

Mitsubishi HMIs	
GOT2000 series .....	210
Red Lion HMIs	
CR1000 .....	214
CR3000 .....	214
G3 series .....	214
G3 Graphite .....	216
Data stations .....	219
ProductVity station .....	221



# GOT2000 series HMIs



100's of drivers are available for connection to Mitsubishi or other third party products.

Advanced screen design software such as GT Designer enable screens to be quickly and efficiently created.

High resolution screens offer bright, clear displays that can be viewed from a wide range of angles.

Ultra-slim designs occupy less panel space/depth.

**STARTER KITS & WIDESCREEN VERSIONS AVAILABLE**



Units with high IP ratings ensure easy and carefree cleaning, especially useful for situations that require full wash downs.

More design freedom through flexible connectivity and mounting as many units can be used in portrait or landscape configurations.

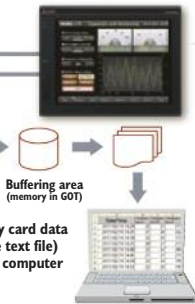
Flexible operation allows Mitsubishi HMIs to be used in industrial and commercial applications.

High-speed operation thanks to fast processors.

### Programmable controller

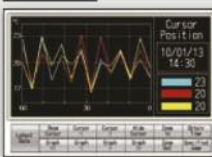


### Temperature controller



### Display as

#### Graphs



#### Lists

Time	Temp. A	Temp. B	Temp. C	Cursor
14:20	22	21	22	16/01/13 14:30
14:25	21	20	20	
14:30	23	20	20	
14:35	20	21	23	
14:40	22	20	20	
14:45	21	21	20	

Logging data can be displayed on the GOT in graphs and lists or exported to a PC. The data can also be saved in the built-in SRAM even if the power fails

The fully updated GOT2000 series HMIs offer increased productivity with lower operating costs.

The intuitive operation of the GT27 uses multi-touch function and gesture control, such as swipe, or pinch-zoom to enlarge windows - even while wearing gloves.

Although the GT23 series doesn't include the multi-touch function, it still offers an excellent range of features, providing a lower-cost option. All units are programmed using the latest Mitsubishi GT Works3 software.

### Features

- Multi-touch, pinch-zoom capability
- Flush, white panel versions for food and beverage applications
- Built-in Ethernet, RS232 & RS422/485
- SD memory card slot
- Operator authentication and logging
- Wide choice of drivers for Mitsubishi and other manufacturers controllers
- All versions have 65K colour screens
- Widescreen versions available

### STARTER KITS

Kits include:

- GOT2000 HMI
- iQ Works2 software
- USB cable, 5m (Type A to mini USB)
- Ethernet cable (CAT 6) 2m

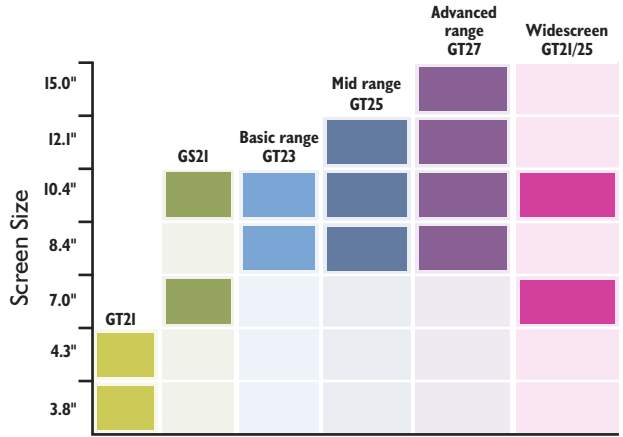


# GOT2000 series HMIs



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Performance

## GT2100 range

Monochrome with white, pink, red, green, amber backlight

Starter Kits



Screen Size	Pixels	PLC Interface			SD Card		Order Code	List Price	Order Code	List Price
		Ethernet	RS422/485	RS232	Port	Slot				
<b>5V d.c. powered</b>										
3.8" TFT	320 x 128	●	●	—	—	—	GT2103-PMBLS	£225.00	GT2103-PMBLS-ADD-ON-KIT	£475.00
<b>24V d.c. powered</b>										
3.8" TFT	320 x 128	●	●	—	—	—	GT2103-PMBD	£225.00	GT2103-PMBD-ADD-ON-KIT	£475.00
3.8" TFT	320 x 128	—	●	●	—	—	GT2103-PMBDS	£205.00	GT2103-PMBDS-ADD-ON-KIT	£455.00
4.3" TFT	480 x 272	●	●	●	●	●	GT2104-RTBD	£355.00	GT2104-RTBD-ADD-ON-KIT	£605.00

## GS2000 range

65k colour touch screen

Starter Kits



Screen Size	Pixels	PLC Interface			SD Card		Order Code	List Price	Order Code	List Price
		Ethernet	RS422/485	RS232	Port	Slot				
<b>24V d.c. powered</b>										
7" WVGA TFT	800 x 480	●	●	—	●	●	GS2107-WTBD	£400.00	GS2107-WTBD-ADD-ON-KIT	£650.00
10.4" WVGA TFT	800 x 480	●	●	●	●	●	GS2110-WTBD	£850.00	GS2110-WTBD-ADD-ON-KIT	£1,100.00

## GT2000 – Basic range

65k colour touch screen

Starter Kits



Screen Size	Pixels	PLC Interface			SD Card		Order Code	List Price	Order Code	List Price
		Ethernet	RS422/485	RS232	Port	Slot				
<b>24V d.c. powered</b>										
8.4" VGA TFT	640 x 480	●	●	●	●	●	GT2308-VTBD	£935.00	GT2308-VTBD-ADD-ON-KIT	£1,185.00
10.4" VGA TFT	640 x 480	●	●	●	●	●	GT2310-VTBD	£1,122.00	GT2310-VTBD-ADD-ON-KIT	£1,372.00
<b>100-240V a.c. powered</b>										
8.4" VGA TFT	640 x 480	●	●	●	●	●	GT2308-VTBA	£935.00	GT2308-VTBA-ADD-ON-KIT	£1,140.00
10.4" VGA TFT	640 x 480	●	●	●	●	●	GT2310-VTBA	£1,122.00	GT2310-VTBA-ADD-ON-KIT	£1,350.00

See next page for Mid and Advanced range HMIs

# GOT2000 series HMIs (continued)



### Features

- Multi-touch, pinch-zoom capability
- Flush, white panel versions for food and beverage applications
- Operator authentication and logging
- Wide choice of drivers for Mitsubishi and other manufacturers controllers
- All versions have 65K colour screens
- Widescreen versions available

### Technical specification

USB device & host connection  
 Black Bezel ..... Front & rear  
 White Bezel ..... Rear only  
 PLC Interface ..... Ethernet, RS422/485  
 RS232, SD card

## GT2000 – Mid range 65k colour touch screen

Screen Size	Pixels	Bezel Colour	Order Code	List Price
<b>24V d.c. powered</b>				
8.4" VGA TFT	640 x 480	White	GT2508-VTWD	£1,250.00
8.4" SVGA TFT	640 x 480	Black	GT2508-VTBD	£1,250.00
10.4" VGA TFT	640 x 480	White	GT2510-VTWD	£1,450.00
10.4" VGA TFT	640 x 480	Black	GT2510-VTBD	£1,450.00
12.1" SGA TFT	800 x 600	Black	GT2512-STBD	£1,840.00
<b>100-240V a.c. powered</b>				
8.4" VGA TFT	640 x 480	White	GT2508-VTWA	£1,250.00
8.4" SVGA TFT	640 x 480	Black	GT2508-VTBA	£1,250.00
10.4" VGA TFT	640 x 480	White	GT2510-VTWA	£1,450.00
10.4" VGA TFT	640 x 480	Black	GT2510-VTBA	£1,450.00
12.1" SGA TFT	800 x 600	Black	GT2512-STBA	£1,840.00

Starter Kits		NEW
Order Code	List Price	
GT2508-VTWD-ADD-ON-KIT	£1,500.00	
GT2508-VTBD-ADD-ON-KIT	£1,500.00	
GT2510-VTWD-ADD-ON-KIT	£1,700.00	
GT2510-VTBD-ADD-ON-KIT	£1,700.00	
GT2512-STBD-ADD-ON-KIT	£2,090.00	
<b>100-240V a.c. powered</b>		
GT2508-VTWA-ADD-ON-KIT	£1,450.00	
GT2508-VTBA-ADD-ON-KIT	£1,450.00	
GT2510-VTWA-ADD-ON-KIT	£1,800.00	
GT2510-VTBA-ADD-ON-KIT	£1,800.00	
GT2512-STBA-ADD-ON-KIT	£2,050.00	

## GT2000 – Advanced range 65k colour touch screen with gesture control, multi-media and camera input options

Screen Size	Pixels	Bezel Colour	Order Code	List Price
<b>24V d.c. powered</b>				
8.4" VGA TFT	640 x 480	Black	GT2708-VTBD	£1,355.00
8.4" SVGA TFT	800 x 600	Black	GT2708-STBD	£1,560.00
10.4" VGA TFT	640 x 480	White	GT2710-VTWD	£1,835.00
10.4" VGA TFT	640 x 480	Black	GT2710-VTBD	£1,835.00
10.4" SVGA TFT	800 x 600	Black	GT2710-STBD	£2,065.00
12.1" SVGA TFT	800 x 600	White	GT2712-STWD	£2,270.00
12.1" SVGA TFT	800 x 600	Black	GT2712-STBD	£2,270.00
15" XGA TFT	1024 x 678	Black	GT2715-XTBD	£2,569.00
<b>100-240V a.c. powered</b>				
8.4" VGA TFT	640 x 480	Black	GT2708-VTBA	£1,355.00
8.4" SVGA TFT	800 x 600	Black	GT2708-STBA	£1,560.00
10.4" VGA TFT	640 x 480	White	GT2710-VTWA	£1,835.00
10.4" VGA TFT	640 x 480	Black	GT2710-VTBA	£1,835.00
10.4" SVGA TFT	800 x 600	Black	GT2710-STBA	£2,065.00
12.1" SVGA TFT	800 x 600	White	GT2712-STWA	£2,270.00
12.1" SVGA TFT	800 x 600	Black	GT2712-STBA	£2,270.00
15" XGA TFT	1024 x 678	Black	GT2715-XTBA	£2,569.00

Starter Kits		NEW
Order Code	List Price	
GT2708-VTBD-ADD-ON-KIT	£1,605.00	
GT2708-STBD-ADD-ON-KIT	£1,810.00	
GT2710-VTWD-ADD-ON-KIT	£2,085.00	
GT2710-VTBD-ADD-ON-KIT	£2,085.00	
GT2710-STBD-ADD-ON-KIT	£2,315.00	
GT2712-STWD-ADD-ON-KIT	£2,520.00	
GT2712-STBD-ADD-ON-KIT	£2,520.00	
GT2715-XTBD-ADD-ON-KIT	£2,819.00	
<b>100-240V a.c. powered</b>		
GT2708-VTBA-ADD-ON-KIT	£1,565.00	
GT2708-STBA-ADD-ON-KIT	£1,755.00	
GT2710-VTWA-ADD-ON-KIT	£2,115.00	
GT2710-VTBA-ADD-ON-KIT	£2,115.00	
GT2710-STBA-ADD-ON-KIT	£2,260.00	
GT2712-STWA-ADD-ON-KIT	£2,470.00	
GT2712-STBA-ADD-ON-KIT	£2,470.00	
GT2715-XTBA-ADD-ON-KIT	£2,715.00	

See previous page for Basic range HMIs

# GOT2000 series HMIs (continued)



### Features

- 7 or 10" widescreen models
- Silver coloured bezel
- Supports remote access viewing via VNC

### Technical specification

Standard interface . . . . . Ethernet, RS232, RS422/485, SD card  
 USB host . . . . . USB A  
 USB device . . . . . USB mini-B

**GT2000 – Widescreen**  
 65k colour touch screen


Starter Kits <span style="float: right;">NEW</span>	
Order Code	List Price
GT2107-WTSD-ADD-ON-KIT	£795.00
GT2510-WXTSD-ADD-ON-KIT	£1,600.00

Screen Size	Pixels	Bezel Colour	Order Code	List Price	Order Code	List Price
7" wide WVGA TFT	800 x 480	Silver	GT2107-WTSD	£545.00	GT2107-WTSD-ADD-ON-KIT	£795.00
10" wide WXGA TFT	1280 x 800	Silver	GT2510-WXTSD	£1,350.00	GT2510-WXTSD-ADD-ON-KIT	£1,600.00

### Protective sheets

Screen Size	USB Front	USB Rear	Pack Qty	Order Code	List Price
3.8"	—	—	5	GT21-03PSCC-UC	£16.00
8.4"	—	●	5	GT25-08PSCC-UC	£30.00
8.4"	●	—	5	GT25-08PSCC	£30.00
10.4"	—	●	5	GT25-10PSCC-UC	£38.00
10.4"	●	—	5	GT25-10PSCC	£38.00
12.1"	—	●	5	GT25-12PSCC-UC	£61.00
12.1"	●	—	5	GT25-12PSCC	£61.00
15"	—	●	5	GT25-15PSCC	£75.00
15"	●	—	5	GT25-15PSGC	£75.00

## STARTER KITS



**Kits include:**

- GOT2000 HMI with black or white bezel
- iQ Works2 software (2 licence)
  - ❖ Melsec Navigator2
  - ❖ GX Works3
  - ❖ MT Works2
  - ❖ GT Works3
  - ❖ RT Toolbox2
- USB cable, 5m Type A to mini USB
- Ethernet cable, 2m CAT6 Grey Patch Cable

For full details of these Starter Kits go to [www.lcautomation.com](http://www.lcautomation.com)

### Software

Description	Order Code	List Price
SoftGOT PC based GOT2000 HMI software with USB licence dongle	GT27-SGTKEY-U	£1,143.81
MES interface – 1 licence	GT25-MESIFKEY-1	£165.00
VNC licence key for GT27 series HMIs – 1 licence	GT25-VNCSKEY-1	£25.00
PC remote access software for GOT2000 HMIs, 1 licence	GT25-PCRAKEY-1	£165.00
GOT2000 mobile webserver licence code for GT25/27 (Allows up to 5 users to view GOT via web browser)	GT25-WEBSKEY-1	£25.00
GOT2000 wireless LAN option unit for GT25/27	GT25-WLAN	£145.00
GT Works3 software; 2 licence	GTWORKS-3-VOL1-2LOC-E	£212.50
GT Works3 software; 5 licence	GTWORKS-3-V01-5LOC-E	£482.00

### Cables

Description	Order Code	List Price
FX PLC RS422 communication cable; 1m	GT10C10-R4-8P	£16.50
Q-series PLC RS232 communication cable; 3m	GT10C30-R2-6P	£24.75
FX PLC RS422 connection cable; 1m	GT01C10R4-8P	£27.50
FX PLC RS422 connection cable; 3m	GT01C30R4-8P	£39.00
FX PLC RS422 connection cable; 10m	GT01-C100R4-8P	£72.00
FX PLC RS232/Q-series PLC RS422 connection cable; 3m	GT01-C30R4-25P	£124.50
Q-series PLC RS232 programming cable; 3m	GT01C30R2-6P	£49.00
USB programming cable; 2m	GT09C20USB-PROG-2M	£19.25
Heavy duty USB programming cable; 2m	GT09C30USB-5P	£105.60

### Accessories

Description	Order Code	List Price
RS232 to RS485 converter	GT14-RS2T4-9P	£90.00
Battery for clock and data backup	GT1150-BAT	£35.00
Panel mount USB port interface with cable	GT14-C10EXUSB-4S	£114.00

# CRI000 and CR3000 entry level HMIs



The CRI000 HMI easily handles basic requirements for machine interface and protocol conversions while the CR3000 addresses more advanced needs with realtime data logging and a built-in web server.

They both combine over 300 industrial drivers with the intuitive and powerful Crimson 3.1 development platform to create an operator experience designed to easily adapt as needs change and operations grow.

### Common features

- NEMA, 4X, IP66 front panel rating
- Supports over 300 industrial drivers
- SD card slot
- High shock and vibration tolerance
- 4.3", 7", 10" or 15" touchscreens
- CE, UL/cUL approvals

### Technical specification

Ethernet	.....	10/100Mb
Comms ports		
CRI000	... 1xRS232, 1xRS232/422/485	
CR3000 (4.3")	... 1xRS232, 1xRS232/485	
CR3000 (7,10,15")	..... 2xRS232, 2xRS232/485	
Power supply		
CRI000	.....	24 V d.c.
CR3000	.....	10-30V d.c.
Operating temperature	... -10 to +50°C	
Protection rating	.....	NEMA 4/IP66

### CR1000 series HMIs

Screen Size	Pixel Resolution	Serial Ports	Ethernet Ports	USB Host	Data Logging & Web Server	Order Code	List Price
4.3"	480 x 272	2	1	0	—	CR1000-04000-00210	£339.00
7"	800 x 480	2	1	0	—	CR1000-07000-00210	£639.00
10.4"	800 x 600	2	1	0	—	CR1000-10000-00210	£949.00

### CR3000 series HMIs

Screen Size	Pixel Resolution	Serial Ports	Ethernet Ports	USB Host	Data Logging & Web Server	Order Code	List Price
4.3"	480 x 272	3	1	1	●	CR3000-04000-00310	£619.00
7"	800 x 480	4	2	2	●	CR3000-07000-00420	£899.00
10.4"	800 x 600	4	2	2	●	CR3000-10000-00420	£1,519.00

# G3 series HMIs



Red Lion don't manufacture PLCs, so G3 HMIs are designed to work with any device from any supplier.

They are also loaded with features and communication capability to allow multi-level access to those devices, across your factory.

### Protocol conversion

- Converts 300 industrial protocols
- Acts as a gateway between protocols
- Drag & drop data mapping

### Data logging

- Acquire data from all connected devices into a single CSV file
- Collect, store and display data
- Email or FTP logged files

### Web server

- Web/network enable devices
- Automatic uploads to FTP, web pages and/or dashboards
- Display HMI, tags or custom pages



### Remote access

- Securely monitor, access or control system functions
- Upload/download databases, recipes or log files
- Email/text message alarm or event notifications

**Communicate...** with devices from any supplier; allowing you to choose the best PLCs and drives, etc. for your application, then connect and control them all from a single point.

**Collect...** data from any connected device and compile into a single CSV file where it can be stored, displayed, emailed, uploaded via FTP or posted to custom web pages.

**Connect...** to your G3 series HMI to remotely monitor and control equipment from your PC, web enabled mobile phone or tablet. Standard web browsers provide remote virtual display and control with screens identical to your G3 HMI.

## G3 series HMIs (continued)

**G303 - 3.2" screen**

148 x 189 x 52mm (h x w x d)

**G306A - 5.7" screen**

180 x 225 x 58mm (h x w x d)

**G308 - 8.4" screen**

208 x 262 x 73mm (h x w x d)

**G310 - 10.4" screen**

241 x 326 x 62mm (h x w x d)

**G315 - 15" screen**

330 x 406 x 72mm (h x w x d)

**Common features**

- Programmable function keys and touchscreen
- 3 serial ports and 1 Ethernet port as standard (dual Ethernet available)
- CompactFlash memory option

**Technical specification**

Ethernet	10/100Mb
Comms ports	2 x RS232, 1 x RS422/485
Power supply	24 V d.c.
Protection rating	NEMA 4/IP65

**G3 series HMIs**

Description	Colours	For Outdoor	USB Host	Pixel Resolution	Order Code	List Price
7.5" TFT	32K	–	–	640 x 480	G308C100	£1,160.00
8.4" TFT	32K	–	●	640 x 480	G308A210	£1,547.00
8.4" TFT; dual Ethernet	32K	–	●	640 x 480	G308A230	£1,932.00
10.4" TFT	32K	–	●	640 x 480	G310C210	£1,855.00
10.4" TFT; dual Ethernet	32K	–	●	640 x 480	G310C230	£2,241.00
10.4" TFT	32K	–	●	800 x 600	G310R210	£2,087.00
10.4" TFT; dual Ethernet	32K	–	●	800 x 600	G310R230	£2,473.00
10.4" TFT	32K	●	●	640 x 480	G310S210	£2,009.00
10.4" TFT; dual Ethernet	32K	●	●	640 x 480	G310S230	£2,395.00
15" TFT	32K	–	●	1024 x 768	G315C210	£2,706.00
15" TFT; dual Ethernet	32K	–	●	1024 x 768	G315C230	£3,092.00

**G3 HMI option cards**

Description	Order Code	List Price
RS232/485 option card	G3RS0000	£95.00
CANopen or J1939 option card	G3CN0000	£97.00
DeviceNet option card	G3DN0000	£288.00
Profibus DP option card	G3PBDP00	£83.00
Ethernet option card	G3ENET00	£360.00
Multi Point Interface (MPI) option card	G3MPI000	£129.00
Quad-band GSM/GPRS antenna - direct mount	G3QANT00	£30.00
Quad-band GSM/GPRS antenna - panel mount	G3QANTPM	£35.00

**G3 HMI accessories**

Description	Order Code	List Price
CompactFlash card; 64MB	G3CF064M	£65.00
CompactFlash card; 1GB	G3CF001G	£109.00
CompactFlash card; 2GB	G3CF002G	£129.00
Screen protectors for 3.2" HMI screen (pack of 10)	G3FILM03	£35.00
Screen protectors for 5.7" HMI screen (pack of 10)	G3FILM06	£36.00
Screen protectors for 8.4" HMI screen (pack of 10)	G3FILM08	£54.00
Screen protectors for 10.4" HMI screen (pack of 10)	G3FILM10	£54.00
Screen protectors for 15" HMI screen (pack of 10)	G3FILM15	£70.00
Crimson software CD with printed manual, RS232 & USB cables	SFCRM200	£43.00
RS232 programming cable; 3m	CBLPROG0	£32.00
USB cable; 3m	CBLUSB00	£22.00

Red Lion G3 series HMIs are programmed using Crimson 3 software which is available to download for free from the Red Lion website. Crimson software provides easy to use drag and drop communications configuration, while the embedded image library allows the programmer to create intuitive screens and prompts for the operator.



# G3 Graphite – rugged, aluminium HMIs



The Red Lion Graphite series provides the industry's first rugged HMI solution to combine flexible plug-in modules with protocol conversion, data logging and web-based monitoring and control.

From factories to extreme outdoor locations, Graphite allows customers to easily connect, monitor and control their processes.

Designed to be extremely rugged, Graphite HMIs feature cast-aluminum construction, wide temperature ratings and superior resistance to shock and vibration.

Available in eight different models with sizes ranging from 7" to 15", Graphite's sleek design provides full-colour touchscreen displays that consume minimal panel space.

## Major benefits

- Reduce programming time using drag-and-drop Crimson 3.1 software
- Graphite's sleek bezel allows users to save panel or enclosure space
- Rugged construction provides wide temperature range and shock and vibration specifications for installation in harsh environments
- With its modular design, Graphite can accept direct inputs from a range of devices or provide full PID control

## Common features

- Die-cast aluminum housing provides extreme protection
- Extended temperature -20 to +60°C
- Outdoor/sunlight readable models are available
- Widescreen models available
- Dual USB host capability
- Plug-in modules allow expansion beyond normal HMI capabilities
- Protocol conversion with more than 300 protocols
- Built-in web server for remote access
- On-board data logging to SD card or FTP

## Technical specification

Ethernet	..... 10 Base T/100 Base Tx
Comms ports	..... 2 x RS232, 1 x RS422/485
Power supply	..... 24 V d.c.
Operating temperature	..... -20 to +60°C
Protection rating	..... NEMA 4X/IP66



**Crimson 3.1**  
programming  
software

is available to download for free direct from the Red Lion website



## G3 Graphite series plug-in modules



One of the many benefits of the Graphite series is the range of available plug-in expansion modules.

Plug-in modules help to provide a cost effective solution for today, with the ability to expand to meet changing business requirements in the future.

Not only does this future proof your investment, it also means you don't pay for options and capacity you don't need.



## G3 Graphite – rugged, aluminium HMIs (continued)

**G07 - 7" screen**

140 x 196 x 51mm (h x w x d)

**G09 - 9" screen**

164 x 256 x 53mm (h x w x d)

**G10 - 10" screen**

218 x 275 x 53mm (h x w x d)

**G12 - 12" screen**

208 x 307 x 53mm (h x w x d)

**G15 - 15" screen**

281 x 356 x 55mm (h x w x d)

## G3 Graphite HMIs

Description	Colours	For Outdoor	Dual Ethernet	Pixel Resolution	Order Code	List Price
7" HMI	16M	–	–	800 x 480	G07C0000	£1,120.00
7" HMI	16M	●	–	800 x 480	G07S0000	£1,330.00
9" HMI	16M	–	–	800 x 480	G09C0000	£1,645.00
9" HMI	16M	–	●	800 x 480	G09S1000	£1,852.00
10" HMI	16M	–	–	640 x 480	G10C0000	£1,925.00
10" HMI	16M	–	●	640 x 480	G10C1000	£2,132.00
10" HMI	16M	–	–	800 x 600	G10R0000	£2,181.00
10" HMI; High resolution	16M	–	●	800 x 600	G10R1000	£2,388.00
10" HMI	16M	●	–	640 x 480	G10S0000	£2,135.00
10" HMI	16M	●	●	640 x 480	G10S1000	£2,342.00
12" HMI	16M	–	–	1280 x 800	G12C0000	£2,275.00
12" HMI; Dual RS-485	16M	–	●	1280 x 800	G12C1100	£2,482.00
15" HMI	16M	–	–	1024 x 768	G15C0000	£2,695.00
15" HMI; Dual RS-485	16M	–	●	1024 x 768	G15C1100	£2,902.00

## G3 Graphite series plug-in modules

Description	Order Code	List Price
Single loop PID module; relay & analogue outputs	GMP1RA00	£195.00
Single loop PID module; relay outputs & heater current monitor	GMP1RM00	£195.00
Single loop PID module; SSR & analogue outputs	GMP1SA00	£195.00
Single loop PID module; SSR outputs & heater current monitor	GMP1SM00	£195.00
Dual loop PID module; relay outputs	GMP2R000	£261.00
Dual loop PID module; relay outputs & heater current monitor	GMP2RM00	£287.00
Dual loop PID module; SSR outputs	GMP2S000	£261.00
Dual loop PID module; SSR outputs & heater current monitor	GMP2SM00	£287.00
Digital I/O module; 8 x inputs & 6 x relays outputs	GMDIOR00	£221.00
Digital I/O module; 8 x inputs & 6 x solid state outputs	GMDIOS00	£221.00
Universal analogue input module; 4 x inputs	GMUIN400	£326.00
Analogue output module; 4 x outputs	GMOUT400	£261.00
DC Current analogue input module; 8 x inputs	GMINI800	£391.00
DC Voltage analogue input module; 8 x inputs	GMINV800	£391.00
Thermocouple input module; 8 x inputs	GMTC8000	£456.00
RTD input module; 6 x inputs	GMRTD600	£293.00
Graphite Crimson controller	GMCC0000	£319.00

## G3 Graphite series cables and accessories

Description	Order Code	List Price
SD card; 1GB	SD001G00	£40.00
SD card; 2GB	SD002G00	£65.00
Screen protectors for 7" HMI screen (pack of 10)	G0FILM07	£82.00
Screen protectors for 9" HMI screen (pack of 10)	G0FILM09	£97.00
Screen protectors for 10" HMI screen (pack of 10)	G0FILM10	£107.00
Screen protectors for 12" HMI screen (pack of 10)	G0FILM12	£129.00
Screen protectors for 15" HMI screen (pack of 10)	G0FILM15	£145.00
Crimson software CD with printed manual, RS232 & USB cables	SFCRM200	£43.00
RS232 programming cable; 3m	CBLPROG0	£32.00
USB cable; 3m	CBLUSB00	£22.00

Red Lion G3 Graphite series HMIs are programmed using Crimson 3 software which is available to download for free from the Red Lion website. Crimson software provides easy to use drag and drop communications configuration, while the embedded image library allows the programmer to create intuitive screens and prompts for the operator.

## Graphite Edge controller

**NEW**



A rugged all-in-one industrial solution that reduces costs and complexity by combining IEC61131 control capabilities with networking and data visualisation.

### Features

- Industry standard control language support
- Protocol conversion of 300+ drivers
- Support up to 18 simultaneous protocol conversions
- Web server for data visualisation
- Real-time data logging to SD card or via FTP
- Rugged construction for extreme protection
- Wide operating temperature range
- Scalable modules and expansion options

### Technical specification

Input voltage ..... 10-30V d.c.  
 Operating temperature ... -40 to +70°C  
 Dimensions ..... h162 x w105 x d112mm  
 Mounting ..... Panel mount or DIN rail



See page 216 for details

[www.lcautomation.com](http://www.lcautomation.com)

Description	Order Code	List Price
Graphite Edge controller	GRAC0001	£1,090.00

## Graphite Core controller

**NEW**



A rugged standalone industrial controller with all-metal construction, it works with a variety of I/O modules to combine IEC61131 control capabilities with networking and data visualisation alongside the core functionality – protocol conversion, data logging and web serving – of a Graphite 7" HMI minus the graphical display.

### Features

- Industry standard control language support
- Protocol conversion of 300+ drivers
- Support up to 18 simultaneous protocol conversions
- Web server for data visualisation
- Real-time data logging to SD card or via FTP
- Rugged construction for extreme protection
- Wide operating temperature range
- Scalable modules and expansion options

### Technical specification

Input voltage ..... 10-30V d.c.  
 Operating temperature ... -40 to +70°C  
 Dimensions ..... h155 x w178 x d50mm  
 Mounting ..... Panel mount or DIN rail

Description	Order Code	List Price
Graphite Core controller, 5 port self-contained rack	GRAC0005	£1,190.00

## Graphite Crimson control module

**NEW**



A control module that plugs into Graphite HMIs to form an all-in-one industrial solution that adds IEC61131 control functionality without requiring additional panel space or a separate programming package.

### Features

- IEC 61131 logic control programming
- Rugged environmental specifications
- All-in-one industrial solution
- Easy configuration using Crimson 3 programming software

**red lion**



**Crimson 3.1**  
programming software

is available to download for free  
from the Red Lion website

Description	Order Code	List Price
Graphite Crimson controller	GMCC0000	£319.00

# Web-enabled PID loop control and data acquisition



## Multi-zone process control with dedicated PID modules.

Integrating multi-zone PID control into PC, PLC, and DCS-based systems now takes only a few minutes with Red Lion's modular controller series. Lifting the burden of PID control from the controller avoids using I/O cards, freeing valuable PLC memory and processing power for other tasks.

The series is comprised of a master module and up to 16 PID modules. The master communicates PID module data to the external PC, PLC,

or DCS by selecting and downloading the proper device driver, allowing the modular controller to communicate in your device's native language. You can also drag and drop control data to PLC registers using point-and-click data mapping, slashing programming costs, while eliminating the need for costly add-on I/O or analogue cards.

With its RS-232/485 and 10/100 Base T Ethernet ports, the master can be connected to almost any device.

The modular controller is also a data-acquisition system with built-in SCADA-like functionality. With its onboard CompactFlash card, the master can store data in CSV format, allowing office applications such as MS Excel to open and chart the data.

With its built-in web server, you have remote access to the data files, as well

as an innovative "virtual HMI". Create intuitive user interface screens as if an HMI were connected, and control the process from any networked PC with a standard Internet browser - saving £££'s compared to SCADA software!

Monitor 16 modules with up to 14 points each—224 I/O with a single master. Mix and match analogue, digital and dedicated PID modules.

### Features include

- Powerful, 32 zone PID control
- Easy to use data acquisition platform
- Built-in communications drivers and data logger
- CompactFlash card data storage
- Integrated Ethernet and web server
- Remote monitoring and operation
- Hot-swap extension modules
- SMS or email files, alarms and events

# Modular controller masters



### Features

- Performs hierarchical control of up to 16 modular controller series modules
- Provides power and communication to modules via backplane connector
- Auto module identification/addressing
- Stores configuration & automatically reprogrammes replaced modules
- Extensive built-in driver list allows easy data mapping to PLCs, PCs, and SCADA systems
- 2 RS232 and 1 RS422/485 serial ports
- 10 BASE-T/100 BASE-TX Ethernet connection and USB port

- Enhanced data acquisition & multi-zone PID control
- Webserver provides access to custom web pages, virtual HMI and built-in data-logger (SX/GT)
- CompactFlash card socket for increased memory capacity
- Web-based HMI provides remote monitoring and control (up to QVGA size for SX and VGA size for GT)
- Optional card adds fieldbus connectivity, extra serial ports, etc.

## Modular controller master

Description	Order Code	List Price
Modular controller master	CSMSTRLE	£380.00
Modular N master, data logger, virtual HMI	CSMSTRSX	£696.00
Modular controller master, data logger, VGA virtual HMI	CSMSTRGT	£901.00

## Modular controller accessories

Description	Order Code	List Price
CompactFlash card; 1GB	G3CF001G	£109.00
CompactFlash card; 2GB	G3CF002G	£129.00
Crimson software CD with printed manual, RS232 & USB cables	SFCRM200	£43.00
RS232 programming cable; 3m	CBLPROG0	£32.00
USB cable; 3m	CBLUS800	£22.00

# Modular controller extension modules



## Digital I/O modules

- Inputs isolated from outputs
- Inputs independently switch selectable for sink or source signals
- Inputs independently configurable for high or low active state
- Inputs independently switch selectable for high or low frequency signals



## Analogue output module

- Available outputs include 0 to 5V d.c., 0 to 10V d.c.,  $\pm 10V$  d.c., and 0/4-20mA d.c.
- Outputs are isolated from each other and from the backplane
- Outputs are software configured and fully scalable

## Digital input/output modules

Description	Order Code	List Price
Digital I/O module; 8 inputs & 6 relay outputs	CSDIO14R	£186.00
Digital I/O module; 8 inputs & 6 solid state outputs	CSDIO14S	£186.00

## Analogue input modules

- Accept  $\pm 10V$  and 0/4-20 mA inputs with per channel input options
- 100 point linearisation available
- Unused inputs can be disabled to increase overall reading rate
- Ideal for data-acquisition applications

## Analogue output module

Description	Order Code	List Price
Analogue output module; 4 channels	CSOUT400	£209.00

## Dual loop PID modules

- Fully isolated design provides reliable operation
- PID control with reduced overshoot
- Universal inputs; thermocouple, RTD, 0-10V and 0/4-20mA signals
- Auto-tuning of PID settings
- Heater current input versions detect heater circuit failure

## Analogue input modules

Description	Order Code	List Price
Current input module; 8 channels, 0(4) to 20mA	CSINI800	£400.00
Current input module; 8 channels, 0(4) to 20mA, 100 point lineariser	CSINI8L0	£421.00
Voltage input module; 8 channels, $\pm 10V$	CSINV800	£400.00
Voltage input module; 8 channels, $\pm 10V$ , 100 point lineariser	CSINV8L0	£421.00

## Temperature input modules

- Thermocouple input version provides independent type selection for each input
- Unused inputs can be disabled to increase overall reading rate
- Ideal for data-acquisition applications

## Dual loop PID modules

Description	Order Code	List Price
Dual loop PID module; relay outputs	CSPID2R0	£255.00
Dual loop PID module; relay outputs, heater current input	CSPID2RM	£277.00
Dual loop PID module; solid state outputs	CSPID2S0	£255.00
Dual loop PID module; solid state outputs, heater current input	CSPID2SM	£277.00
Dual loop PID module; triac outputs	CSPID2T0	£255.00
Dual loop PID module; triac outputs, heater current input	CSPID2TM	£277.00

## Strain gauge modules

- PID control with reduced overshoot
- Load cell, pressure and torque bridge inputs
- Software selectable low level inputs (20mV, 33mV or 200mV full scale)
- Software selectable 5V d.c. or 10V d.c. bridge excitation
- Digital tare (re-zero), batch totaliser, and peak/valley (max/min) recording
- Auto-tuning of PID settings
- d.c. analogue output

## Temperature input modules

Description	Order Code	List Price
Thermocouple input module; 8 channels	CSTC8000	£400.00
RTD input module; 6 channels	CSRTD600	£299.00

## Strain gauge modules

Description	Order Code	List Price
Strain gauge module; 1-loop/1SG input, relay outputs,	CSSG10RA	£238.00
Strain gauge module; 1-loop/1SG input, solid state outputs,	CSSG10SA	£238.00
Strain gauge module; 1-loop/2SG inputs, relay outputs,	CSSG11RA	£298.00
Strain gauge module; 1-loop/2SG inputs, solid state outputs,	CSSG11SA	£298.00

# Visual management – ProductVity station



### Improve your factory floor productivity with Red Lion PTV.

There are various ways to improve productivity, but most rely on analysing Key Performance Indicators (KPIs) and communicating them to production staff on the factory floor.

That's where a Red Lion ProductVity Station (PTV) can make a real difference, and take advantage of the low price of off-the-shelf LCD TVs.

### Plant floor data

Large, flat screen TV's aren't designed with productivity in mind and lack the ability to gather plant floor data. The Red Lion PTV is the only ready-to-deploy solution that can display KPIs and productivity information directly on virtually any LCD TV.

With more than 300 communications drivers, three independent serial ports and an Ethernet port, the PTV can connect and collect data from virtually any PLC, a.c. inverter, etc.

### Crimson 3 software

The ProductVity station is programmed using Crimson 3 software which is free to download from the Red Lion website. Crimson software provides easy to use drag and drop communications configuration, while the embedded image library allows the programmer to create intuitive screens and prompts for the operator.

### Built-in data logger

The built-in data logger can record key performance indicators, as well as andon events for later review. The PTV can also synchronize log files with an FTP server and/or Microsoft's SQL server for further analysis.

### Productivity information

The PTV also extends production monitoring to remote personnel. With email and text alerts, and a built-in webservice, productivity information can be monitored via PC, mobile or tablet. Remote personnel can take partial or full control of the system, allowing maintenance personnel to make changes without visiting the site.

### Features

- Ready to deploy plant floor visualisation system
- Programmed using Crimson 3 software (*free to download from the Red Lion website*)
- Creates hi-definition KPI or andon message boards
- 720p DVI output supports 720 or 1080 TVs with HDMI/DVI interfaces
- 300 drivers can communicate directly with PLCs, a.c. inverters, etc. and can read from Microsoft SQL database
- Connect up to 16 extension modules to accept digital and analogue signals (see page 220 for details)
- Built-in webservice allows remote viewing or control from any internet connected PC, mobile or tablet
- Provides email and SMS text message alerts
- Syncs data logs to FTP servers and Microsoft SQL server®
- 32 bit floating point maths allows creation of virtually any KPI (Key Performance Indicator)
- Includes HDMI cable and HDMI/DVI adapter to support any monitor/TV

### Supplied with:

- Terminal block for connecting power
- DVI to HDMI cable (4.5m)
- 2Gb CompactFlash card

### Technical specification


- Supply voltage . . . . . 24V d.c.
- Communication ports  
USB/A  
USB/B for programming  
DVI output  
RS232/485  
Ethernet
- Operating temperature . . . . . 0 to 45°C
- Storage temperature . . . . . -30 to +70°C
- Construction . . . . . Black high impact plastic and stainless steel
- Power connection . . . . . Removable wire clamp screw terminal block
- Mounting . . . . . DIN rail



**Crimson 3**  
programming software

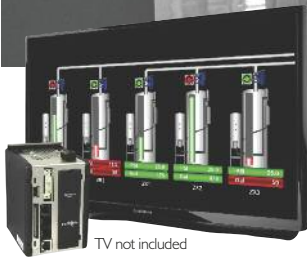
is available to download for free direct from the Red Lion website



See next page for order codes & prices 







### ProductVity Station

Description	Order Code	List Price
ProductVity station	PTV00000	£2,421.00

### Option cards

Description	Order Code	List Price
CANopen option card	XCN0000	£141.00
DeviceNet option card	XCDN0000	£282.00
Ethernet option card	XCENET00	£346.00
Profibus DP option card	XCPBDP00	£86.00
RS232/485 option card	XCRS0000	£98.00

Connect up to 16 extension modules to accept digital and analogue signals - see page 220 for details

[www.lcautomation.com](http://www.lcautomation.com)

### Accessories

Description	Order Code	List Price
24V d.c. power supply; 30w	PSDR030W	£88.00
24V d.c. power supply; 60w	PSDR060W	£108.00
24V d.c. power supply; 95w	PSDR095W	£148.00
RS232 programming cable; 3m	CBLPROG0	£32.00
USB cable; 3m	CBLUSB00	£22.00