KT-400

Powerful, Ethernet-Ready Four-Door Controller

Features That Make a Difference

- Supports four readers and expand inputs, outputs, and relays with the addition of expansion modules
- Onboard Ethernet 128-bit AES-encrypted communication with the EntraPass system ensures a high degree of network security
- Control the occupancy level in a defined location with the anti-passback feature
- 100,000 card capacity and provides up to 20,000 concurrent events in stand-alone mode
- Removable terminal blocks help expedite installation and enhance serviceability
- 256 inputs (16 onboard with high security double end-of-line resistor configuration) and 256 outputs (four onboard) provide scalability
- Communicates with the EntraPass Gateway only when an event has occurred, ensuring low network bandwidth consumption (Special and Corporate Editions only)
- Verify and configure IP settings with a built-in web configuration page
- Supervised door lock outputs with internal or external power supply
- LEDs provide important controller status and diagnostic information
- Additional battery supervision and monitoring help ensure controller functionality

Kantech™ KT-400 is an Ethernet-ready four-door controller that provides 128-bit AES-encrypted communication with the EntraPass system and is a highly secure solution for any security-conscious business. KT-400 can easily be integrated into an existing EntraPass system with other Kantech controllers (KT-100 and KT-300) or can provide the foundation for a brand new security installation. With an embedded Ethernet port, IP connectivity is effortless.

Initially available with 16 onboard inputs and four onboard outputs, KT-400 is easily expandable to 256 inputs and relay outputs. The expansion modules are added using removable SPI cables with built-in connectors for quick connectivity.

KT-400 works with any EntraPass system (Special, Corporate, and Global Editions) to provide customers with a solution they can use across their entire corporation, even in the most challenging types of applications. With a card capacity of 100,000 and up to 20,000 concurrent events in stand-alone mode, KT-400 is the perfect solution whether installed at the corporate headquarters with thousands of employees or at regional locations with only a few employees. You are ensured that the same security policies and procedures are implemented across the entire corporation.

LED status indicators help you to diagnose or react to controller issues quickly. With a variety of status indicators, you can view and quickly handle system duress. These security features significantly reduce the risk of system downtime by alerting you to controller issues, power status, and network and outputs activity.

tyco

features

Easy Network Connectivity

You can save valuable time and money with the addition of the KT-400 Ethernet port. With embedded IP connectivity, an external IP device is no longer required to connect to the network. In addition, the 10/100Base-T Ethernet port provides faster connectivity. The onboard port is dual-sensing which means the system senses whether the connection is 10Base-T or 100Base-T and adjusts automatically.

Easy Setup with Removable Terminal Blocks

In order to expedite installation and facilitate serviceability, KT-400 features removable terminal blocks that are simple to connect and are color-coded for quick identification. This prevents an installer from wasting valuable time figuring out where to attach each wire.

Built-in Web Configuration

Use the built-in web configuration page, which is accessible through any Internet browser, to quickly verify and configure the IP settings of KT-400. For enhanced security, once KT-400 is configured and settings are accepted, the web page cannot be accessed again. If a configuration error is made, the board can be reset to factory default and the web page will be available again through the Internet browser.

Control Occupancy Levels with Anti-Passback

KT-400 supports occupancy restrictions for four local areas at the controller level with the anti-passback feature. This feature allows you to define a particular area that may have capacity limitations, such as an auditorium, conference room, or laboratory. You can configure KT-400 to limit the amount of people permitted into this area. Once the limit has been reached, no additional personnel will be allowed to enter the defined location. This prevents overcrowding or violation of capacity regulations.

Low Bandwidth Consumption

Unlike similar real-time devices, KT-400 manages network polling and communicates with the EntraPass Gateway only when an event has occurred. Communication integrity is ensured through a heartbeat signal which is sent at regular intervals to the EntraPass system. This asynchronous communication significantly reduces the amount of bandwidth required to manage your access control system over the network. The communication link is monitored by KT-400 for enhanced security. If there is communication failure between KT-400 and EntraPass, an alarm will be triggered in the EntraPass system for immediate repair.

Supervised Lock Power for Added Flexibility

KT-400 receives 12 to 24 VDC for up to 3 amps of supervised lock power with an external power source for added flexibility.

Choose a Controller Configuration That Makes Sense for Your Application

KT-400 provides multiple controller configurations to suit your specific access control needs. These configurations provide communication with any device on the network for more connection options. You can choose any of the following options:

- IP (Ethernet)
- RS-485 (COM1) for communication between EntraPass Gateway and KT-100, KT-200 (on a separate loop), KT-300, and KT-400
- RS-232 (COM3) for direct connection to the EntraPass Gateway

More Flexibility with Expansion Modules

There are 16 onboard inputs on KT-400. Up to 240 more can be added through the addition of expansion modules for a total of 256 inputs. Each input can be individually used for a variety of applications including door contact, request to exit detectors, external alarm system zones, and more.

Additionally, there are four onboard relay outputs, and up to 256 relay or open drain outputs can be supported through the addition of expansion modules. For quick service and troubleshooting, the modules can be added using SPI cables with built-in connectors.

Configurable Reader Outputs for Added Security

There are four different outputs for each of the four onboard reader interfaces for a total of 16 programmable outputs. The reader outputs provide a user with visual and/or audible feedback (from the buzzer on the reader) on ongoing access events.

End-of-Line Resistors Provide an Added Layer of Security

The 16 onboard inputs can be individually configured with or without single or double end-of-line resistors to monitor more states associated with a customer's installation, significantly increasing the level of security.

Model Numbers

KT-400

KT-400 . . . . KT-400 four-door controller, IP-ready, accessory kit (KT-400-ACC), metal cabinet (KT-400-CAB) with lock (KT-LOCK)

KT-400-EU . . . . KT-400 four-door controller, IP-ready, accessory kit (KT-400-ACC), metal cabinet (KT-400-CABEU) with lock (KT-LOCK), European Union model

KT-400-PCB. . . . . KT-400 four-door controller (PCB only), IP-ready, accessory kit (KT-400-ACC)

Expansion Modules

KT-MOD-INP16 . . . . KT-400 Expansion Module, 16 zone input with SPI cable (KT-MOD-SPI-16)

KT-MOD-REL8 . . . . KT-400 Expansion Module, eight-relay with SPI cable (KT-MOD-SPI-16)

KT-MOD-OUT16. . . . . KT-400 Expansion Module, 16-output with SPI cable (KT-MOD-SPI-16)

KT-MOD-CAB. . . . . KT-400 Expansion Module cabinet, black, with 92 cm (36 in) SPI cable (KT-MOD-SPI-36) and lock (KT-LOCK)

KT-MOD-CABEU . . . . KT-400 Expansion Module cabinet, black, with 92 cm (36 in) SPI cable (KT-MOD-SPI-36) and lock (KT-LOCK), European Union model

KT-MOD-SPI-16 . . . . Expansion Modules SPI cable 41 cm (16 in)

KT-MOD-SPI-36 . . . . Expansion Modules SPI cable 92 cm (36 in)

KT-400 Starter and Expansion Kit

SK-CE402 . . . . KT-400 Starter Kit includes: EntraPass Corporate Edition software CD ROM, KT-400 controller (1), P225XSF reader (4), USB-485 converter (1), TR1675 transformer (1), KT-BATT-12 battery (1), and P40KEY keyfob (5)

SK-CE403 . . . . KT-400 Starter Kit includes: EntraPass Corporate Edition software CD ROM, KT-400 controller (1), P325XSF reader (4), USB-485 converter (1), TR1675 transformer (1), KT-BATT-12 battery (1), and P40KEY keyfob (5)

EK-400. . . . . KT-400 Expansion Kit includes: KT-400 controller (1),TR1675 transformer (1), and KT-BATT-12 battery (1)

EK-402. . . . . KT-400 Expansion Kit includes: KT-400 controller (1), P225XSF reader (4), TR1675 transformer (1), and KT-BATT-12 battery (1)

EK-403. . . . . KT-400 Expansion Kit includes: KT-400 controller (1), P325XSF reader (4), TR1675 transformer (1), and KT-BATT-12 battery(1)

Accessories

KT-400-ACC. . . . . KT-400 Accessory Kit includes: Four 1.0 K ohm, 32/5.6 K ohm resistors, ground wire, and screwdriver

KT-400-CAB. . . . . KT-400 black metal cabinet with lock (KT-LOCK)

KT-400-CON . . . . KT-400 removable terminal block spare kit

KT-ACPW-LED. . . . . UL AC power LED indicator

KT-3LED-PLATE . . . . UL-listed alarm, three-color LED indicator mounted on single gang plate

KT-TAMPER. . . . . Tamper switch for KT-NCC-CAB, KT-300CAB, and KT-4051CAB metal cabinets

KT-LOCK . . . . Lock for KT-NCC-CAB, KT-300CAB, and KT-4051CAB metal cabinets, and two keys

Power Supply

TR1675 . . . . KT-400 transformer, wire-in, 120 VAC/ 16.5 VAC (75 VA), UL approved

KT-SW1224 . . . . KT-400 power supply, 12 VDC, 2 A

KT-BATT-12 . . . . KT-400 gel cell battery, 12 V, 7 Ah

KT-BATT-1212 . . . . KT-400 gel cell battery, 12 V, 12 Ah

KANTECH™

SPECIFICATIONS

Physical

Cabinet Dimensions
(H x W x D) . . . . 37.59 x 30.48 x 12.57 cm
(14.8 x 12.0 x 4.95 in)
PCB Dimensions . . . . 22.86 x 13.97 x 5.20 cm
(9.0 x 5.5 x 2.04 in)
Cabinet Weight
KT-400 . . . . 4.0 kg (8.82 lb)
KT-400-EU . . . . 4.8 kg (10.6 lb)

Environmental

Operating Temperature . . . . . . 2° to 49° C (35° to 120° F); indoor use only
Humidity Level . . . . 0 to 85% relative humidity non-condensing

Electrical

Power Input
KT-400 . . . . 16.5 VAC, 75 VA, Class 2 transformer
KT-400-EU . . . . 240 VAC IN/ 16.5 VAC, 100 VA, transformer included
Battery Backup. . . . . 12 VDC/ 7 or 12 Ah battery supervised; up to 12 hours of operation
Reader Power Output. . . . . . . Maximum 500 mA @ 12 VDC, typical 125 mA per reader or 400 mA @ 5 VDC, typical 100 mA per reader, protected and supervised. The combined reader current cannot exceed 500 mA @ 12 VDC or 400 mA @ 5 VDC.
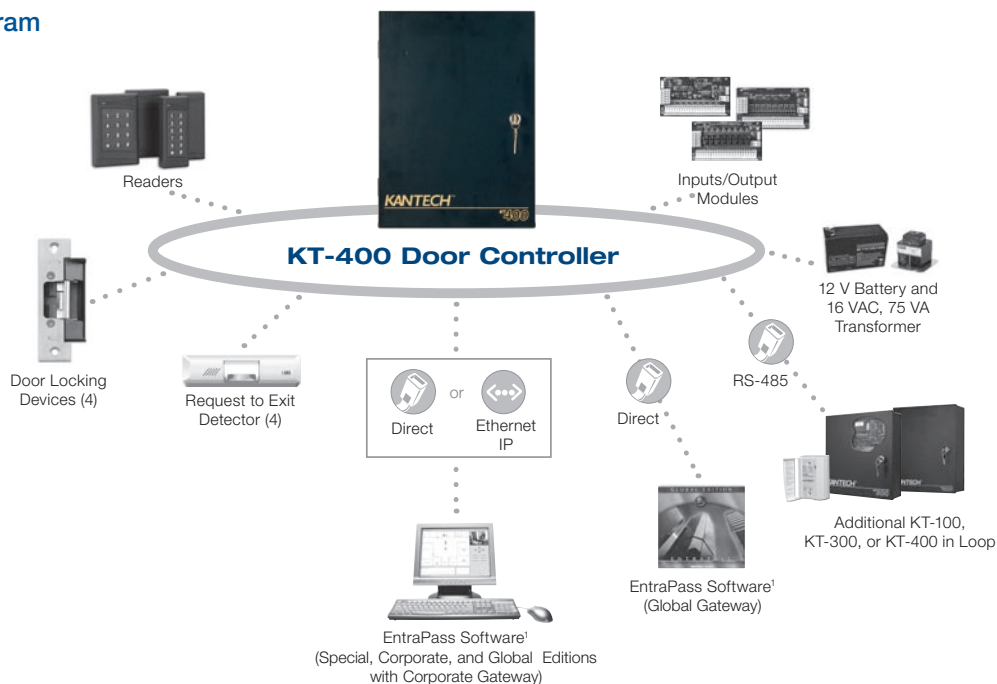
Operational

Reader Types . . . . Wiegand, proximity, ABA clock and data, bar code, magnetic, integrated keypad, smart card
Monitored Points (Inputs) . . . . 16 monitored points, single end-of-line (EOL), double EOL
Points Maximum Wiring . . . . . AWG #22 – 600 m (2,000 ft)
Door Strike Power . . . . 12 VDC, 250 mA maximum each, supervised

Reader Outputs . . . . 16 outputs, 25 mA maximum each, open collector outputs
Auxiliary Outputs. . . . . LEDs (door 1, door 2, door 3, door 4, LED, OUT1 and OUT2) and buzzers (Buz, door 1, door 2, door 3, door 4) 25 mA each, open collector outputs
Controlled Output Relay . . . . . Four onboard Form C controlled outputs relay, 30 VDC, 3 amp max each
Communication Ports. . . . . . . RS-232 (1) with RJ-12, RS-485 (1), Ethernet 10/100Base-T with RJ-45 (1)
Expansion Port . . . . SPI 6-pin connector (1), bi-directional data exchange supported. Supplies 12 VDC, 500 mA maximum shared with 12 VDC auxiliary port
Auxiliary Port . . . . Auxiliary 12 VDC (1), 500 mA maximum shared SPI expansion port
Communication Speed. . . . . . Up to 115,200 baud (automatic detection) over RS-232 and RS-485; 10/100Base-T over Ethernet
Flash Memory. . . . . 16 MB for application storage
RAM. 64 MB for application loading and running, protected by a Lithium-Ion battery for a minimum of 75 hours
Network Autonomy. . . . . Distributed data and processing
External Lock Power. . . . . 12 or 24 VDC (up to 28 VDC) supply up to 750 mA per lock for a total of 3 amp

Regulatory

EN61000-6-1, EN61000-6-2, EN55022
FCC Class A
UL-294, UL-1076
RoHS
WEEE

Basic System Diagram

Readers
Inputs/Output Modules
KT-400 Door Controller
12 V Battery and 16 VAC, 75 VA Transformer
Door Locking Devices (4)
Request to Exit Detector (4)
Direct or Ethernet IP
Direct
RS-485
Additional KT-100, KT-300, or KT-400 in Loop
EntraPass Software[1] (Global Gateway)
EntraPass Software[1] (Special, Corporate, and Global Editions with Corporate Gateway)

(1) KT-400 is only available with EntraPass v4.01

tyco