

# PACSystems™ Safety Controller

A cornerstone to your SIL2 safety strategy

## PACSystems™ Safety Controller

Emerson's standalone PACSystems Safety controller is a crucial component of a cost-effective general safety solution, catering to a variety of markets, including Infrastructure, Emergency Shutdown Systems (ESD), Fire & Gas, and Burner Management Systems (BMS). Our stand alone SIL2 Safety Controller is not just a component; it's a cornerstone in the foundation of your safety strategy. Trust in our proven technology to deliver performance, reliability, and ease of integration to your projects.



## High-Performance and Elegant SIL2 Safety Solution

RX3i CPS400 is Emerson's PACSystems Safety controller. This is a compact controller with a large memory capacity to support mission critical applications. An optimal choice for SIL2 applications across diverse markets, this solution stands out for its high-performance capabilities and refined design. With a generous 2000 IO template, our system offers the flexibility needed to accommodate a wide range of applications. Scalable architecture ensures adaptability to evolving project requirements.

Our CPS400 controller is IEC 61508 safety certified, providing a robust foundation for safety-critical applications. Utilizing Black Channel principle over Ethernet Global Data (EGD) communication protocol ensures standardized, secure, and reliable communication. Our safety manual is designed to be user-friendly, offering clear guidance for quick and effective implementation.

The system is built with security in mind, providing a reliable foundation for your critical applications. Rigorous security measures ensure data integrity and protection against potential threats.

## Best-in-Class Redundancy

The controller boasts unparalleled redundancy, setting the standard for reliability in critical applications. Easy configuration within a unified toolchain alongside other PACSystems products ensures seamless integration. PACSystems High Availability control system is built on a scalable, synchronized hot standby redundancy control platform, RX3i CPS400. Providing uninterrupted control of your applications and processes with total transparency.

## Rapid Application Development

Streamline your operations by configuring the entire skid with ease using Emerson controls on PAC Machine Edition. A user-friendly interface simplifies the configuration process for increased efficiency. Accelerate your project timeline with rapid application development using pre-configured templates. Benefit from a quick start which minimizes downtime and maximizes efficiency. Utilize safety-certified function blocks to program your safety system efficiently.

For more information:  
[www.Emerson.com/PACSystems](http://www.Emerson.com/PACSystems)

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## Specifications

### General

- Dimensions: 203.5mm x 56.7mm x 153.6mm (H x W x D)
- Operating System: VxWorks

### Mounting Format

- DIN Rail

### Communications

- Ethernet Global Data (EGD)
- Modbus TCP/IP

### Redundancy Support

- EGD (Simplex or Hot-Standby)
- OPC UA Non-Transparent Server Redundancy

### Power Requirements

- Input Power (Max) – 20 Watts
- Input Voltage (min) – 18 Vdc
- Input Voltage (Max) – 30 Vdc
- Memory Backup Mechanism – Energy Pack: IC695ACC403SN

### Display

- OLED Display

### Program Security

- Secure Boot
- Trusted Platform Module (TPM)

### Environmental

- -40°C to 70°C (Operating)
- IEC/EN 31131-2: 2007 (sections 5 & 6)
- IEC 60068

### Agency Approvals

- UL 61010
- CE
- CSA C22.2 NO. 61010-2-201
- UL Hazloc C1D2
- CCC GB/T 3836.1 & 3836.3
- RoHS
- UKCA

### Safety Agency Approvals

- IEC 61508
- NFPA 72
- NFPA 85
- NFPA 86
- NFPA 87
- EN 54-2

### Program Storage

- RAM – 64 Mbytes
- Non-Volatile Flash – 64 Mbytes
- Energy Pack Capacitors, Life Expectancy – 5 years

### Max IO per System

- 2000

## Ordering Information

Description	Catalog Number	
Controller	IC695CPS400	PACSystems RX3i CPS400 Standalone Safety Controller
	IC695CPS400CA	PACSystems RX3i CPS400 Standalone Safety Controller; Conformal Coated
Battery	IC695ACC403SN	Energy Pack for CPS400 Controller
	IC695ACC403SNCA	Energy Pack for CPS400 Controller; Conformal Coated

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### **Americas Support – Technical and Commercial**

Phone: 1-888-565-4155 or 1-434-214-8532 (if toll free 800 option is unavailable)

Email for Technical Support: **support.mas@Emerson.com**

Email for Commercial Support: **customercare.mas@Emerson.com**

Primary language of support: English

### **Europe, Middle East, & Africa Support – Technical and Commercial**

Phone: +800-4-444-8001 or +420-225-379-328

(if toll free 800 option is unavailable or dialing from a mobile telephone)

Email for Technical Support: **support.mas.emea@Emerson.com**

Email for Commercial Support: **customercare.emea.mas@Emerson.com**

Primary languages of support: English, German, Italian, Spanish

### **Asia Support – Technical and Commercial**

Phone: +86-400-842-8599 for Greater China

+65-6955-9413 (All Other Countries)

Email for Technical Support: **support.mas.apac@Emerson.com**

Email for Commercial Support Asia: **customercare.cn.mas@Emerson.com**

Primary languages of support: Chinese, English

**Support Website:** [www.Emerson.com/IAC-support](http://www.Emerson.com/IAC-support)

**Home Website:** [www.Emerson.com/PACSystems](http://www.Emerson.com/PACSystems)