Allen-Bradley Guardmaster 440C-CR30
Software Configurable Safety Relay
A Flexible, Cost-Effective and Easy-to-Use Safety Solution

Features
- PLe, SIL3 per EN ISO 13849-1, IEC 62061
- 22 embedded Safety I/O
- Embedded USB programming port
- Embedded Modbus RTU serial port
- Optional Ethernet plug-in module
- Two plug-in ports supporting Micro800® (2080) plug-ins

Benefits
- Quick and easy configuration via Studio 5000 Logix Designer™ or Connected Components Workbench™ – a single software environment for standard and safety control
- Pre-defined drag-and-drop safety function blocks simplify programming
- Advanced diagnostics enable increased productivity and enhanced safety
- Embedded Modbus communicates with Allen-Bradley® Connected Components for efficient monitoring and troubleshooting
- Compact design optimizes panel space
- Flexible, scalable solution thanks to standard Micro800 I/O plug-ins

Safety made simple and flexible
The new Allen-Bradley Guardmaster® 440C-CR30 Safety Relay is a flexible, cost-effective and easy-to-use configurable safety relay ideal for applications requiring four to 10 safety circuits and control of up to five zones. The Guardmaster 440C-CR30 Safety Relay is configured through a simple process of selecting certified safety function blocks to rapidly build your applications. The Guardmaster 440C-CR30 safety relay is completely integrated with Allen-Bradley Logix controllers and can be configured and programmed in the Rockwell Software® Studio 5000® environment. This means you can create, control and monitor a safety system in the same software environment as their standard control, resulting in increased productivity and reduced commissioning time.

Increase your uptime
An optional Ethernet plug-in module allows the Guardmaster 440C-CR30 to easily communicate diagnostic data to an Allen-Bradley CompactLogix™ or Micro800 controller. By leveraging the features of Connected Components Workbench software and the embedded communication capabilities of the Guardmaster 440C-CR30 Safety Relay, users can monitor, troubleshoot and modify their applications quickly and easily for increased uptime. Five status and 16 user configurable LEDs on the Guardmaster 440C-CR30 relay’s faceplate provide local diagnostics to further aid in status reporting and troubleshooting.

Optimize panel space
With 22 on-board safety I/O points, including six configurable I/O, the Guardmaster 440C-CR30 Safety Relay is a flexible solution for applications requiring multiple safety zones. Without increasing the footprint, the 440C-CR30 can also be expanded with two standard Micro800 plug-in modules to support 16 additional standard I/O points, saving valuable safety I/O points for your safety system.
### Specifications

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Communications ports, embedded</td>
<td>• USB 2.0 (non-isolated)</td>
</tr>
<tr>
<td></td>
<td>• RS232 non-isolated serial</td>
</tr>
<tr>
<td>Base Programming Port</td>
<td>USB 2.0 (non-isolated)</td>
</tr>
<tr>
<td></td>
<td>USB 2.0 (non-isolated) embedded printer cable will work</td>
</tr>
<tr>
<td>Base digital I/O points (see Types and Number of Inputs/Outputs)</td>
<td>22</td>
</tr>
<tr>
<td>Base number of plug-in modules</td>
<td>2</td>
</tr>
<tr>
<td>Maximum digital I/O(1)</td>
<td>38</td>
</tr>
<tr>
<td>Power supply</td>
<td>Embedded 24V DC power supply, optional external 120/240V AC power supply available</td>
</tr>
<tr>
<td>Software</td>
<td>Studio 5000 Logix Designer or Connected Components Workbench</td>
</tr>
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### Accessory/Catalog No.

<table>
<thead>
<tr>
<th>Accessory/Catalog No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>440C-ENET</td>
<td>Ethernet Plug-in Module, Slot 1 only</td>
</tr>
<tr>
<td>2080-IQ4OB4</td>
<td>8-pt Combo: 4-pt Digital Input, 12/24VDC, Sink/Source, Type3, and 4-pt Digital Output, 12/24VDC, Source</td>
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<tr>
<td>2080-IQ4</td>
<td>4-pt Digital Input, 12/24VDC, Sink/Source, Type3</td>
</tr>
<tr>
<td>2080-OB4</td>
<td>4-pt Digital Output, 12/24VDC, Source</td>
</tr>
<tr>
<td>2080-OW4I</td>
<td>4-pt Relay Output, Individually Isolated, 2A</td>
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<tr>
<td>2080-MEMBAK-RTC</td>
<td>Project Backup and Restore module</td>
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</tbody>
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1(1) The number of maximum digital I/O assumes 8-point digital I/O plug-ins (for example, 2080-IQ4OB4) are used on all available plug-in slots. Standard digital inputs can only be used for non-safety rated diagnostics and control such as resets, muting sensors or external device monitoring feedback circuits.

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### I/O Type | Number
---|---
Input Only (24V DC Sink) | 10
Input Multi-Purpose Terminal:
• Input (24V DC Sink) | 2
• Single Wire Safety Input
Multi-Purpose Terminal:
• Input (24V DC Sink) | 6
• Test Output
• Output (24V DC Source)
Output Only (24V DC Source) | 2
Output Multi-Purpose Terminal:
• Output (24V DC Source) | 2
• Single-Wire Safety Output

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