



**HAWKEYE**<sup>™</sup>  
RADAR EVOLVED

**RADAR PROCESSING UNIT AND  
INTEGRATED SYSTEM COMPONENTS  
DATASHEET**

# Hawkeye Processing Unit

The Processing Unit is a mandatory component of a Hawkeye Radar installation and is capable of running the In|Sync adaptive control software.



Fig. 1 Rack Mountable - 330s-Style



Fig. 2 Shelf Mountable - NEMA-Style

## FEATURES

- Computer processing of connected detectors (i.e., radar or camera unit)
- Remote monitoring/configuration via a web interface
- Tied to the cabinet, enabling monitoring of light status
- Password protection for access on shared networks with multiple levels of credentials
- Automatic per-phase and per-lane traffic counts
- VGA video port for monitoring in cabinet
- 2 USB ports for keyboard/mouse and field upgrades
- 10/100 Mbps Ethernet port
- Compatible with all types of traffic controllers and cabinets for fast, easy installation
- Flexible and extensive input/output options for advanced functionality
- Allows for either rack or shelf mounting

## SPECIFICATIONS

### Hardware and Software

- CPU: Intel Core i5-7300U
- Number of Cores: 2
- Number of Threads: 4
- RAM: 8 GB Industrial DDR4 RAM
- SSD: 64 GB Industrial iMLC SSD
- Cache: 3MB SmartCache
- Operating System: Windows 10 Enterprise LTSB 64-bit

### Dimensions

- 5.9" W x 9.5" D x 10.8" T  
(150mm W x 241mm D x 275.5mm T)

### Environment

- Operating Temp: -40°F to 165°F  
(-40°C to 74°C)
- Storage Temp: -40°F to 185°F  
(-40°C to 85°C)

# SDLC Intercept Module

The SDLC (Synchronous Data Link Control) Intercept module is used to interface the Hawkeye processing unit to the traffic controller and cabinet. The SDLC Intercept Module supports connections to NEMA TS2 Type 1, NEMA TS2 Type 2, and ATC Cabinets. The connection between the two major components is running over a dedicated SDLC Cable.



*Fig. 3 SDLC module with designated cable*



## FEATURES

- Compact, stand-alone box design, easily sits on a shelf
- Supports standard NEMA TS2 SDLC and ITS connections
- Provides a switch for manually bypassing the intercept mode
- Contains an RS-232 port and associated RJ12 connector for local serial access
- Compatible with the NEMA TS2-Type 1 and TS2-Type 2 and ATC traffic controllers
- Includes serial cable for processing unit communication
- Includes power cable for SDLC Intercept module
- Uses minimal space in cabinet
- Includes BIU cable

## SPECIFICATIONS

### Dimensions

- 1.75" W x 5.75" D x 8" T  
(44mm W x 146mm D x 203mm T)

### Weight

- 1.4 lb (0.68 kg)

### Environment

- Operating Temperature: -40°F to 165°F  
(-40°C to 74°C)
- Operating Humidity: 10% to 90%  
(non-condensing)

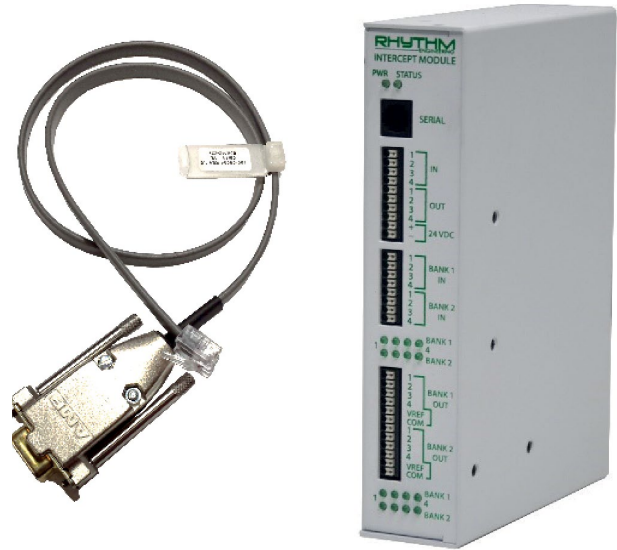
### Power

- 12 to 48VDC

# Intercept Module

The Intercept Module is a general-purpose input and output module. It provides connection to non-standard detection inputs, such as those from pedestrian push buttons, railroad crossings, transit system priority, and emergency vehicle preemption. Built-in fail-safes allow inputs to be passed through during communication or power failures.

Fig. 4 Hawkeye Intercept module with serial cable



## FEATURES

- Provides for eight field inputs and eight field outputs
- Provides a way to listen to and produce signals that are 12 VAC or 24 VDC referenced
- Compact, stand-alone box design, easily sits on a shelf
- Optional bracket allows rack mounting
- Contains an RJ12 connector to connect to the processing unit
- Built-in fail-safes
- Includes a serial cable

## SPECIFICATIONS

### Dimensions

- 1.75" W x 5.75" D x 8" T  
(44mm W x 146mm D x 203mm T)

### Weight

- 1.4 lb (0.68 kg)

### Environment

- Operating Temperature: -40°F to 165°F  
(-40°C to 74°C)
- Operating Humidity: 10% to 90%  
(non-condensing)

### Power

- 0-30 VDC, max current: 250 mA
- Reverse Polarity Protection
- ESD Protection

# DIN Relay

The DIN Relay is an optional but very useful component. It can be used as a networked device to provide general purpose remote relay triggers for signaling various connected devices in the cabinet. When the relays are connected in-line with a device's power supply, the DIN Relay can be used to remotely power cycle a device in the event that it is needed to allow the device to regain functionality. The DIN Relay can be configured to monitor devices and automatically power cycle them when the device fails to respond to a network ping request.



*Fig. 5 DIN relay with LCD display*

## FEATURES

- Pluggable contacts for easier installation
- Relay fuses to protect against over-current
- Self-resetting crowbar over-voltage protection
- HTTPS, SSL, SSH with tighter security
- Internal event notifications
- Wired Ethernet
- Snaps directly to DIN rail or bolts to panel
- LCD Display
- Relay switching power: 10 A at 125 VAC fused at 12 A
- Software controls

## SPECIFICATIONS

### Dimensions

- 6.00" W x 4.25" D x 2.25" T  
(153mm W x 108mm D x 57mm T)

### Weight

- 2.7 lb (1.2 kg)

### Environment

- Operating Temperature: -40°F to 165°F  
(-40°C to 74°C)

### Power

- 12-48 VDC max 5.8 W



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The technical information and recommendations contained herein are believed to be accurate as of the date hereof. All Product, Product specifications and data in this document are subject to change without notice to improve reliability, function, design, or otherwise.

The information provided herein relates only to the specific Product designated and may not be applicable when such Product is used in combination with other materials or in any process not defined herein. All operating parameters, including typical parameters, must be validated for each customer application by the customer/user's technical experts.

Statements regarding the suitability of Products for certain types of applications are based on Rhythm's knowledge of typical requirements that are often placed on Rhythm's Products in generic/general applications. Therefore, it is important that customer/user has thoroughly tested the Products and has understood their performance and limitations before installing them for the final applications.

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