

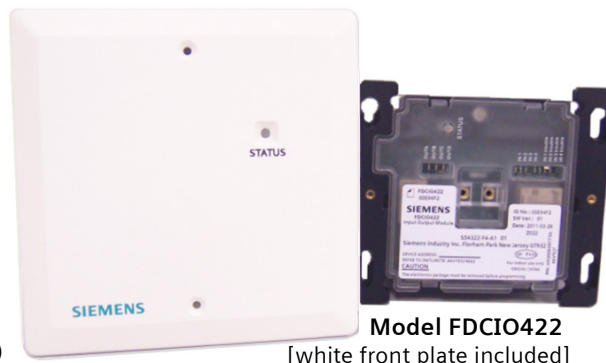
Intelligent Peripheral Devices

4-Input / 4-Output Interface Module

Model FDCIO422

ARCHITECT AND ENGINEER SPECIFICATIONS

- Four (4) inputs / four (4) outputs via one (1) address
- Light-emitting diode (LED) screen of all input / output functions
- Input lines can be supervised for open, short and ground-fault conditions
- Supports 'Class A' and 'Class B' input-circuit wiring
- Polarity insensitive utilizing *SureWire™* technology
- Microprocessor-controlled signal evaluation
- Two-wire installation, per addressable loop
- Power supply via C-NET module
- Communication via C-NET
 - Individual addressing
- Four (4) AC-rated / DC-rated outputs
- Mounts in one (1) electrical back box
 - Optional 12 cm. and 12.7 cm. square back boxes
- Restriction of Hazardous Substances (RoHS compliant)
- Electronic address programming is easy and dependable
- Easy front-end access to programming port and wiring terminals
- Model 8720 / DPU programs and verifies device's address, as well as performs test functionality
- ULC Listed;
 - FM (#3230), CSFM (#7165-0067:0264) and NYC Department Approved



Model FDCIO422
[white front plate included]

Product Overview

The four (4) input / (4) output interface module (Model FDCIO422) from Siemens — Fire Safety is designed to provide the means of interfacing direct shorting devices to the Device Loop Card (Model DLC); FireFinder® XLS, as well as the Cerberus PRO fire-alarm control panels (FACPs).

Model FDCIO422, which contains microcomputer-chip (*SureWire*) technology and is polarity insensitive, achieves the state of an 'intelligent device' through its highly advanced method of address programming and supervision — combined with its sophisticated, bi-directional FACP communication.

The relays and contact device inputs for Model FDCIO422 are controlled at the same address. From the FACP, the relays and input contacts can be controlled as a separate function. The relay is typically used where control or shunting of external equipment is required. Four (4) independent in/out circuits are permissible on one (1) Model FDCIO422 module.

Model FDCIO422 is designed to monitor Normally Open (N.O) or Normally Closed (N.C) dry contacts. Each interface module reports the status of the (N.O) or (N.C) to the FACP.

Cerberus® PRO

Fire Safety Products

Specifications

Model FDCIO422 is used for the connection of up to two (2) independent (2 –x– 2) 'Class A' or four (4) independent 'Class B,' dry and N.O configurable contacts. Input lines can be supervised for open, short and ground-fault conditions (depending on end-of-line [EOL] termination resistor and class configuration).

Inputs can be independently configured, via the FACP, for *Alarm, Trouble, Supervisory* or *Status* zones.

Model FDCIO422 has four (4) programmable outputs with four (4) potential free-latching-type 'Form A' (dry) relay contacts for fire-control installations.

The FACP's C-NET module provides supervised, power-limited power supply for Model FDCIO422. The four (4) input / (4) output interface module provides status indication per LED for each input / output, plus one (1) LED for general device status. Also included with Model FDCIO422 are four (4) EOL devices of 470 ohms (Ω), as well as three (3) separators to split power-limited wiring from non-power-limited wiring.

9905C

Four (4) In/Out Interface Module

Specifications – (continued)

Separators are delivered in the following sizes:

- ✓ 12 cm. [4^{-11/16} –inch] back box
- ✓ 12 cm. [4^{-11/16} –inch] extension ring

Note: Optional 12.7 cm. back boxes are available exclusively via Randl Industries, Inc.

Model FDCIO422 has a multi-color LED that flashes **GREEN** when operating in 'normal' (standby) condition; **AMBER** if unit is in a *Trouble* event, and **RED** to indicate a change of event status.

Model FDCIO422, which is fitted with screw terminals for connection to an addressable circuit, is fully compatible on the same circuits all Siemens Model 'H'-series detectors; Model 'HMS'-series addressable manual stations, or any other addressable intelligent modules, such as Model HZM or Model HCP.

Field-Device Programmer / Test Unit

Model FDCIO422 is compatible with the Siemens field-device programmer / test unit (Model DPU / 8720), which is a compact, portable and menu-driven accessory for electronically programming and testing Model FDCIO422 easily and reliably.

Model DPU / 8720 eliminates the need for cumbersome, unreliable mechanical programming methods — such as dials or rotary switches — and reduces installation and service costs by electronically programming and testing the detector prior to installation (via the interface's microcomputer-chip, non-volatile memory).

For proper operation of Model DPU / 8720, the technician selects the accessory's program mode, and enters the desired address. In turn, Model DPU / 8720 automatically sets and verifies the address, as well as tests Model FDCIO422. When in the 'test' mode, Model DPU / 8720 will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

Model DPU / 8720 operates on AC power or rechargeable batteries, providing flexibility and convenience in programming and testing equipment from practically any location. Further, vibration, corrosion and other conditions that deteriorate mechanical-addressing mechanisms are no longer a cause for concern.

Electrical Ratings

Voltage Rating:	12VDC – 32VDC
Maximum Voltage: (C-net modules)	32VDC
Operating current: (quiescent)	1mA
Peak Current:	1.92mA, max.

Supervised switch ratings


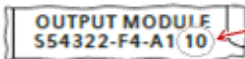
Monitoring Voltage:	3VDC
Cable-length input:	61 meters (200 feet), max.
Input-shielding cable-length range:	9.14m – 61m (30 ft – 200 ft)
C line-to-line:	0.02 µF, max.
C line-to-shield:	0.04 µF, max.
Line Sizes American Wire Gauge (AWG)	14 AWG, max; 18 AWG, min.

Technical Data

Communication Protocol:	C-net (supervised signaling-line circuit, power limited)	
Storage Temperature Range:	-30° – +60 °C (-22° – +140 °F)	
Operating Temperature Range:	0° – +49 °C (+32° – +120 °F)	
Relative Humidity:	5 – 85 % (non freezing and condensing at low temperature)	
P R O D U C T I O N S	Color:	Carrier: RAL 9017
	Cage Cover:	Transparent
	Cage:	RAL 9017
	Faceplate:	White
	Dimensions: { W - x - H - x - D }	12 cm. -x- 12 cm. -x- 3.1 cm. (4" -x- 4.7" -x- 1.2")
	Weight:	454 g. (1 Lb.)
Volume: (cage and carrier)	29.7 cm ³	

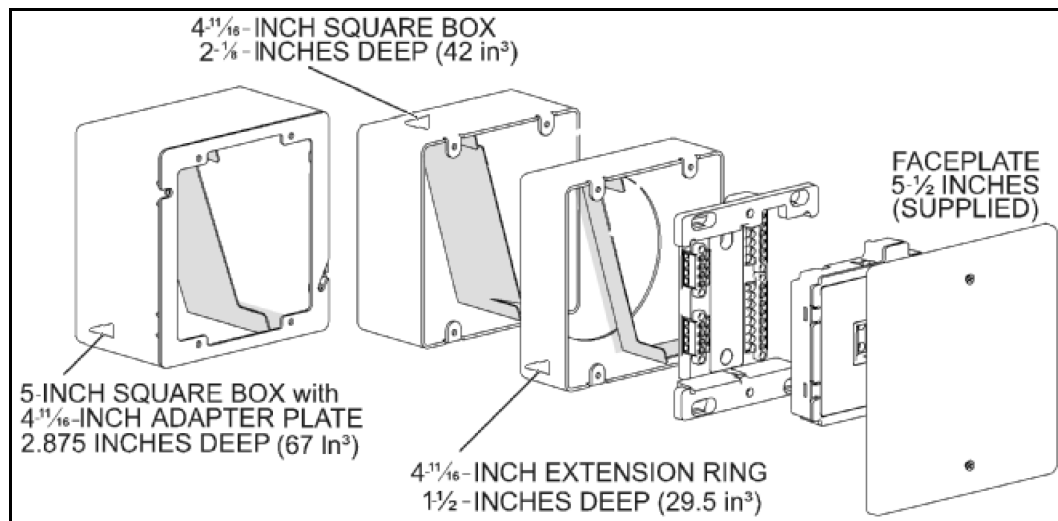
Notes:

- AC output ratings are only applicable to Model FDCIO422 interface modules that have Engineering State (ES) version '10' or higher.
- The part number (S54322-F4-A1) for Model FDCIO422 is found on the back of each interface module, and the ES version is placed just the right of the part number (See **Page 3** for an illustration).
- Refer to Installation Operation Manual, IOM: A6V10324662, for further details.

	NOTICE
	<p>AC ratings must not be used with modules with ES less than 10. The ES number can be found on the label:</p> <div style="text-align: center;">  ES </div>

Mounting Diagram

— Model FDCIO422 Control-Module (Supplied) Barrier —



FACP Compatibility Table

Model	Data Sheet Number	Description
FC922	9815C	252-point system (networkable)
FC924	9815C	504-point system (networkable)

Details for Ordering

Model	Part Number	Description
FDCIO422	S54322-F4-A1	Four (4) Input / Four (4) Output Interface Module
FDCIO422-EOL	S54312-F7-A1	End-of-Line (EOL) Resistor {100 Ω ±1% ½ W}
TB-EOL	S54322-F4-A2	TB - EOL Terminal



Model FDCIO422-EOL
[End-of-line resistor]

Optional Accessories

[available via Randl Industries, Inc.]

Part Number	Description
M-411000	12 cm. [4 ¹¹ / ₁₆ -inch] adapter plate
T55017	12 cm. [4 ¹¹ / ₁₆ -inch] back box
T55018	12.7 cm. [5-inch] back box
T55019	12.7 cm. [5-inch] back box

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NOTICE — The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The devices described here have specific instruction sheets that cover various technical, limitation and liability information.

Copies of these instruction sheets and the *General Product Warning and Limitations* document, which also contains important information, are provided with the product and, are available from the Manufacturer.

Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.