

Overview

The ACURS2 and ACURS4 networked intelligent controller panels operate with GE integrated security management platforms. Panels offer a wide range of features and flexibility, with a focus on reliability, durability, and ease of installation and maintenance. ACURS series panels are designed with a sophisticated 32-bit platform, 90 MHz microprocessor, and configured with 16 megabytes of memory. This robust architecture allows high-speed processing of access and alarm transactions. Each panel supports high-capacity local storage; and up to 100,000 cardholders.

The ACURS2 supports direct connection of two card readers, and the ACURS4 supports direct connection of four card readers. With the use of RRE Remote Reader Electronics interfaces and additional card readers, the ACURS total reader support may be expanded to four (on an ACURS2) or eight (on an ACURS4).

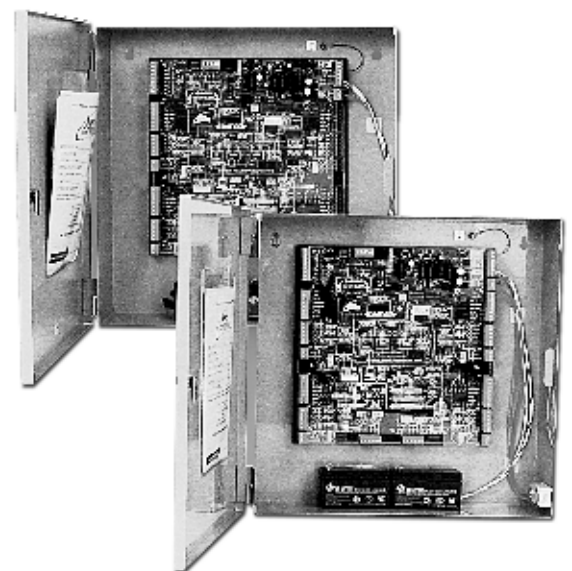
Onboard programmable relays and supervised alarm inputs are provided on each panel. I/O capability can also be expanded through the use of RIM Remote Alarm Input Modules and RRM Remote Relay Output Modules connected remotely through a simple multi-drop RS-485 interface. ACURS2 and ACURS4 panels include an onboard, high-speed LAN interface for connection to the server. Panels also support connections to the server through multi-drop RS-485, RS-232, and dial-up connections.

Standard Features

- Support for a wide range of readers, devices, and card formats
- Large storage capacity – up to 100,000 cardholders in each panel
- Auxiliary supervised inputs and programmable auxiliary relays
- Onboard 10Base-T LAN port for network communication
- Optional dial-up capability for remote database download, historical activity and alarm reporting
- Firmware stored in FLASH memory for easy updates from the server via LAN/WAN, RS-485, RS-232, or dial-up connections
- Slip-hinge, metal enclosure with tamper switch provides ease of installation and service, as well as security
- Onboard battery charger with batteries that serve the ACU board and directly connected readers

Networked Intelligent Controllers

ACURS2 & ACURS4



ACU Features and Benefits

ACURS2 and ACURS4 panels provide the flexibility and reliability needed to meet today's complex integrated security management and alarm monitoring requirements. All card access decisions and alarm monitoring activities are performed locally at the ACURS2 and ACURS4 panel, based on parameters that are downloaded from the server. These local control capabilities minimize network traffic and optimize processing time for card access transactions. Local access control processing continues even in the unlikely event that communication with the server is lost.

Reliable monitoring

The ACURS2 supports direct connection of two Wiegand output readers/keypads. The ACURS4 supports direct connection of up to four Wiegand output readers/keypads. The panel provides all of the onboard alarm inputs and relay outputs necessary to support the operation of access-controlled doors including door position switch, request-to-exit device, and electric door release hardware. Additional relay outputs and supervised inputs are provided for other control or monitoring applications. I/O capabilities can be expanded through the use of RIM Remote Alarm Input Modules and RRM Remote Relay Output Modules connected remotely, through a simple multi-drop RS-485 interface. This reduces wiring and installation costs by placing alarm input points and control relays close to the place where they are needed.

Powerful database

The local database of an ACURS2 and ACURS4 panel is configured with 16 MBs of battery-backed-up RAM that enables the local database to store up to 100,000 card records, including associated PIN, time and holiday schedules, door access authorization parameters, and more.

When a cardholder presents a card to a reader, the panel quickly retrieves the card record from its local database and determines if the individual is authorized for entry at the associated door, during that day and time. The panel then activates the appropriate lock control relay, if access is authorized. When the transaction is complete the access event is transmitted to the server for storage on disk. If the panel is off-line from the server, the event is stored locally until communication is restored, after which all locally stored events are uploaded to the server for archive display and report generation.

Dynamically allocated memory

ACURS panels store a minimum of 10,000 event transactions in local memory. The actual number of transaction events that may be stored is dynamically allocated within the 16 MB of available memory, depending on the number of cardholder records in the panel. The method of storing and uploading access events also applies to alarms and other events.

Cost-effective communications

Each ACURS2 and ACURS4 panel communicates with the server through an industry-standard LAN connection. Panels also support communication with the server through multi-drop RS-485, RS-232, or through an optional dial-up configuration; using a standard telephone line. When an ACURS2 or ACURS4 communicates with the server through a LAN connection, additional panels may be connected downstream via multi-drop RS-485. This reduces cost and the number of facility IP addresses required to support additional panels.

Sturdy enclosure, redundant power supplies

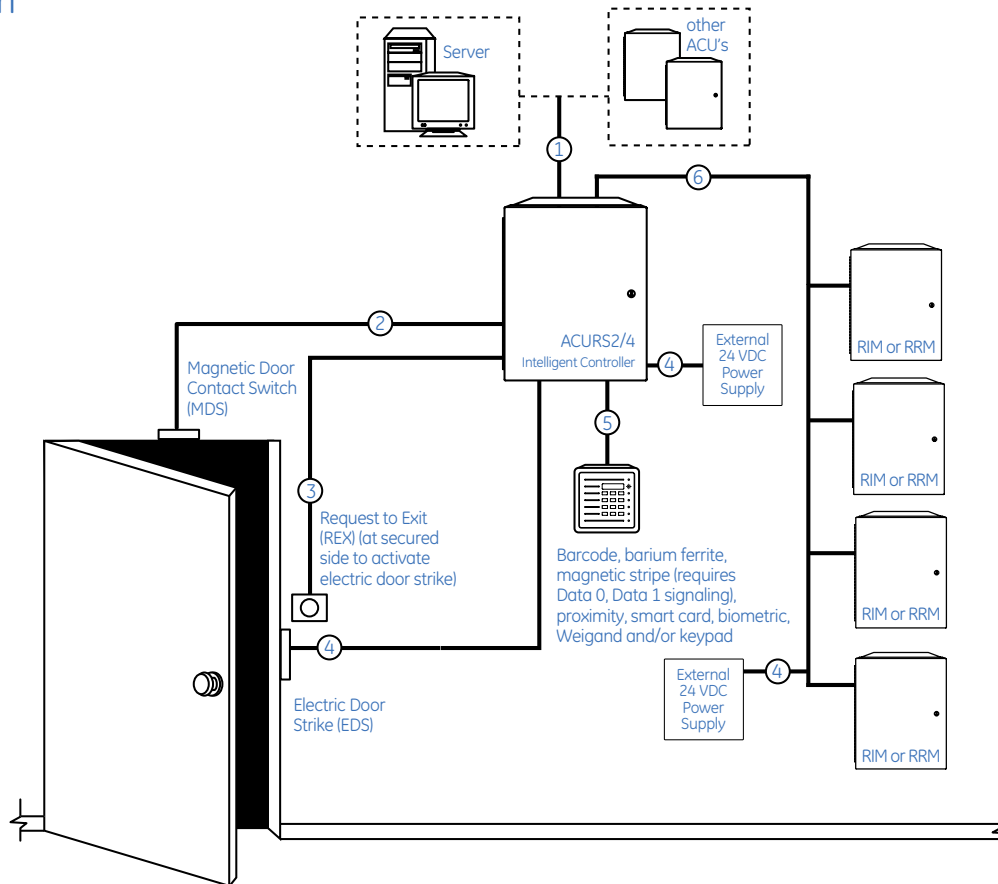
ACURS electronics are mounted in a sturdy metal enclosure that is configured with a removable hinged door, keyed lock and a cabinet tamper switch. Standard configurations include an external plug-in transformer that provides power to the unit, a built-in battery charger, and a set of batteries to support the unit's operation during a power failure. Backup batteries supply power to the main ACURS electronics, readers connected directly to the panel, built-in communication devices (LAN and serial), and the optional dial-up modem. All door strikes and any external reader, input modules, output modules, card readers and associated devices are powered separately.

The ACURS2 and ACURS4 are also available in configurations with a 5-amp UPS-ready power supply. These configurations supply power to the main ACURS electronics, readers connected directly to the panel, built-in communication devices (LAN and serial), the optional dial-up modem, as well as external reader, input modules, output modules, card readers and most door locking devices. When used with optional 12V/7Ah batteries, the ACURS will support full operation of all devices.

Support Summary

Readers	Magnetic stripe, Wiegand, barium ferrite, proximity, barcode, biometric, and smart card technologies, keypad, or combined reader/keypad.
Card formats	Variable card formats to enable the use of a facility's existing cards. Also supports multiple site or facility codes.
Storage	16 MB memory supports local storage and control of up to 100,000 cardholders in each panel.
Devices	Door devices including control of electric door hardware and supervised monitoring of door contacts and request-to-exit devices. Also supports elevator control.
Auxiliary supervised inputs	Motion detectors, glass break sensors and other alarm devices.
Programmable auxiliary relays (outputs)	Activation of local annunciators and other output-controlled devices.
Networking	Onboard 10Base-T LAN port for network communication. ACU panels may be multi-dropped (via RS-485) down-line from an ACURS panel connected to the server through a LAN.

Configuration



Cable #	Description	Belden Cable Number (or equal)	Max. Distance
1	Communication (RS-485) OR 10Base-T LAN	#9842 or Alpha #6222C, 24 AWG, 2-pair, individual shields, braid overall shield Category 5 (4PR)	4,000' (1,220 m) end-to-end
2	Door Contact Input	#9407-22 AWG, 2-conductor (unshielded)	1,000' (305 m)
3	Exit Request Button / Sensor Input	#9407-22 AWG, 2-conductor (unshielded) 2 additional conductors required if sensor is powered	1,000' (305 m)
4	Door Lock Control from Controller or External power	#9409-18 AWG, 2-conductor (unshielded)	1,000' (305 m)
5	Standard Reader	Varies with type of reader/keypad. See manufacturer's installation instructions.	varies
6	Communications (RS-485) to Remote Modules	#9842-24 AWG, 2-pair/individual shields	4,000' (1,220 m)

North America
T 888-GE-SECURITY
888-(437-3287)
F 561-998-6224
E rs-bctinfo@ge.com

Asia
T 852-2907-8108
F 852-2142-5063

Australia
T 61-3-9239-1200
F 61-3-9239-1299

Europe
T 32-2-725-11-20
F 32-2-721-40-47

Latin America
T 305-593-4301
F 305-593-4300

gesecurity.com

Specifications subject to change without notice.

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Specifications

System Compatibility	Facility Commander™ Wnx, Diamond II, Sapphire Pro
Dimensions	Height: 16.25" (41.28 cm) Width: 16.375" (41.59 cm) Depth: 4.125" (10.48 cm)
Weight (with batteries)	19 lbs. (8.6 kg)
Environmental	Maximum: +65 °C (+150 °F) Minimum: 0 °C (+32 °F) Humidity: 0 to 95% relative
Power	Input, 24 VAC at 40 VA Battery backup 24 VDC (batteries optional) 24 VDC external plug-in power supply (optional) Optional models with 5A UPS-ready internal power supply
Reader Capacity (Wiegand output only)	ACURS2: 2 readers (4 with addition of RRE Reader Interface Electronics) ACURS4: 4 readers (8 with addition of RRE Reader Interface Electronics)
Memory	16 MB RAM, battery-backed-up FLASH ROM
Processor	32-bit Motorola ColdFire

Ordering Information

ACURS02-E1L05A	ACURS2 - 2-reader panel, serial & LAN, w/Key-locked enclosure, 5A BBU Power Supply (batteries optional)
ACURS02-E0005A	ACURS2 - 2-reader panel, serial & LAN, w/backplate, no enclosure, 5A BBU Power Supply (batteries optional)
ACURS02-E1L00A	ACURS2 - 2-reader panel, serial & LAN, w/Key-locked enclosure, no Power Supply
ACURS02-E0000A	ACURS2 - 2-reader panel, serial & LAN, w/backplate, no enclosure, no Power Supply
ACURS04-E1L05A	ACURS4 - 4-reader panel, serial & LAN, w/Key-locked enclosure, 5A BBU Power Supply (batteries optional)
ACURS04-E0005A	ACURS4 - 4-reader panel, serial & LAN, w/backplate, no enclosure, 5A BBU Power Supply (batteries optional)
ACURS04-E1L00A	ACURS4 - 4-reader panel, serial & LAN, w/Key-locked enclosure, no Power Supply
ACURS04-E0000A	ACURS4 - 4-reader panel, serial & LAN, w/backplate, no enclosure, no Power Supply

