

# G3 Series HMI

Web-Enabled Graphic Operator Interface Panels



## Advanced HMIs with the most features:

- Convert over 200 protocols
- Built-in web server
- On-board data logging
- Two Ethernet ports
- Two USB host ports
- Remote monitoring and control
- Software and support included



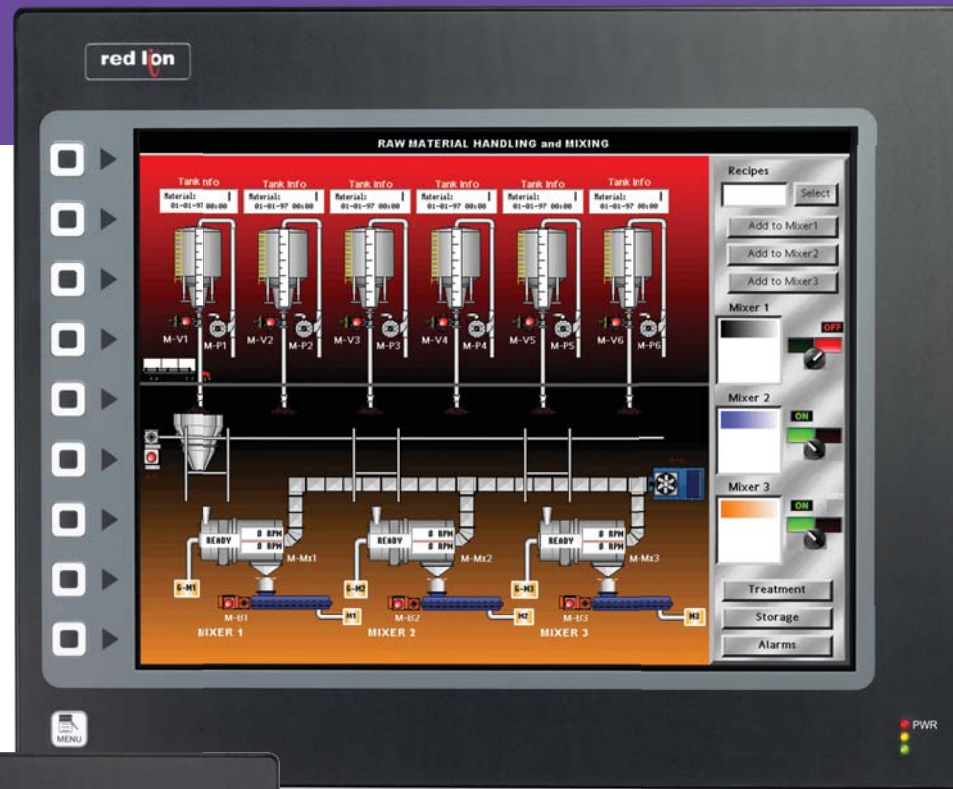
**red ion**<sup>®</sup>  
INSIGHT ENABLED

# G3 Series HMIs. The most features. The most comms.

## Make the factory floor speak out.

Red Lion is excited to release 11 new operator interface models, with features suggested by our customers. These models provide isolated serial ports for protection in rugged electrical environments.

The two USB hosts allow for barcode readers, USB thumb drives, keyboards and more to be attached to the G3 HMIs. Optional dual Ethernet ports are also available to separate the factory network from the enterprise level.



G310 10" Operator Interface Touchscreen



G306K 5.6" Touchscreen

G304K 4.3" Touchscreen

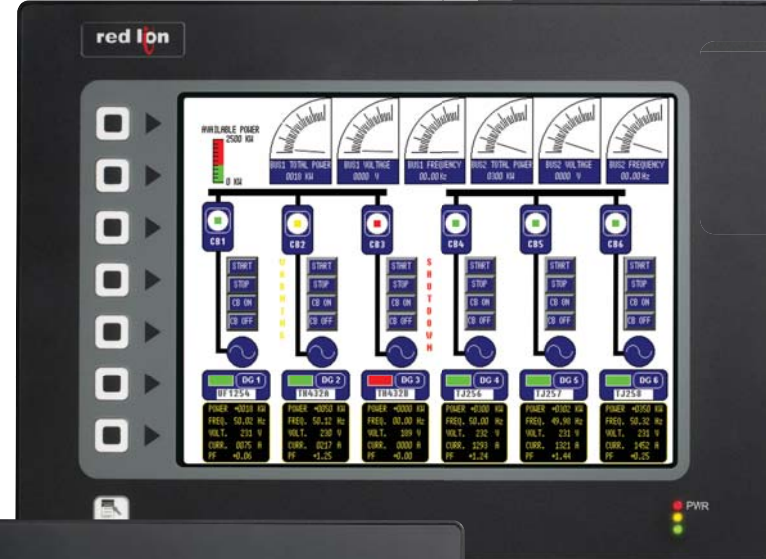
Don't need data logging?  
Check out the G3 Kadet HMI series:  
impressive features and value for OEMs  
and machine control. See page 7.



G303 3" LCD Interface Terminal



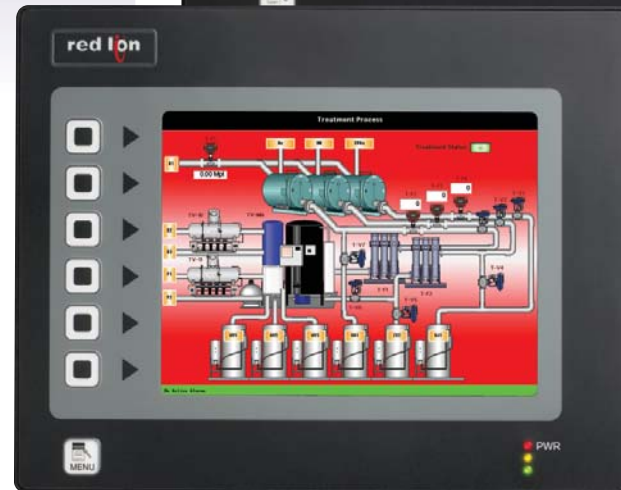
G306 6" Operator Interface Touchscreens



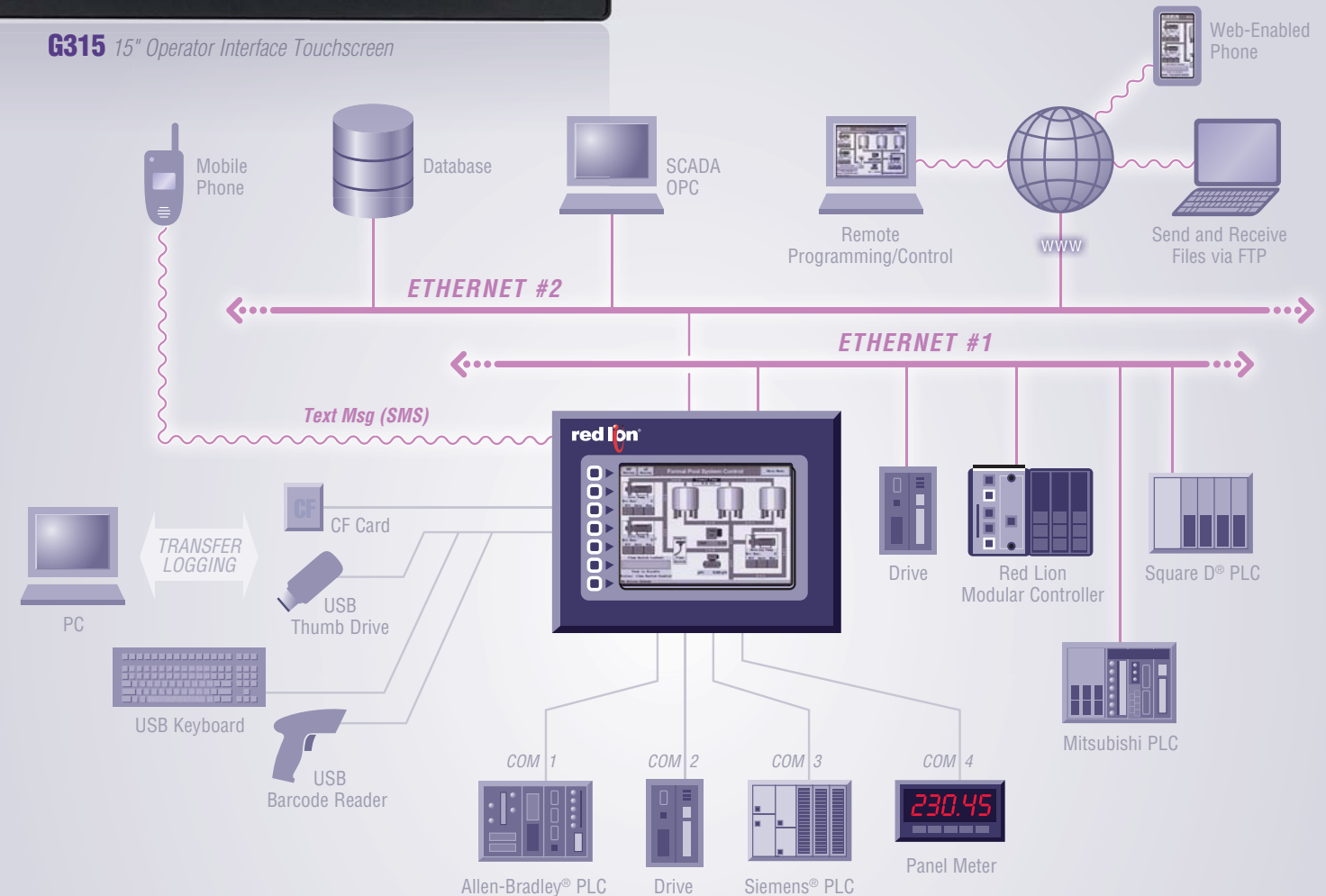
G315 15" Operator Interface Touchscreen

## G3 Series standard features include:

- Protocol Converter supports over 200 different industrial protocols
- Data logging
- Web and FTP Server for remote access
- Minimum three serial ports (expandable)
- USB synchronization of database and log files
- Up to two 10 Base-T/100 Base-TX Ethernet ports
- CompactFlash® slot for database/recipe storage and collection of logged data
- Crimson software included



G308 8" Operator Interface Touchscreens

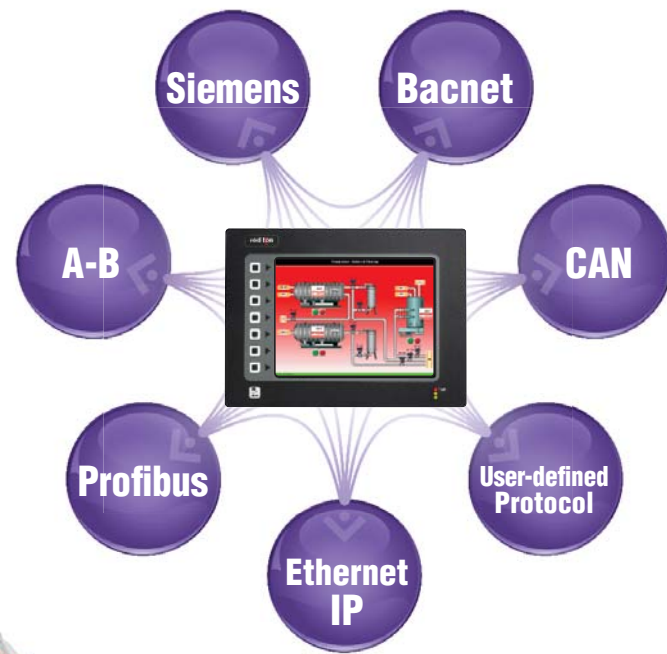


Red Lion's **G3 HMI Series** is not only the first to communicate with a minimum of thirteen devices simultaneously, but lets you access, monitor and control these devices remotely—from across your network or around the globe.

# The only HMI that web-enables any device for remote operation across your LAN or the Internet.

## Protocol Conversion

- Convert over 200 major industrial protocols
- Gateway from any protocol to another
- Drag-and-drop data mapping via Crimson®
- Easily manage multi-vendor environments



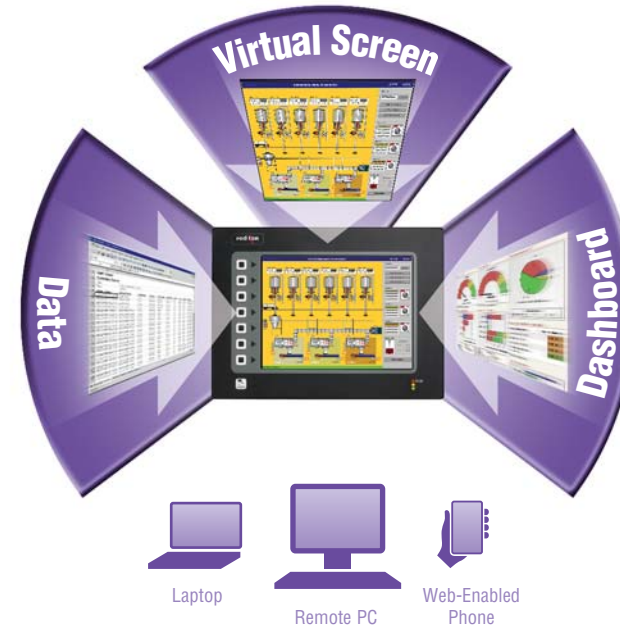
## Data Logging

- Acquire data at user-defined rates from any or all connected devices into a single file
- Data stored in open CSV file format (Excel compatible)
- Collect, store, display data
- Email or FTP logged files



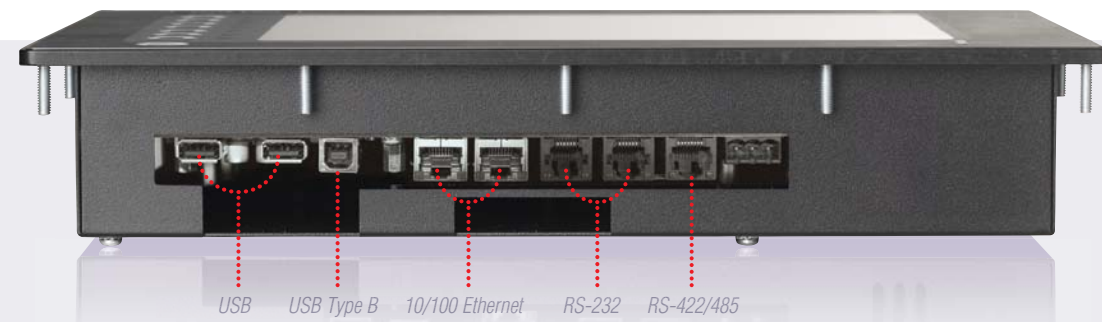
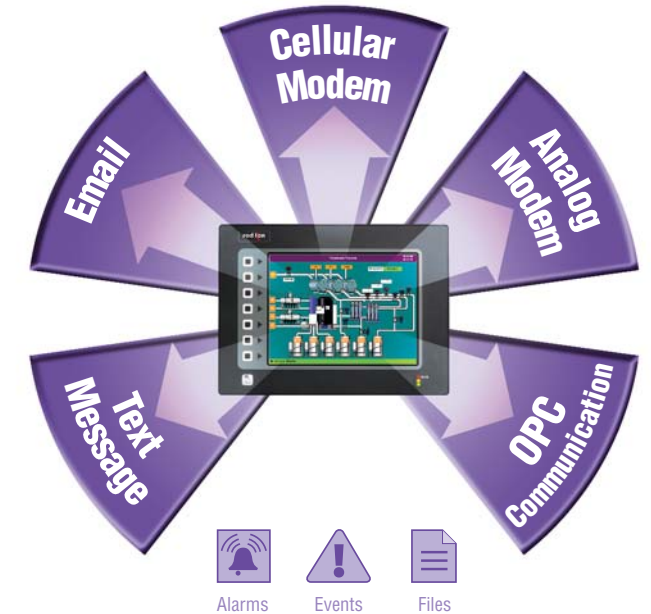
## Web serving

- Web and network-enable any and all connected devices
- Auto-uploads data to FTP, web pages and/or dashboards
- Display same as panel, just tags or custom pages



## Remote Access

- Securely monitor, access or control all system functions
- Upload/download databases, recipes or log files
- Email or text message alarm and event notifications
- Pass through programming to other devices



## Communicate.

Communicating with over 200 different protocols, the Red Lion G3 HMI Series is the most powerful communications platform available today. G3 Series HMIs easily manage multi-vendor devices and provide the ability to web- and network-enable these different hardware types via the most on-board comms and integrated Ethernet. Choose the best-in-class PLC, drives, PCs, PID controllers, etc. from your vendor of choice and control them all from a single point—the G3 will make sure they communicate seamlessly with each other. All connected devices come to life—even serial devices become rejuvenated providing information over Ethernet.

- One RS-422/485 port and two RS-232 ports are standard on all models
- Dual Ethernet port provides communications separately to the factory floor and enterprise
- Simultaneous communication with a minimum of 13 different protocols (expandable)
- Optional expansion cards to add either two serial ports, DeviceNet™, CANopen, J1939, PROFIBUS DP™ or a cellular modem

## Collect.

With the installed CompactFlash® card, USB port and web/FTP upload connectivity, data acquisition and transfer capabilities are endless with the G3 Series. Data can be acquired from any or all connected devices and compiled into a single CSV-formatted file, where it can be stored, displayed, emailed, uploaded to an FTP or posted to custom web pages. The built-in web server can be used to expose system data via a standard web browser, allowing remote access to diagnostic information or to the values recorded by the data logger.

- Log tags at user-programmable rates with automatic time/date stamp
- Download, upload and remotely access recipes, data and configuration files from the CF card or a USB drive;
- Automatically synchronize logged data between the G3 and remote FTP site
- Upload data values to your custom web page
- Create batch logs or record data from each batch run, separately for each plant shift
- Store security logs to capture user ID when performing tasks and capture alarm event data
- Create customized data screens accessible by password to privately provide selected data for users

## Connect.

The ability to monitor only or securely facilitate full control from your remote computer or web enabled mobile phones and devices is standard.

- Standard web browsers provide remote virtual display and control with screens identical to those on the G3
- GSM cellular modem option card lets the G3 dial out with text msg or email alerts/alarms to staff facilitating remote connectivity virtually anywhere
- Browse data or screens, extract or view files from the CompactFlash® card, or change the program remotely
- Use pass through programming for connected devices that don't typically allow remote programming

Multi-vendor device environments with different protocols communicate seamlessly with G3 Series HMIs

# Crimson® 3.0 The best interface software just got better.



## Configure.

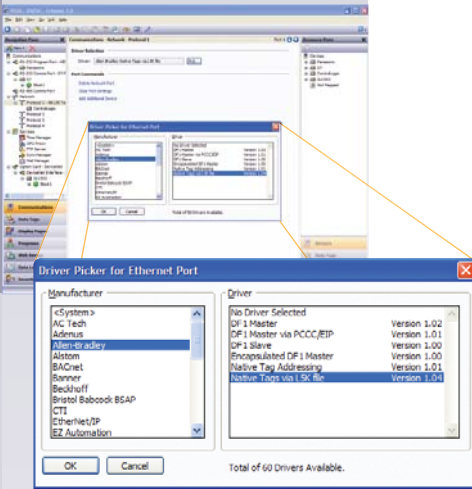
**Red Lion Crimson® software gives users unprecedented operator interface configuration and control.**

Red Lion's powerful and universal Crimson 3.0 software is a remarkable programming platform that gives the G3 Series a number of exclusive functions. And unlike competitive HMIs that charge you extra for cumbersome proprietary software, with Crimson the set up of even sophisticated applications—configuring communications protocols, defining data tags and creating a user interface—is easier and virtually self-explanatory.

Here are just a few of the exclusive features and capabilities included with Crimson:

- An extensive library of point-and-click device drivers to quickly establish communications between the G3 and any device
- Built-in gateway and protocol converter to Ethernet-enable any connected device
- Multi-lingual capability with support for thousands of characters used in formats like Cyrillic or Thai that lets OEMs use a single database for global markets
- Complete library of over 5,000 industrial graphics in over 60 different categories
- Built-in emulator to test user interface, data logging and even the web server
- Full-featured C-type syntax programming environment to extend capabilities and use advanced math, local variables, pass parameters, calls, return values, etc.
- Flexible, direct access to many internal G3 Series features such as: read/write to the CompactFlash® card, manage serial ports, create TCP/IP connections to extract data from web sites, or create custom interfaces to unique products

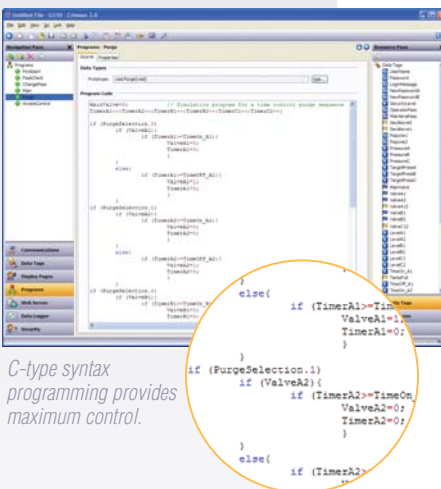
**Best of all, Crimson is included.** As are software updates, support, cabling instructions and communication drivers. In fact, if a specific device driver does not exist, Red Lion will write one for you. Free online updates allow you to keep your version of Crimson current with the most up-to-date features. New updates include enhanced functionality, product support, drivers and firmware.



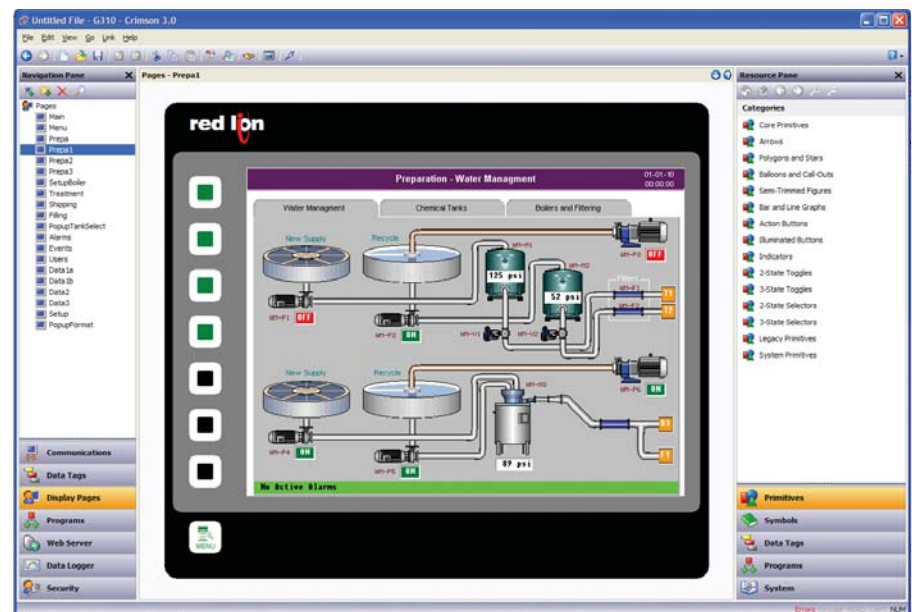
Choose from over 200 drivers.



Over 5000 graphics make configuring your application quick and easy.



C-type syntax programming provides maximum control.



# G3 Series. The best valued, full-featured HMIs.

## G3 Series HMIs

For less than many stripped-down HMIs, you can add the powerful capabilities and ease-of-use found only in the G3 Series. G3 HMIs come standard with three serial comms, Ethernet, protocol converter, USB, and CompactFlash® slot. And at no extra charge, you get full-featured Crimson® software with drag-and-drop configuration tools and industry's most flexible, intuitive and powerful programming environment.



**G303M, G303S**



**G306A, G306M, G306MS**



**G308A2, G308C1**



**G310C2, G310R2, G310S2**



**G315C2**

<b>Display Type</b>	3.2" Graphical Monochrome LCD with yellow backlight	5.7" TFT Active Matrix, 256-color QVGA display Monochrome Models Available	G308A: 8.4" TFT 32K-color G308C: 7.5" TFT 32K-color	10.4" TFT 32K-color G310C/G310S: VGA G310R: SVGA	32K Color XGA LCD display
<b>Sunlight Readable</b>	G303S Only	G306MS Only	No	G310S Only	No
<b>Keypad</b>	Programmable 32-key membrane	Programmable 5-key membrane	Programmable 7-key membrane	Programmable 8-key membrane	Programmable 10-key membrane
<b>Resolution</b>	128 x 64 pixels	320 x 240 pixels	640 x 480 pixels	G310C, G310S: 640 x 480 pixels G310R: 800 x 600 pixels	1024 X 768 pixels
<b>Comms Ports</b>	Two RS-232, one RS-422/485 standard; expandable with optional card (Isolated ports except in G303, G306A, G306M, G306MS, G308C)				Two RS-232, two RS-422/485 (expandable) Isolated ports
<b>Ethernet</b>	10 Base-T/100 Base-TX (G3xxx230 series have 2 ports)				
<b>CompactFlash Slot</b>	Yes				
<b>USB Device and USB Host</b>	USB Device Only	USB Device Only	G308A: Yes G308C: USB Device Only	Yes	Yes
<b>Power Supply</b>	24 VDC +/-20%				
<b>Dimensions</b>	5.85" x 7.45" x 2.1" (148.6 x 189.2 x 52 mm)	7.08" x 8.83" x 2.3" (179.8 x 224.3 x 58 mm)	8.18" x 10.32" (207.8 x 262 mm) G308A Depth: 2.9" (73 mm) G308C Depth: 2.46" (63 mm)	9.50" x 12.83" x 2.45" (241.3 x 325.8 x 62 mm)	13.0" x 16.0" x 2.8" (330.2 x 406.4 x 71.5 mm)
<b>Protocol Conversion</b>	Yes	Yes	Yes	Yes	Yes
<b>Data Logging</b>	User-programmable logging rates with time/date stamp and security management; data synchronization, PLC and alarm triggering; CSV file format				
<b>Web/FTP Server</b>	Remote access and control, access to logged data via FTP or web browser; pass-through programming; notification and alarms; automatic HTML page population				
<b>Software</b>	Free Red Lion Crimson® software with free upgrades and support; drag-and-drop data mapping, free device drivers, multi-language support, 4000+ graphics library				
<b>Optional Cards</b>	CANopen, J1939, DeviceNet™, PROFIBUS DP™, RS-232/485 Expansion, GSM/GPRS Modem				
<b>Ratings</b>	NEMA 4X/IP66				
<b>Certifications</b>	UL Class I, Div 2				

## G3 Kadet™ Series HMIs

Born from the G3 series, the value of the G3 Kadet™ is unrivaled. G3 Kadet HMIs are perfect for many applications that don't require data logging, yet offer the high performance and many features of the G3 series.



**G304K**



**G306K**

4.3" TFT 256-color HD1080/16 display	5.6" TFT 256-color QVGA display
N/A	
Touchscreen only	
480 x 272 pixels	320 x 234 pixels
One RS-232, one RS-232/422/485	One RS-232, two RS-232/422/485
N/A	10 Base-T
No	Yes
No	No
12-28 VDC	12-24 VDC
4.016" x 5.039" x 1.262" (102 x 128 x 32 mm)	5.91" x 8.03" x 1.57" (150 x 204 x 40 mm)
Yes	Yes
N/A	
N/A	
Free Red Lion Crimson® software with free upgrades and support	
N/A	
NEMA 4/IP65	
UL Listed	

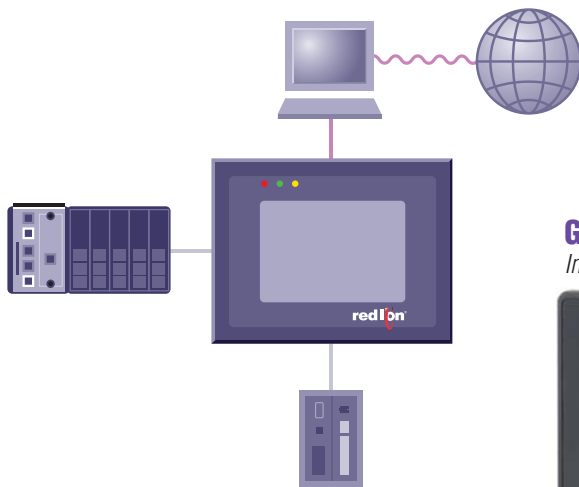


### Optional G3 Expansion Cards:

- CANopen (model G3CN)
- RS-232/485 (one each additional isolated port; model G3RS)
- DeviceNet™ (model G3DN)
- PROFIBUS™ DP™ (model G3PB)
- GSM/GPRS Cellular Modem (model G3GSM)
- J1939



# G3 Kadet™ . Essential features. Exceptional value.



**G304K** 4.3" Operator Interface Touchscreen



**G306K** 5.6" Operator Interface Touchscreen



*The G3 Kadet HMI series: impressive features and value for OEMs and machine control.*

## Touchscreen HMIs that strike the perfect balance of advanced features and value.

The G3 Kadet™ Series offers a host of functional interface and connectivity features for applications where FTP access, data logging and web server capabilities are not needed. Based on the G3 Series with many of the same capabilities, the G3 Kadet offers far more features than conventional HMIs, providing an advanced interface that is ideal for OEMs, discrete machinery and process machinery.

## The right fit for many applications.

Available in 4" (4.3") and 6" (5.6") models, the G3 Kadet Series offers the same protocol conversion benefits as the original G3, with multiple serial ports, drag-and-drop configuration via Crimson® software, port sharing capabilities, and integrated Ethernet on the larger models allowing simultaneous communications with up to seven device types including PLCs, PCs, drives, PID controllers and more.

## Value other HMIs can't touch.

The compact 4" G3 Kadet HMI offers a bright color TFT display that shines above any other product in its class. With two serial ports capable of RS-232, RS-485 and RS-422, this model breathes new life into serial devices. When a larger display is desired, consider the 6" G3 Kadet models. With the same serial port configuration as the 4" model, this powerful HMI also offers integrated 10 Base-T Ethernet, providing four additional device types—letting you connect a total of seven different device types. As with the original G3 Series HMIs, these models support over 200 different protocols. The G3 Kadet Series touchscreens offer a host of innovative features and capabilities you won't even find in panels costing hundreds more. It's the most advanced, best valued HMI in its class.

	G3 Kadet	G3 HMI
RS-232 Port	✓	✓
RS-485/422 Port	✓	✓
Ethernet	✓*	✓
Programs with Crimson®	✓	✓
C-Type user programming	✓	✓
Protocol Converter	✓	✓
CompactFlash® programming	✓*	✓
USB program download		✓
Keypads		✓
Log Data		✓
FTP		✓
Web Server		✓
Expansion Cards		✓

*\*Available on G306K 5.6" model only*

# Red Lion: integrated solutions for the plant floor.



## Data Station Plus™

Combines the data management and hosting platform capabilities of G3 Series HMIs, without the display interface

- Three serial ports and an Ethernet port facilitate simultaneous communication to multiple devices
- Web-based Virtual HMI offers built-in SCADA functionality and remote access
- Protocol conversion of over 200 protocols
- Data logging to CompactFlash® or FTP
- E-mail alarms or logged files
- Text alarm notifications to mobile phones
- Functions as a data management platform and PFM host at the same time



## PFM Series: Plant Floor Marquee

Panoramic Multi-color LED Graphic Displays

- Graphical tri-color (Green/Yellow/Red) display provides instant notice of critical information to the plant floor
- Four sizes for different applications ranging from 26" x 6.6" (66.0 x 16.8 cm) up to the large 39.3" x 22.5" (99.8 x 57.2 cm) display
- Automated collection and calculation of data from multiple I/O points; create your own "OEE" or "Andon" production display
- Uses a Red Lion G3 HMI, Modular Controller or Data Station Plus as a host device—connect to virtually any industrial device or PC via Ethernet or serial
- Communicates with over 200 different protocols and receives data from seven or more device types simultaneously
- Addressable to support multi-drop wiring



## BFD: Big Flexible Display

Graphical Red LED Display for the plant floor

- Large external monitor presents the display information from a host device to the plant floor
- Large 38.5" x 19" (97.8 x 48.3 cm) red LED display with 0.2" diameter pixels
- 128 x 64 dot resolution visible up to 250 feet
- Displays graphic images or text
- Field replaceable display boards
- Variable display intensity with flash & blanking commands

Other large displays for factory process monitoring available



## Learn more at [www.redlion.net/G3](http://www.redlion.net/G3)

The power, flexibility, ease-of-use and value offered by the G3 HMI Series is unparalleled. Learn how you can add total integration, data logging, trending, remote access and more to your machines quickly and easily with a G3 HMI and Crimson®. For your local representative, call (717) 767-6511, or go to [www.redlion.net/G3](http://www.redlion.net/G3).

## Other Red Lion Products:

### Modular Controller

Cost-effective solution to integrating multi-zone PID control, data acquisition and I/O into your PC, DCS or PLC control system. Red Lion manufactures a broad line of PID controllers, signal conditioners, and data acquisition devices for process control.

### Panel Meters

Red Lion has more high quality solutions for your digital panel meter requirements than any other supplier, including a wider range of models, sizes and capabilities.

### OEM Customized Products

Red Lion can integrate our technologies into your package or private brand our products to your requirements. Call us for a custom solution.



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ph: (717) 767-6511 fax: (717) 764-0839 [www.redlion.net](http://www.redlion.net)

**red lion**<sup>®</sup>  
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