

Honeywell

THE POWER OF **CONNECTED**

SAFETY MANAGER SC

Ensure safety, simplify operations and
reduce lifecycle costs





TT-2023
67.5 °C

PT-2017
30.5 °C

PT-2019
101.3 barg

PT-2022
145.3 barg

FIC 2130

1014
100.0
0.0
145.3
79.0
0.1

CLOSE

Meet Today's Cost and Complexity Challenges

Industrial process plants are trying to reduce their process control and safety systems complexity, shorten engineering time and lower support costs while improving the overall operations and efficiency of their plant.

Challenges Include:

- Increasing demands on plant safety, availability and cyber security
- Greater emphasis on operational efficiency and process uptime
- Ability to select a system configuration that meets size, redundancy and cost requirements
- Desire for lower initial investment and lifecycle costs
- Difficulty in maintaining multiple vendor platforms for safety applications
- Need to improve project timelines and costs by reducing system configuration, engineering and testing

A growing number of end users are realizing the advantages of standardizing on a single safety system platform and applying it in diverse applications across their plant or enterprise.



Honeywell Understands Safety

Since 1988, Honeywell's safety system solutions have been used to enhance process safety, reliability and availability in over 18,000 installations worldwide. Our company is a recognized leader in integrated control and safety system (ICSS) solutions. Honeywell was one of the first suppliers to earn ISASecure Embedded Device Security Assurance (EDSA) Level 1 and 2 certification, which recognizes our commitment to stringent cyber security in our control and safety systems products.

Unsurpassed Industry Expertise

Honeywell has the knowledge, experience and resources to support the entire safety lifecycle in industries such as refining, oil & gas, and chemicals/petrochemicals. We offer proven solutions for non-SIL, SIL1, SIL2 and SIL3 safety applications such as:

- Process safeguarding and emergency shutdown
- Fire and gas detection
- Burner/boiler management
- Wellheads, skids and pipeline monitoring
- High-Integrity pressure protection systems (HIPPS)
- Critical control

Honeywell understands the demands of dealing with real-time and historical data from modern distributed control and safety systems, and helps customers effectively analyze and manage their data across a secure and tightly integrated ICSS. This approach encompasses alarms, diagnostics, testing, device management, process optimization, data analytics, and more.

Continuous Technology Evolution

Honeywell has a 30-year record of evolving our safety solutions, and preserving safety, security and intellectual property while keeping customers current with the latest technology.

We have updated our best-in-class Safety Manager system to meet the needs of small packaged applications all the way up to large distributed architectures, ensuring optimal plant safety, simplifying operations and reducing support costs.

Introducing Safety Manager SC

Honeywell is introducing a new, enhanced safety system offering to our safety solutions portfolio, Safety Manager SC, based on our proven Series C design. This logical advancement of Safety Manager is designed to minimize adoption and training requirements for end users. Safety Manager SC is a modular, fault-tolerant system capable of solving the most challenging Emergency Shutdown (ESD)/Safety Instrumented System (SIS) applications in the process industries.

Safety Manager SC combines the sleek Series C style and function in a platform providing a compact footprint, efficient installation and maintenance, and long product lifecycle. The new form factor benefits extend to multiple modules, such as the S300 Safety Controller, Universal Safety I/O module and Safety Digital I/O module.

Robust Safety, Easily Deployed

Safety Manager SC provides Safety Integrity Level (SIL) 1–3 capabilities. It is SIL3 certified “out of the box” with no additional engineering required. This even includes non-redundant configurations, without limitations or time restrictions. Safety Manager SC’s design can be optimized to meet the specific needs of end users, engineering firms, OEMs, and other stakeholders. Its small footprint and outdoor cabinet installation capabilities are well suited for distributed applications like those found in the oil & gas production and pipeline industries.

Safety Manager SC has earned ISASecure Level 1 and 2 certification, which addresses the integrity of the embedded device and its production lifecycle, as well as testing against communication robustness, functional security and software development security.

Rigorously Tested, Standards Compliant

Safety Manager SC enables compliance with the latest safety and cyber security standards, providing maximum reliability and availability, and leading to a safe environment, increased production and operational savings.

Compact Size, Scalable Platform

The Safety Manager SC System supports a variety of safety solutions. It is easily configured to meet small to large distributed safety applications requiring varying levels of redundancy. The compact components can be housed in small I/O cabinets and remotely distributed in harsh operating environments. This approach provides important benefits:

- Vertical module carrier design allows easy access for module installation and removal
- Universal channel I/O capability ensures an optimal footprint and lower total installed costs
- Slanted module orientation prevents hot spots and extends the operating temperature range
- Full redundancy provides maximum availability for critical safety applications
- Field power for I/O modules eliminates the need for external loop wiring, as well as additional power system

Unique Design, New Features

Safety Manager SC incorporates the latest Honeywell safety technology developments, including fully redundant architecture, quad processors, multi-fault tolerance, advanced diagnostics, and more. The system offers key features such as:

- Single integrated solution for all safety applications
- Smaller footprint
- New safety processor module
- Cost-effective discrete I/O
- New power supply options
- Expanded Honeywell LEAP™ and Universal I/O capabilities
- Tight operational integration with Distributed Control Systems (DCS) and SCADA platforms
- IEC 61131-compliant engineering tool for programming and diagnostics
- Offline/cloud simulation



Advantages of an Integrated Solution

Cost of ownership is a critical factor in any plant. Complex systems that are difficult to operate and maintain will have higher than optimal costs over their lifecycle. That's where Honeywell's integrated control and safety system can help.

Safety Manager SC was developed to seamlessly integrate with Experion® PKS, the heart of Honeywell's ICSS solution. Experion offers more than a traditional DCS by unifying people with process, business requirements and asset management.

The system meets a host of global standards, including:

- IEC 61508/61511
- SIL1, 2, 3
- ISASecure EDSA Level 1 and 2
- EMC
- CE
- EN54
- NFPA 72, 85, 86, 87
- FM
- CSA Class 1 Div 2
- ATEX Zone 2

With Honeywell's integrated approach to control and safety, users can achieve:

- Reduced number of databases and engineering tools
- Integrated alarms and events
- Improved handling of process control and safety system alarms via Honeywell's Dynamo® alarm and operations management software
- Automated tracking, recording and validation of safety systems and final elements using Process Safety Analyzer (PSA)
- Enhanced collection and storage of sequence of events (SOE) information
- Improved support for field device management using Field Device Manager (FDM)
- Expanded view of system asset health data
- Secure integration with plant sub-systems such as fire & gas, security, etc.

Benefits to Your Operation

Safety Manager SC can help optimize the safety and performance of your industrial process facility. Its unique design simplifies engineering, development and testing, while reducing the time and money needed for spares, training and engineering tools. And, it's all protected against cyber threats as verified by ISA Secure certification.

Ensure better safety: TÜV Rheinland certified the Honeywell SIS solution for use in demanding safety applications up to SIL3. The system is based on a high level of redundancy and diagnostics with selectable features to meet specific application requirements.

Simplify plant operations: Safety Manager SC is designed using three main components, which make it easier to maintain and troubleshoot. Its seamless integration with Honeywell's Experion system, advanced applications and engineering tools provide plant operations with critical information about the system's performance and status.

Reduce system costs: Safety Manager SC is based on Universal I/O technology, allowing each channel to be configured individually to a different I/O type. Also, using LEAP offline virtualization and cloud engineering, the system separates physical from functional design by allowing parallel workflows, standardized designs, and enabling engineering and testing to be done from anywhere in the world.





Why Honeywell?

Industrial organizations can benefit from partnering with a single supplier that can meet all of their process control and safety needs, from advanced systems and applications, to local and remote support services, engineering tools and migration assistance.

Honeywell Process Solutions is a leader in DCS and safety system integration. We are also one of the few vendors that can support the full safety lifecycle. Our innovative LEAP and Universal I/O technology allows for increased flexibility with faster project execution and reduced costs.

Honeywell's safety solution capabilities go beyond supplying just hardware and software. Our regional Centers of Excellence (COEs) and safety knowledge consultants/TUV certified



engineers in North America, Europe, Middle East, and Asia-Pacific deliver turnkey SIL certified safety system solutions and provide local lifecycle services support.

For more information

To learn more about Honeywell's Safety Manager SC, visit www.honeywellprocess.com or contact your Honeywell account manager.

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