAXLT0U0     | Universal Temperature Meter | 3 1/2 Digit    | Yes       | AC/DC |
| PAXLTC00     | Thermocouple Meter          | 4 Digit        | -         | AC    |
| PAXLVA00     | AC Voltage Meter            | 3 1/2 Digit    | -         | AC    |
| PAXLVD00     | DC Volt Meter               | 3 1/2 Digit    | -         | AC    |

C48 1/16 DIN Preset Counter and Timer Meters



- > Single, dual and batch output(s) models
- > Sinking and sourcing sensor input operation
- > Two-line, six-digit display in red/green or reflective LCD



Counter

| MODEL NUMBER | FUNCTION              | DISPLAY COLOR            | POWER | O.C. OUTPUT | RELAY OUTPUT(S) | COMMS |
|--------------|-----------------------|--------------------------|-------|-------------|-----------------|-------|
| C48CS113     | Single Preset Counter | Green/Red with Backlight | DC    | Yes         | Yes             | -     |
| C48CS003     | Single Preset Counter | Black Reflective         | AC    | Yes         | Yes             | -     |
| C48CS013     | Single Preset Counter | Black Reflective         | DC    | Yes         | Yes             | -     |
| C48CS103     | Single Preset Counter | Green/Red with Backlight | AC    | Yes         | Yes             | -     |
| C48CD102     | Dual Preset Counter   | Green/Red with Backlight | AC    | -           | Yes             | -     |
| C48CD105     | Dual Preset Counter   | Green/Red with Backlight | AC    | Yes         | -               | Yes   |
| C48CD107     | Dual Preset Counter   | Green/Red with Backlight | AC    | -           | Yes             | Yes   |
| C48CD110     | Dual Preset Counter   | Green/Red with Backlight | DC    | Yes         | -               | -     |
| C48CD112     | Dual Preset Counter   | Green/Red with Backlight | DC    | -           | Yes             | -     |
| C48CD115     | Dual Preset Counter   | Green/Red with Backlight | DC    | Yes         | -               | Yes   |
| C48CD117     | Dual Preset Counter   | Green/Red with Backlight | DC    | -           | Yes             | Yes   |
| C48CP005     | Dual Preset Counter   | Black Reflective         | AC    | Yes         | -               | Yes   |
| C48CP015     | Dual Preset Counter   | Black Reflective         | DC    | Yes         | -               | Yes   |
| C48CD002     | Dual Preset Counter   | Black Reflective         | AC    | -           | Yes             | -     |
| C48CP100     | Dual Preset Counter   | Green/Red with Backlight | AC    | Yes         | -               | -     |
| C48CD005     | Dual Preset Counter   | Black Reflective         | AC    | Yes         | -               | Yes   |
| C48CP105     | Dual Preset Counter   | Green/Red with Backlight | AC    | Yes         | -               | Yes   |
| C48CD007     | Dual Preset Counter   | Black Reflective         | AC    | -           | Yes             | Yes   |
| C48CP110     | Dual Preset Counter   | Green/Red with Backlight | DC    | Yes         | -               | -     |

Counter

| MODEL NUMBER | FUNCTION            | DISPLAY                  | POWER | O.C. OUTPUT | RELAY OUTPUT(S) | COMMS |
|--------------|---------------------|--------------------------|-------|-------------|-----------------|-------|
| C48CD012     | Dual Preset Counter | Black Reflective         | DC    | -           | Yes             | -     |
| C48CP115     | Dual Preset Counter | Green/Red with Backlight | DC    | Yes         | -               | Yes   |
| C48CD015     | Dual Preset Counter | Black Reflective         | DC    | Yes         | -               | Yes   |
| C48CD017     | Dual Preset Counter | Black Reflective         | DC    | -           | Yes             | Yes   |
| C48CD100     | Dual Preset Counter | Green/Red with Backlight | AC    | Yes         | -               | -     |
| C48CB003     | Batch Counter       | Black Reflective         | AC    | Yes         | Yes             | -     |
| C48CB005     | Batch Counter       | Black Reflective         | AC    | Yes         | -               | Yes   |
| C48CB008     | Batch Counter       | Black Reflective         | AC    | Yes         | Yes             | Yes   |
| C48CB100     | Batch Counter       | Green/Red with Backlight | AC    | Yes         | -               | -     |
| C48CB103     | Batch Counter       | Green/Red with Backlight | AC    | Yes         | Yes             | -     |
| C48CB105     | Batch Counter       | Green/Red with Backlight | AC    | Yes         | -               | Yes   |
| C48CB108     | Batch Counter       | Green/Red with Backlight | AC    | Yes         | Yes             | Yes   |
| C48CB110     | Batch Counter       | Green/Red with Backlight | DC    | Yes         | -               | -     |

Timer

| MODEL NUMBER | FUNCTION            | DISPLAY                  | POWER | O.C. OUTPUT | RELAY OUTPUT(S) | COMMS |
|--------------|---------------------|--------------------------|-------|-------------|-----------------|-------|
| C48TS003     | Single Preset Timer | Black Reflective         | AC    | Yes         | Yes             | -     |
| C48TS013     | Single Preset Timer | Black Reflective         | DC    | Yes         | Yes             | -     |
| C48TS103     | Single Preset Timer | Green/Red with Backlight | AC    | Yes         | Yes             | -     |
| C48TS113     | Single Preset Timer | Green/Red with Backlight | DC    | Yes         | Yes             | -     |
| C48TD002     | Dual Preset Timer   | Black Reflective         | AC    | -           | Yes             | -     |
| C48TD005     | Dual Preset Timer   | Black Reflective         | AC    | Yes         | -               | Yes   |
| C48TD007     | Dual Preset Timer   | Black Reflective         | AC    | -           | Yes             | Yes   |
| C48TD012     | Dual Preset Timer   | Black Reflective         | DC    | -           | Yes             | -     |
| C48TD102     | Dual Preset Timer   | Green/Red with Backlight | AC    | -           | Yes             | -     |
| C48TD105     | Dual Preset Timer   | Green/Red with Backlight | AC    | Yes         | -               | Yes   |
| C48TD107     | Dual Preset Timer   | Green/Red with Backlight | AC    | -           | Yes             | Yes   |
| C48TD112     | Dual Preset Timer   | Green/Red with Backlight | DC    | -           | Yes             | -     |
| C48TD117     | Dual Preset Timer   | Green/Red with Backlight | DC    | -           | Yes             | Yes   |

CUB®5 Analog and Digital Panel Meters



- > Single or dual setpoint control, field-installable relay or SSR and communication cards
- > 9 to 28 VDC power input
- > Width 2.68" (68 mm) x height 1.3" (33 mm) x depth 1.29" (44 mm)



| MODEL NUMBER | FUNCTION                   | DISPLAY LENGTH | DISPLAY HEIGHT | DISPLAY COLOR       | COLOR CHANGE AT SETPOINT |
|--------------|----------------------------|----------------|----------------|---------------------|--------------------------|
| CUB5VB00     | DC Volt Meter              | 5 Digit        | 0.48" (12 mm)  | Red/Green Backlight | Yes                      |
| CUB5VR00     | DC Volt Meter              | 5 Digit        | 0.48" (12 mm)  | Reflective          | -                        |
| CUB5TB00     | Timer                      | 7 Digit        | 0.46" (11 mm)  | Red/Green Backlight | Yes                      |
| CUB5TR00     | Timer                      | 7 Digit        | 0.46" (11 mm)  | Reflective          | -                        |
| CUB5B000     | Dual Counter or Count/Rate | 8 Digit        | 0.46" (11 mm)  | Red/Green Backlight | Yes                      |
| CUB5R000     | Dual Counter or Count/Rate | 8 Digit        | 0.46" (11 mm)  | Reflective          | -                        |
| CUB5PB00     | Process Meter              | 5 Digit        | 0.48" (12 mm)  | Red/Green Backlight | Yes                      |
| CUB5PR00     | Process Meter              | 5 Digit        | 0.48" (12 mm)  | Reflective          | -                        |
| CUB5IB00     | DC Current Meter           | 5 Digit        | 0.48" (12 mm)  | Red/Green Backlight | Yes                      |
| CUB5IR00     | DC Current Meter           | 5 Digit        | 0.48" (12 mm)  | Reflective          | -                        |
| CUB5RTB0     | RTD Meter                  | 5 Digit        | 0.48" (12 mm)  | Red/Green Backlight | Yes                      |
| CUB5RTR0     | RTD Meter                  | 5 Digit        | 0.48" (12 mm)  | Reflective          | -                        |
| CUB5TCB0     | Thermocouple Meter         | 5 Digit        | 0.48" (12 mm)  | Red/Green Backlight | Yes                      |
| CUB5TCR0     | Thermocouple Meter         | 5 Digit        | 0.48" (12 mm)  | Reflective          | -                        |

CUB4 Analog and Digital Panel Meters

- > Basic function display meters
- > Red/green backlight or reflective LCD display
- > 9 to 28 VDC power input
- > Width 2.68" (68 mm) x height 1.3" (33 mm) x depth 1.29" (44 mm)



| MODEL NUMBER | FUNCTION                   | DISPLAY LENGTH | DISPLAY HEIGHT | DISPLAY COLOR                   |
|--------------|----------------------------|----------------|----------------|---------------------------------|
| CUB4L000     | Counter                    | 6 Digit        | 0.48" (12 mm)  | Reflective                      |
| CUB4L010     | Counter                    | 6 Digit        | 0.48" (12 mm)  | Green Backlight                 |
| CUB4L020     | Counter                    | 6 Digit        | 0.48" (12 mm)  | Red Backlight                   |
| CUB4L800     | Counter                    | 8 Digit        | 0.46" (12 mm)  | Reflective                      |
| CUB4L810     | Counter                    | 8 Digit        | 0.46" (12 mm)  | Green Backlight                 |
| CUB4L820     | Counter                    | 8 Digit        | 0.46" (12 mm)  | Red Backlight                   |
| CUB4V000     | DC Volt Meter              | 3 1/2 Digit    | 0.6" (15 mm)   | Reflective                      |
| CUB4V010     | DC Volt Meter              | 3 1/2 Digit    | 0.6" (15 mm)   | Green Backlight                 |
| CUB4V020     | DC Volt Meter              | 3 1/2 Digit    | 0.6" (15 mm)   | Red Backlight                   |
| CUB4CL10     | Current Loop Meter         | 3 1/2 Digit    | 0.6" (15 mm)   | Green Backlight, Negative Image |
| CUB4CL20     | Current Loop Meter         | 3 1/2 Digit    | 0.6" (15 mm)   | Red Backlight, Negative Image   |
| CUB4CL30     | Current Loop Meter         | 3 1/2 Digit    | 0.6" (15 mm)   | Green Backlight, Positive Image |
| CUB4CL40     | Current Loop Meter         | 3 1/2 Digit    | 0.6" (15 mm)   | Red Backlight, Positive Image   |
| CUB4I000     | DC Current Meter           | 3 1/2 Digit    | 0.6" (15 mm)   | Reflective                      |
| CUB4I010     | DC Current Meter           | 3 1/2 Digit    | 0.6" (15 mm)   | Green Backlight                 |
| CUB4I020     | DC Current Meter           | 3 1/2 Digit    | 0.6" (15 mm)   | Red Backlight                   |
| CUB4LP00     | Loop Powered Process Meter | 3 1/2 Digit    | 0.6" (15 mm)   | Reflective                      |
| CUB4LP40     | Loop Powered Process Meter | 3 1/2 Digit    | 0.6" (15 mm)   | Red Backlight                   |

CUB7 1/32 DIN Counters and Timers

- > Eight-digit display with 0.35" (9 mm) numbers
- > Yellow/green or red backlight LCD display
- > Provides contact, logic, open collector or high-voltage input



| MODEL NUMBER | FUNCTION | DISPLAY COLOR   | INPUTS            | TIMING                  |
|--------------|----------|-----------------|-------------------|-------------------------|
| CUB7CCG0     | Counter  | Backlight Green | 28 VDC max        | -                       |
| CUB7CCR0     | Counter  | Backlight Red   | 28 VDC max        | -                       |
| CUB7CCS0     | Counter  | Reflective      | 28 VDC max        | -                       |
| CUB7CVG0     | Counter  | Backlight Green | 50 to 250 VAC/VDC | -                       |
| CUB7CVR0     | Counter  | Backlight Red   | 50 to 250 VAC/VDC | -                       |
| CUB7CVS0     | Counter  | Reflective      | 50 to 250 VAC/VDC | -                       |
| CUB7TCG0     | Timer    | Backlight Green | 28 VDC max        | Time when input is low  |
| CUB7TCG1     | Timer    | Backlight Green | 28 VDC max        | Time when input is high |
| CUB7TCR0     | Timer    | Backlight Red   | 28 VDC max        | Time when input is low  |
| CUB7TCR1     | Timer    | Backlight Red   | 28 VDC max        | Time when input is high |
| CUB7TCS0     | Timer    | Reflective      | 28 VDC max        | Time when input is low  |
| CUB7TCS1     | Timer    | Reflective      | 28 VDC max        | Time when input is high |
| CUB7TVG0     | Timer    | Backlight Green | 50 to 250 VAC/VDC | Time when input is low  |
| CUB7TVR0     | Timer    | Backlight Red   | 50 to 250 VAC/VDC | Time when input is low  |
| CUB7TVS0     | Timer    | Reflective      | 50 to 250 VAC/VDC | Time when input is low  |

Large LED Displays

Red Lion offers a wide range of large LED displays with multiple inputs and optional output cards to meet a variety of visual display needs. Our large industrial displays are available with up to 4 inch (101 mm) tall characters and can display up to six digits to provide reliable visual display performance in rugged environments.

- > Available as complete solution or expandable with modules
- > Easily expand functionality with option cards
- > Universal power inputs (model specific)
- > Support for serial communication



LD2 2.25" Large Displays

- > 2.25-inch (57 mm) LED digits with adjustable intensity
- > Optional RS-232 or RS-485 communication ports
- > Universal AC/DC power input



| MODEL NUMBER | FUNCTION                   | DIGITS | BATCH/CYCLE | SETPOINTS | COMMS |
|--------------|----------------------------|--------|-------------|-----------|-------|
| LD200400     | Counter                    | 4      | -           | -         | -     |
| LD200600     | Counter                    | 6      | -           | -         | -     |
| LD2006P0     | Dual Counter/Rate          | 6      | Yes         | Yes       | Yes   |
| LD2A05P0     | DC Volt/DC Current/Process | 5      | -           | Yes       | Yes   |
| LD2SG5P0*    | Strain Gage                | 5      | -           | Yes       | Yes   |
| LD2SS6P0     | Serial Slave               | 6      | -           | Yes       | Yes   |
| LD2T06P0     | Timer                      | 6      | Yes         | Yes       | Yes   |

\* Not UL Listed



LD4 4” Large Displays  

- > Four-inch (101 mm) LED digits with adjustable intensity
- > Optional RS-232 or RS-485 communication ports
- > Universal AC/DC power input



| MODEL NUMBER | FUNCTION                   | DIGITS | BATCH/CYCLE | SETPOINTS | COMMS |
|--------------|----------------------------|--------|-------------|-----------|-------|
| LD400400     | Counter                    | 4      | -           | -         | -     |
| LD400600     | Counter                    | 6      | -           | -         | -     |
| LD4006P0     | Dual Counter/Rate          | 6      | Yes         | Yes       | Yes   |
| LD4A05P0     | DC Volt/DC Current/Process | 5      | -           | Yes       | Yes   |
| LD4SG5P0*    | Strain Gage                | 5      | -           | Yes       | Yes   |
| LD4SS6P0     | Serial Slave               | 6      | -           | Yes       | Yes   |
| LD4T06P0     | Timer                      | 6      | Yes         | Yes       | Yes   |

\* Not UL Listed

LPAX 1.5” Large Display, Field-Installable Option Cards  

- > 1.5-inch (38 mm) LED digits with adjustable intensity
- > AC or DC power input models
- > Easily add communication, setpoint and retransmitted analog functionality with option cards



| MODEL NUMBER | FUNCTION                          | DIGITS | SETPOINTS | COMMS | KEY FEATURES  |
|--------------|-----------------------------------|--------|-----------|-------|---------------|
| LPAX0500     | Display for Analog Input Modules  | 5      | Yes       | Yes   | Analog Output |
| LPAX0600     | Display for Digital Input Modules | 6      | Yes       | Yes   | Analog Output |
| LPAXCK00*    | Display for MPAXCK Module         | 6      | Yes       | Yes   | Analog Output |
| LPAXDA00*    | Display for MPAXDP Module         | 5      | Yes       | Yes   | Analog Output |

EPAX 4” Large Display, Field-Installable Option Cards  

- > Four-inch (101 mm) LED digits with adjustable intensity
- > 85 to 250 VAC power input
- > Easily add communication, setpoint and retransmitted analog functionality with option cards



| MODEL NUMBER | FUNCTION                          | DIGITS | SETPOINTS | COMMS | KEY FEATURES  |
|--------------|-----------------------------------|--------|-----------|-------|---------------|
| EPAX0500     | Display for Analog Input Modules  | 5      | Yes       | Yes   | Analog Output |
| EPAX0600     | Display for Digital Input Modules | 6      | Yes       | Yes   | Analog Output |

Visual Management

Red Lion's ProducTVity Station is a ready-to-deploy plant floor visual management system. The ProducTVity Station displays real-time Key Performance Indicator (KPI) data and Andon messages on large televisions to improve productivity and efficiency. Ideal for factory floors, processing plants or any place where performance or quality needs to be tracked and monitored, this visual management system lets you easily create sophisticated production scoreboards.



ProducTVity Station  

- > Support for 300+ protocols, up to 15 simultaneous protocols
- > Easily integrates with existing equipment
- > Built-in data logging with time stamping, accessible via CSV format
- > Virtual HMI with web server for remote viewing and control
- > Connects to any LCD or plasma TV providing up to 720P output
- > Synchronization via FTP or Microsoft® SQL server
- > UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER | FUNCTION                 | WEB SERVER WITH VIRTUAL HMI | DISPLAY OUTPUT |
|--------------|--------------------------|-----------------------------|----------------|
| PTV00000     | Visual Management System | WXGA<br>1024 x 768          | 720P           |

PID Controllers

From single to multi-point control, Red Lion has the right proportional-integral-derivative (PID) controller for any application. Our wide range of easy-to-deploy PID controllers offer industry-leading features and reliable performance designed for the most demanding applications.

- > Panel or DIN-rail mountable models
- > Optional modular expansion cards
- > Programmable via Crimson software



Modular Controller Multi-Zone PID Controllers



- > Support for up to 16 hot-swappable modules
- > Built-in data logging with time stamping, accessible via CSV format
- > Three serial and one Ethernet port standard



| MODEL NUMBER | PROTOCOL CONVERSION | DATA LOGGING | WEB SERVER | VIRTUAL HMI       | OPERATING TEMP |
|--------------|---------------------|--------------|------------|-------------------|----------------|
| CSMSTRV2     | Yes                 | -            | -          | -                 | 0° to 50°C     |
| CSMSTRLE     | Yes                 | -            | -          | -                 | 0° to 50°C     |
| CSMSTRSX     | Yes                 | Yes          | Yes        | QVGA (320 x 240)  | 0° to 50°C     |
| CSMSTRGT     | Yes                 | Yes          | Yes        | VGA (640 x 480)   | 0° to 50°C     |
| CSMSTRZR     | Yes                 | Yes          | Yes        | WXGA (1280 x 720) | 0° to 45°C     |

PAX2C 1/8 DIN Advanced Universal PID Controllers



- > Universal process, thermocouple/RTD, voltage and process inputs
- > Programmable dual-line display with units and bar graph
- > Field-installable option cards: HCM, Second analog input/PID controller, 4-20 mA or 0-10 V analog output, relay or solid state outputs
- > Optional communication cards include RS-232, RS-485, DeviceNet and PROFIBUS-DP



| MODEL NUMBER | FUNCTION  | SIZE               | DISPLAY | DISPLAY COLOR     | ANALOG OUTPUT | ALARMS   | COMMUNICATION | POWER |
|--------------|-----------|--------------------|---------|-------------------|---------------|----------|---------------|-------|
| PX2C8H00     | Universal | 1/8 DIN Horizontal | LCD     | Tri-color Backlit | Yes           | Up to 16 | Yes           | AC/DC |
| PX2C8V00     | Universal | 1/8 DIN Vertical   | LCD     | Tri-color Backlit | Yes           | Up to 16 | Yes           | AC/DC |

PID Feature Comparison

| FEATURES               | PAX2C     | T48/P48   | PXU            | MODULAR CONTROLLER | DLC      |
|------------------------|-----------|-----------|----------------|--------------------|----------|
| DIN Size(s)            | 1/8       | 1/16      | 1/16, 1/8, 1/4 |                    |          |
| Mounting               | Panel     | Panel     | Panel          | DIN-Rail           | DIN-Rail |
| Display                | Dual-Line | Dual-Line | Dual-Line      | Virtual            |          |
| Bar Graph on Display   | •         |           |                |                    |          |
| PID Control Zones      | 3*        | 1         | 1              | 32*                | 2        |
| Universal Inputs       | •         |           | •              |                    |          |
| Alarms                 | •         | •         | •              | •                  | •        |
| Protocol Conversion    |           |           |                | •                  |          |
| Built-in Communication | •         | Optional  | Optional       | •                  | •        |
| Expansion Card Slots   | 3         |           |                | 16                 |          |
| Power Input            | AC/DC     | AC or DC  | AC or DC       | DC                 | DC       |

\* Requires expansion modules

T48/P48 1/16 Process and Temperature Controllers



- > 4-20 mA or 0-10 V analog output, relay or solid state outputs
- > Optional RS-485 serial communications
- > Four-digit dual-line display in red/green



P48 Process Input Controllers

| MODEL NUMBER | FUNCTION      | SECOND ANALOG OUTPUT | MAIN CONTROL OUTPUT | COMMS  | POWER |
|--------------|---------------|----------------------|---------------------|--------|-------|
| P4800001     | Process Input | -                    | Analog Output       | -      | AC    |
| P4800011     | Process Input | -                    | Analog Output       | -      | DC    |
| P4810000     | Process Input | -                    | Relay Output        | -      | AC    |
| P4810010     | Process Input | -                    | Relay Output        | -      | DC    |
| P4810101     | Process Input | -                    | Dual Relay Output   | -      | AC    |
| P4810105     | Process Input | -                    | Dual Relay Output   | -      | AC    |
| P4810107     | Process Input | -                    | Dual Relay Output   | RS-485 | AC    |
| P481010A     | Process Input | Yes                  | Dual Relay Output   | -      | AC    |
| P4810111     | Process Input | -                    | Dual Relay Output   | -      | DC    |
| P4810115     | Process Input | -                    | Dual Relay Output   | -      | DC    |
| P4810117     | Process Input | -                    | Dual Relay Output   | RS-485 | DC    |
| P481011A     | Process Input | Yes                  | Dual Relay Output   | -      | DC    |
| P4811100     | Process Input | -                    | Dual Relay Output   | -      | AC    |
| P4811102     | Process Input | -                    | Dual Relay Output   | RS-485 | AC    |
| P4811110     | Process Input | -                    | Dual Relay Output   | -      | DC    |
| P4811112     | Process Input | -                    | Dual Relay Output   | RS-485 | DC    |

Continued



T48 Temperature Input Controllers with Relay Output

| MODEL NUMBER | FUNCTION    | SECOND INPUT OPTION    | SECOND ANALOG OUTPUT | MAIN CONTROL OUTPUT | COMMS  | POWER |
|--------------|-------------|------------------------|----------------------|---------------------|--------|-------|
| T4810000     | Temperature | -                      | -                    | Relay Output        | -      | AC    |
| T4810002     | Temperature | -                      | -                    | Relay Output        | RS-485 | AC    |
| T4810010     | Temperature | -                      | -                    | Relay Output        | -      | DC    |
| T4810101     | Temperature | -                      | -                    | Dual Relay Output   | -      | AC    |
| T4810105     | Temperature | Remote Setpoint Input  | -                    | Dual Relay Output   | -      | AC    |
| T4810106     | Temperature | Heater Current Monitor | -                    | Dual Relay Output   | -      | AC    |
| T4810107     | Temperature | -                      | -                    | Dual Relay Output   | RS-485 | AC    |
| T4810108     | Temperature | Remote Setpoint Input  | -                    | Dual Relay Output   | RS-485 | AC    |
| T4810109     | Temperature | Heater Current Monitor | -                    | Dual Relay Output   | RS-485 | AC    |
| T481010A     | Temperature | -                      | Yes                  | Dual Relay Output   | -      | AC    |
| T4810111     | Temperature | -                      | -                    | Dual Relay Output   | -      | DC    |
| T4810115     | Temperature | Remote Setpoint Input  | -                    | Dual Relay Output   | -      | DC    |
| T4810116     | Temperature | Heater Current Monitor | -                    | Dual Relay Output   | -      | DC    |
| T4810117     | Temperature | -                      | -                    | Dual Relay Output   | RS-485 | DC    |
| T4810118     | Temperature | Remote Setpoint Input  | -                    | Dual Relay Output   | RS-485 | DC    |
| T4810119     | Temperature | Heater Current Monitor | -                    | Dual Relay Output   | RS-485 | DC    |
| T481011A     | Temperature | -                      | Yes                  | Dual Relay Output   | -      | DC    |
| T4811000     | Temperature | -                      | -                    | Dual Relay Output   | -      | AC    |
| T4811100     | Temperature | -                      | -                    | 3 Relay Output      | -      | AC    |
| T4811102     | Temperature | -                      | -                    | 3 Relay Output      | RS-485 | AC    |
| T4811103     | Temperature | Remote Setpoint Input  | -                    | 3 Relay Output      | -      | AC    |
| T4811104     | Temperature | Heater Current Monitor | -                    | 3 Relay Output      | -      | AC    |
| T4811110     | Temperature | -                      | -                    | 3 Relay Output      | -      | DC    |
| T4811112     | Temperature | -                      | -                    | 3 Relay Output      | RS-485 | DC    |
| T4811113     | Temperature | Remote Setpoint Input  | -                    | 3 Relay Output      | -      | DC    |
| T4811114     | Temperature | Heater Current Monitor | -                    | 3 Relay Output      | -      | DC    |

T48 Temperature Input Controllers with Logic Output

| MODEL NUMBER | FUNCTION    | SECOND INPUT OPTION    | MAIN CONTROL OUTPUT | COMMS  | POWER |
|--------------|-------------|------------------------|---------------------|--------|-------|
| T4820000     | Temperature | -                      | Logic               | -      | AC    |
| T4820010     | Temperature | -                      | Logic               | -      | DC    |
| T4820201     | Temperature | -                      | Dual Logic Output   | -      | DC    |
| T4820205     | Temperature | Remote Setpoint Input  | Dual Logic Output   | -      | AC    |
| T4820206     | Temperature | Heater Current Monitor | Dual Logic Output   | -      | AC    |
| T4820208     | Temperature | Remote Setpoint Input  | Dual Logic Output   | RS-485 | AC    |
| T4820209     | Temperature | Heater Current Monitor | Dual Logic Output   | RS-485 | AC    |
| T4820211     | Temperature | -                      | Dual Logic Output   | -      | DC    |
| T4820215     | Temperature | Remote Setpoint Input  | Dual Logic Output   | -      | DC    |
| T4820216     | Temperature | Heater Current Monitor | Dual Logic Output   | -      | DC    |
| T4820218     | Temperature | Remote Setpoint Input  | Dual Logic Output   | RS-485 | DC    |
| T4820219     | Temperature | Heater Current Monitor | Dual Logic Output   | RS-485 | DC    |
| T4821000     | Temperature | -                      | Logic/Relay         | -      | AC    |
| T4821100     | Temperature | -                      | Logic/Dual Relay    | -      | AC    |
| T4821102     | Temperature | -                      | Logic/Dual Relay    | RS-485 | AC    |
| T4821103     | Temperature | Remote Setpoint Input  | Logic/Dual Relay    | -      | AC    |
| T4821104     | Temperature | Heater Current Monitor | Logic/Dual Relay    | -      | AC    |
| T4821110     | Temperature | -                      | Logic/Dual Relay    | -      | DC    |
| T4821112     | Temperature | -                      | Logic/Dual Relay    | RS-485 | DC    |
| T4821113     | Temperature | Remote Setpoint Input  | Logic/Dual Relay    | -      | DC    |
| T4821114     | Temperature | Heater Current Monitor | Logic/Dual Relay    | -      | DC    |
| T4832200     | Temperature | -                      | Triac/Dual Logic    | -      | AC    |

PXU Basic Universal PID Controllers



- > Universal inputs (temperature or process)
- > 4-20 relay or solid state outputs
- > Available in 1/4, 1/8 and 1/16 DIN models
- > Optional RS-485 communication



| MODEL NUMBER | DIN SIZE | MAIN CONTROL       | SECONDARY CONTROL | RS-485 COMMS | USER INPUTS | POWER |
|--------------|----------|--------------------|-------------------|--------------|-------------|-------|
| PXU309B0     | 1/16 DIN | 4 to 20 mA         | -                 | -            | -           | DC    |
| PXU31A20     | 1/16 DIN | 4 to 20 mA         | Relay             | Yes          | Yes         | AC    |
| PXU31AB0     | 1/16 DIN | 4 to 20 mA         | Relay             | Yes          | Yes         | DC    |
| PXU11A20     | 1/16 DIN | Dual Relay Output  | Relay             | Yes          | Yes         | AC    |
| PXU11AB0     | 1/16 DIN | Dual Relay Output  | Relay             | Yes          | Yes         | DC    |
| PXU21A20     | 1/16 DIN | Logic/Relay        | Relay             | Yes          | Yes         | AC    |
| PXU21AB0     | 1/16 DIN | Logic/Relay        | Relay             | Yes          | Yes         | DC    |
| PXU10020     | 1/16 DIN | Relay Output       | -                 | -            | -           | AC    |
| PXU100B0     | 1/16 DIN | Relay Output       | -                 | -            | -           | DC    |
| PXU20020     | 1/16 DIN | Solid State Output | -                 | -            | -           | AC    |
| PXU209B0     | 1/16 DIN | Solid State Output | -                 | -            | -           | DC    |
| PXU11A30     | 1/8 DIN  | Dual Relay Output  | Relay             | Yes          | Yes         | AC    |
| PXU11AC0     | 1/8 DIN  | Dual Relay Output  | Relay             | Yes          | Yes         | DC    |
| PXU21A30     | 1/8 DIN  | Logic/Relay        | Relay             | Yes          | Yes         | AC    |
| PXU21AC0     | 1/8 DIN  | Logic/Relay        | Relay             | Yes          | Yes         | DC    |
| PXU10030     | 1/8 DIN  | Relay Output       | -                 | -            | -           | AC    |
| PXU100C0     | 1/8 DIN  | Relay Output       | -                 | -            | -           | DC    |
| PXU20030     | 1/8 DIN  | Solid State Output | -                 | -            | -           | AC    |
| PXU11A50     | 1/4 DIN  | Dual Relay Output  | Relay             | Yes          | Yes         | AC    |
| PXU11AE0     | 1/4 DIN  | Dual Relay Output  | Relay             | Yes          | Yes         | DC    |

DLC Dual Loop DIN-Rail PID Controllers



- > Dual independent inputs
- > Support for two alarms per channel
- > Built-in MOSFETs capable of switching up to 1 Amp DC



| MODEL NUMBER | FUNCTION                 | UNIVERSAL INPUT(S) | DUAL ANALOG OUTPUTS |
|--------------|--------------------------|--------------------|---------------------|
| DLC00001     | Dual Loop Controller     | Yes                | -                   |
| DLC01001     | Dual Loop Controller     | Yes                | Yes                 |
| DLC11001     | Dual Setpoint Controller | Yes                | Yes                 |



Protocol Conversion & Data Acquisition

With support for more than 300 industrial protocols, Red Lion helps devices from different manufacturers communicate. Our Crimson software uses drag-and-drop mapping functionality to seamlessly integrate data collection across disparate devices and protocols.

- > Support for more than 300+ industrial protocols
- > Easily configured using Crimson software
- > Offers a variety of physical communication ports



Data Station Plus Protocol Converters  

- > Support for 300+ protocols, up to 12 simultaneous conversions
- > Three serial and one Ethernet port standard
- > Send email and SMS upon alarm status
- > Virtual HMI with web server for remote viewing and control
- > Built-in data logging with time stamping, available via CSV format



| MODEL NUMBER | PROTOCOL CONVERSION | DATA LOGGING | WEB SERVER | VIRTUAL HMI | OPERATING TEMP |
|--------------|---------------------|--------------|------------|-------------|----------------|
| DSPLE000     | Yes                 | -            | -          | -           | 0° to 50°C     |
| DSPLE001     | Yes                 | -            | -          | -           | -20° to 70°C   |
| DSPSX000     | Yes                 | Yes          | Yes        | QVGA        | 0° to 50°C     |
| DSPSX001     | Yes                 | Yes          | Yes        | QVGA        | -20° to 70°C   |
| DSPGT000     | Yes                 | Yes          | Yes        | VGA         | 0° to 50°C     |
| DSPGT001     | Yes                 | Yes          | Yes        | VGA         | -20° to 70°C   |
| DSPZR000     | Yes                 | Yes          | Yes        | WXGA        | 0° to 45°C     |

RTUs & I/O Modules

Red Lion's Sixnet series of RTUs & I/O Modules provide reliable, simple and secure remote monitoring for sites located in harsh environments. Offering the lowest cost per I/O point and rugged environmental ratings, these solutions provide robust sensor or field data collection and communication.

- > Built-in Ethernet connectivity
- > UL Class I, Division 2 Listed; ABS, CE and CSA certified
- > Easily scalable to fit any application



Industrial RTUs   

- > Built-in data logging
- > Programmed via IsaGRAF according to IEC61131
- > Non-proprietary Linux® OS supports custom programming
- > Communicates with Modbus, Modbus TCP/UDP, DNP3, SNMP, IEC60870-5 and Sixnet UDR protocols
- > Wide -40° to 70°C operating temperature range
- > All models UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER   | ETHERNET PORTS | RS-232 PORTS | RS-485 PORTS | DI | DO | AI | AO | NVRAM | FLASH | DRAM |
|----------------|----------------|--------------|--------------|----|----|----|----|-------|-------|------|
| ST-IPM-6350    | 5              | 2            | 1            | -  | -  | -  | -  | 2M    | 128M  | 64M  |
| VT-MIPM-245-D  | 1              | 2            | 2            | 12 | 4  | 8  | 2  | 512K  | 64M   | 32M  |
| VT-MIPM-135-D  | 1              | 2            | 1            | 12 | 8  | 6  | -  | 512K  | 64M   | 32M  |
| VT-IPM2M-213-D | 1              | 1            | 1            | 12 | 4  | 8  | 2  | 512K  | 32M   | 32M  |
| VT-IPM2M-113-D | 1              | 1            | 1            | 12 | 4  | 8  | -  | 512K  | 32M   | 32M  |
| VT-UIPM-431-H  | 1              | 2            | 1            | 8  | 4  | 2  | -  | 512K  | 16M   | 16M  |





- > Features wide variety of I/O types
- > Powerful communications featuring configurable two port switch
- > Support for Modbus/TCP, Sixnet UDR and other industrial protocols
- > -40° to 75°C operating temperature range
- > All models UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER  | FUNCTION                                | HIGH-SPEED COUNTER | DI | DO | AI     | AO | PoE CAPABLE |
|---------------|-----------------------------------------|--------------------|----|----|--------|----|-------------|
| E2-MIX20884-D | 32 Mixed Inputs/Outputs                 | 4 (Isolated)       | 20 | 8  | 8      | 4  | -           |
| E2-MIX24880-D | 32 Mixed Inputs/Outputs                 | 2 (One Isolated)   | 24 | 8  | 8      | -  | -           |
| E2-MIX24882-D | 34 Mixed Inputs/Outputs                 | 4                  | 24 | 8  | 8      | 2  | -           |
| E2-32DI24-D   | 32 24V Digital Inputs                   | 1 (Isolated)       | 32 | -  | -      | -  | -           |
| E2-16DI24-D   | 16 24V Digital Inputs                   | 1 (Isolated)       | 16 | -  | -      | -  | -           |
| E2-16DIAC-D   | 16 120VAC Digital Inputs                | -                  | 16 | -  | -      | -  | -           |
| E2-32DO24-D   | 32 24V Digital Outputs                  | -                  | -  | 32 | -      | -  | -           |
| E2-16DO24-D   | 16 24V Digital Outputs                  | -                  | -  | 16 | -      | -  | -           |
| E2-16DORLY-D  | 16 Digital Output Relays                | -                  | -  | 16 | -      | -  | -           |
| E2-16ISO20M-D | 16 Isolated Analog Inputs (4-20mA)      | -                  | -  | -  | 16     | -  | -           |
| E2-32AI20M-D  | 32 20mA Analog Inputs                   | -                  | -  | -  | 32     | -  | -           |
| E2-32AI10V-D  | 32 10VDC Analog Inputs                  | -                  | -  | -  | 32     | -  | -           |
| E2-16AI20M-D  | 16 Analog Inputs (4-20mA)               | -                  | -  | -  | 16     | -  | -           |
| E2-16AI-8AO-D | 16 24V Digital Inputs/Analog Outputs    | -                  | -  | -  | 16     | 8  | -           |
| E2-8AO20M-D   | 8 Analog Outputs                        | -                  | -  | -  | -      | 8  | -           |
| E2-16ISOTC-D  | 16 Isolated Thermocouple Inputs         | -                  | -  | -  | 16TC   | -  | -           |
| E2-10RTD-D    | 10 RTD Inputs                           | -                  | -  | -  | 10 RTD | -  | -           |
| EB-MIX24880-D | 32 Mixed Inputs/Outputs, PoE            | 2 (One Isolated)   | 24 | 8  | 8      | -  | Yes         |
| EB-MIX24882-D | 34 Mixed Inputs/Outputs , PoE           | 4                  | 24 | 8  | 8      | 2  | Yes         |
| EB-32DI24-D   | 32 Digital Inputs, PoE                  | 1 (Isolated)       | 32 | -  | -      | -  | Yes         |
| EB-16DI24-D   | 16 Isolated Digital Inputs, PoE         | 1 (Isolated)       | 16 | -  | -      | -  | Yes         |
| EB-32DO24-D   | 32 Digital Output, PoE                  | -                  | -  | 32 | -      | -  | Yes         |
| EB-16DO24-D   | 16 Isolated Digital Outputs, PoE        | -                  | -  | 16 | -      | -  | Yes         |
| EB-16ISO20M-D | 16 Isolated Analog Inputs (4-20mA), PoE | -                  | -  | -  | 16     | -  | Yes         |
| EB-32AI20M-D  | 32 Analog Inputs (4-20mA), PoE          | -                  | -  | -  | 32     | -  | Yes         |
| EB-32AI10V-D  | 32 Analog Inputs (0-10V), PoE           | -                  | -  | -  | 32     | -  | Yes         |
| EB-16AI20M-D  | 16 Analog Inputs (4-20mA), PoE          | -                  | -  | -  | 16     | -  | Yes         |
| EB-16AI-8AO-D | 16 Mixed Analog Inputs/Outputs, PoE     | -                  | -  | -  | 16     | 8  | Yes         |
| EB-8AO20M-D   | 8 4-20mA Analog Outputs, PoE            | -                  | -  | -  | -      | 8  | Yes         |
| EB-16ISOTC-D  | 16 Isolated Thermocouple Inputs, PoE    | -                  | -  | -  | 16TC   | -  | Yes         |
| EB-10RTD-D    | 10 RTD Inputs, PoE                      | -                  | -  | -  | 10 RTD | -  | Yes         |

## Signal Conditioners

Red Lion provides a broad selection of signal conditioners for frequency, temperature and process applications. Our signal conditioners range from dedicated to universal models capable of accepting over 100 inputs, which enable these units to be used almost anywhere.

- > Support for over 100 input/output combinations
- > Plug-and-play deployment
- > Offers frequency, process and temperature conversion



### IFMA Frequency to Analog Converters



- > Accepts frequency input and outputs analog voltage/current
- > Rotary switch configuration
- > Support for three-way isolation



| MODEL NUMBER | FUNCTION                                 |
|--------------|------------------------------------------|
| IFMA0035     | Frequency to Analog Converter DC Powered |
| IFMA0065     | Frequency to Analog Converter AC Powered |

### IFMR Speed Switches



- > Accepts frequency input and outputs over/under/zero speed detection
- > Built-in single relay output
- > Support for alarm latching and resetting



| MODEL NUMBER | FUNCTION                |
|--------------|-------------------------|
| IFMR0036     | Speed Switch DC Powered |
| IFMR0066     | Speed Switch AC Powered |



IRMA RTD to Analog Converters



- > Accepts two, three or four wire RTD input, outputs 4 to 20 mA
- > Loop powered models
- > Sensor breakdown detection



| MODEL NUMBER | FUNCTION                                               |
|--------------|--------------------------------------------------------|
| IRMA2003     | Intelligent RTD Module with Analog Output Loop Powered |
| IRMA3035     | Intelligent RTD Module with Analog Output DC Powered   |

ITMA Thermocouple to Analog Converters



- > Accepts thermocouple or millivolt input, outputs 4 to 20 mA
- > Ten-position DIP switch for configuration
- > Thermocouple breakdown detection



| MODEL NUMBER | FUNCTION                                                 |
|--------------|----------------------------------------------------------|
| ITMA2003     | Intelligent Thermocouple with Analog Output Loop Powered |
| ITMA3035     | Intelligent Thermocouple with Analog Output DC Powered   |

IAMS Universal Signal Conditioner



- > Universal power and input
- > Three-way signal isolation
- > Easy programming with removable configuration display module



| MODEL NUMBER | FUNCTION                           |
|--------------|------------------------------------|
| IAMS0001     | IAMS with Analog Output            |
| IAMS0010     | IAMS with Dual Setpoint            |
| IAMS0011*    | IAMS with Analog and Dual Setpoint |
| PGMMOD00**   | Programming Display Module         |

\* Not CE approved  
\*\* Not CE approved or UL Listed

IAMA Universal Signal Conditioner



- > Features over 100 analog I/O combinations
- > Provides linear or square root extraction
- > Three-way signal isolation

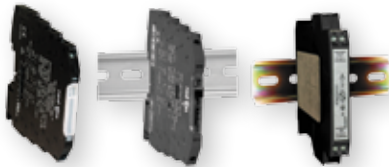


| MODEL NUMBER | FUNCTION                                         |
|--------------|--------------------------------------------------|
| IAMA3535     | Linear Universal Signal Conditioning Module      |
| IAMA6262     | Square Root Universal Signal Conditioning Module |

IAMA0006, AIMI & AFCM Slimline Signal Converters



- > Small form-factor signal conditioner
- > Converts process input signals
- > Ultra-slim design
- > Loop powered models



| MODEL NUMBER | FUNCTION                                           |
|--------------|----------------------------------------------------|
| IAMA0006     | Universal with 35 Input/Output Conversions         |
| AIMI0202*    | 4 to 20 mA Loop Powered Isolator                   |
| AFCM0000     | Voltage/Current to Frequency Conversion DC Powered |

\* Not UL Recognized

Watchdog Relay Hardware Monitor



- > Rugged hardware-based solution
- > Heartbeat monitoring for PLCs, RTUs and controllers
- > Automatically powers down systems when malfunction detected
- > UL Class 1, Division 2 Listed for hazardous locations



| MODEL NUMBER | FUNCTION                             |
|--------------|--------------------------------------|
| 6HBWDOG1     | Heartbeat Watchdog with Form C Relay |

Certifications & Approvals



**UL Listed** - UL has tested representative samples of the product and determined that it meets UL requirements. These requirements are based primarily on ULs published and nationally recognized Standards for Safety. (Underwriters Laboratories, [www.ul.com](http://www.ul.com), 2015)



**IECEx** - The objective of the IECEx system is to facilitate international trade in equipment and services for use in explosive atmospheres, while maintaining the required level of safety. (IEC IECEx, [www.iecex.com](http://www.iecex.com), 2015)



**UL Recognized Component** - The evaluation of components or materials intended for use in a complete product or system. (Underwriters Laboratories, [www.ul.com](http://www.ul.com), 2015)



**CE** - The CE marking indicates a product's compliance with EU legislation and so enables the free movement of products within the European market. (European Commission, [www.ec.europa.eu](http://www.ec.europa.eu), 2014)



**ABS** - The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the product. (ABS, [ww2.eagle.org](http://ww2.eagle.org), 2015)



**ATEX** - The equipment and protective systems intended for use in potentially explosive atmospheres (ATEX) Directive 94/9/EC provides the technical requirements to be applied and the relevant conformity assessment procedures before placing this equipment on the European market. (European Commission, [www.ec.europa.eu](http://www.ec.europa.eu), 2014)



**FM** - FM Approvals is an international leader in third-party certification and approval of commercial and industrial products. (FM Global, [www.fmglobal.com](http://www.fmglobal.com), 2015)

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