01 / Identity and job scope

HONEYWELL

FS-USI-0001

Communication module

Product role

Honeywell FS-USI-0001 provides Ethernet and serial communication between a Safety Manager controller and external systems through four independent channels.

External systems
Ethernet / serial

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FS-USI-0001
Communication handling

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Control Processor
Configured data exchange

Applicability

The listed architecture applies to USI-0001. The supplied FS-USI-0001 identity does not state a revision; V1.1/V1.2 improvements and revision-specific approvals or ratings require the actual unit marking.

Hardware and configuration

FS-USI-0001 is the non-conformal-coated Universal Safety Interface for the Safety Manager controller chassis. A Motorola 8260 processor handles communication to external devices and other Safety Managers. The interface separates external communication handling from the controller safety functions; the complete configured system determines the permitted communication paths.

Planning basis

This Apter Power guide supports identification and engineering planning. Apply the complete manufacturer and machine-builder procedures for the actual installation.

02 / Configuration and interface readiness

Item	Configuration relationship
Interface channels	4 independent channels
Ethernet	2 auto-ranging 10/100 Mb channels
Ethernet connector	RJ45
Serial interfaces	2 general-purpose channels
Serial connector	10-pin AMP
Communication processor	Motorola 8260
Flash memory	8 Mbyte

Technical context

Channels A and B use auto-ranging 10/100 Mb Ethernet through RJ45 connectors and the applicable UCOM-HSE connection arrangement. Channels C and D are general-purpose serial channels using 10-pin AMP connections with the applicable DCOM-232/485 arrangement. Module EEPROM retains specific information including two MAC addresses and the hardware revision. The design has 8 Mbyte Flash, 4 Mbyte local SRAM and 256 kilobyte shared RAM.

Which Ethernet rates does FS-USI-0001 support?

The two Ethernet interfaces automatically select between 10 and 100 Mb operation.

Which connector arrangement is used by FS-USI-0001?

Ethernet uses RJ45 connections; the serial channels use 10-pin AMP connections with the applicable serial interface arrangement.

03 / Installation and connection decisions

Preserve revision identity

Read the full FS-USI-0001 marking and hardware revision before applying revision-specific requirements.

Match external interfaces

Confirm the UCOM-HSE or DCOM arrangement and cable type for each used channel.

Preserve network configuration

Record MAC-related configuration, addressing and the approved communication topology.

Plan communication interruption

Hot swap support does not maintain an unplugged communication link; assess the connected systems before removal.

Installation context

Transmit and receive LEDs report channel activity, while the status indicator distinguishes normal operation, hardware error and power-down or booting. A dedicated watchdog can take communication channels offline on failure. The USI-0001 design supports insertion and removal in a running system without interrupting the application program; communication availability and site procedures still require planning. V1.1 and V1.2 design improvements are revision-specific and must not be assumed for an unidentified unit.

What memory architecture is used by FS-USI-0001?

The design includes 8 Mbyte Flash, 4 Mbyte local SRAM with error detection and correction, and 256 kilobyte shared RAM.

How does FS-USI-0001 report communication and hardware state?

Separate Tx and Rx indicators show channel activity. The status LED is green for no detected hardware error, red for a hardware error, and off during power-down or booting.

04 / Functional acceptance planning

Application	Controlled review
Supervisory communication	Exchange applicable data with Experion PKS through the configured Safety Manager communication architecture.
Engineering access	Provide the supported communication path for Safety Builder within the authorized system configuration.
Controller communication	Use the configured communication channels to interface with other Safety Managers.
Serial device integration	Match the required DCOM-232/485 interface and serial configuration to the connected external device.

Can FS-USI-0001 be removed while the controller is running?

The USI-0001 design supports hot swap without interrupting the application program. Plan the loss of its communication paths and follow the approved system procedure.

Does FS-USI-0001 identify a specific hardware revision?

No revision is included in the supplied model string. Check the unit marking before applying V1.1 or V1.2 design-improvement statements or revision-specific ratings.

Release boundary

Verify intended data exchange and the approved control-program handling of communication failure.

Record
Keep the original configuration

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Test
Observe controlled response

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Release
Authorize normal operation

05 / Technical handover and support

Retained information

Keep the complete FS-USI-0001 marking, host identity, connection photographs, configuration backup and controlled-test results in the service record.

Support planning

Confirm current support and replacement guidance with Honeywell for the installed identity and configuration. Apter Power availability and dispatch are separate quotation matters.

Reference basis

Honeywell Safety Manager Hardware Reference, EP-SM.MAN.6284, Release 151, Issue 1.0 Revision 2.

Apter Power technical summary. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Honeywell FS-PDC-FTA24P

Honeywell FC-FANWR-24R

Honeywell FC-DCOM-232/485

Discuss your installed configuration

Send the full unit marking and connection details.

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