

### 1. Introduction

The **KT-MOD-REL8** is an 8-relay outputs expansion module used as general relays or elevator control outputs.

The module supports daisy chaining which can add up to 32 **KT-MOD-REL8** modules for a total of 256 external relays per **KT-400** controller. You can mix relays and outputs in the same SPI group, up to 256 outputs.

**Note 1:** The **KT-400** SPI port maximum current draw, when the 12V AUX terminals are not used, is 500 mA.

**Note 2:** External power supply (12 VDC, 2 Amps) is required when the total current draw exceeds 500mA on the SPI Port.

**Note 3:** There are already 4 relays available on the **KT-400**. Make sure to check the relays number assignments to prevent redundancy unless it has been planned on purpose.

### 2. Specifications

- Maximum Current Draw: up to 330 mA per module
- Each relay supports the 2 conditions, NO (Normally Open) and NC (Normally Closed), the C (Common) terminal is +12 VDC
- Each relay has its own LED to indicate status, ON for active
- Eight (8) programmable relay contacts rated 30 VDC, 3 A
- Can be used for elevator control
- Can be mixed with output module **KT-MOD-OUT16** in the same group

### 3. Installing the KT-MOD-REL8 Module

#### 3.1. Unpacking

The **KT-MOD-REL8** package includes the following parts:

- One (1) module - 14 cm x 8 cm (5.7 in x 3.25 in)
- One (1) SPI cable with 1 SPI connector 41 cm (16 in)
- Four (4) plastic standoffs
- Two (2) installation sheets, English and French

#### 3.2. Mounting

The **KT-MOD-REL8** can be installed inside a compatible cabinet (**KT-MOD-CAB** or **KT-400**) or mounted in a dry and secure location at less than 1 m (3 ft) from the **KT-400**.

Perform the following steps to mount the unit:

1. Press the four (4) plastic standoffs through the mounting holes of the cabinet,
2. Secure the cabinet to the wall in the desired location. Use appropriate wall anchors when securing the cabinet to drywall, plaster, concrete, brick or other surfaces,
3. Press the module into the plastic standoffs to secure the module to the cabinet.

#### 3.3. Installation and Wiring

Before beginning to wire the unit, ensure that all power (AC transformer and battery) is disconnected from the **KT-400**.

Perform the following steps to complete wiring:

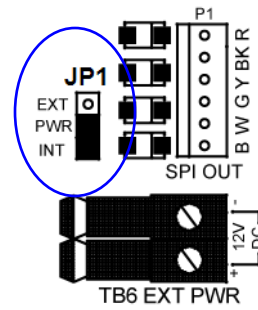
1. Connect the 6-pin SPI connector to to:
  - the **KT-400** SPI port, or
  - the SPI OUT of the previous output module (**KT-MOD-REL8** and **KT-MOD-OUT16** only), or
  - the SPI EXP of the 1st input module **KT-MOD-INP16** connected to the **KT-400** SPI port.
2. Connect the six SPI wires (blue (BLU), white (WHT), green (GRN), yellow (YEL), black (BLK) and red (RED)) to the SPI IN (TB1) terminals.
3. Connect the 6-pin SPI connector from the SPI OUT to the next output module (**KT-MOD-REL8** and **KT-MOD-OUT16** only).
4. Complete all output wiring.

3.4. Check the power jumper **JP1** position. Put it on **EXT** if you need external power or **INT** if no external power is required.

### 3.5. Applying Power

After all wiring is completed, connect the 16 VAC to the KT-400. Connect the battery leads to the battery, and then apply power to the AC transformer.

**Note:** Do not connect power until all wiring is complete.



## Terminal Connections

Module no.: \_\_\_\_\_

Date of installation: \_\_\_\_\_

KT-400 Name: \_\_\_\_\_

KT-400 SITE NAME: \_\_\_\_\_

KT-400 Serial Number: \_\_\_\_\_

AUX: \_\_\_\_\_

SPI BUS (FROM): \_\_\_\_\_

SPI BUS (TO): \_\_\_\_\_

NO RLY1: \_\_\_\_\_  NO RLY5: \_\_\_\_\_

NC  NC

NO RLY2: \_\_\_\_\_  NO RLY6: \_\_\_\_\_

NC  NC

NO RLY3: \_\_\_\_\_  NO RLY7: \_\_\_\_\_

NC  NC

NO RLY4: \_\_\_\_\_  NO RLY8: \_\_\_\_\_

NC  NC

### FCC & IC COMPLIANCE STATEMENT

**CAUTION:** Changes or modifications not expressly approved by Kantech could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class A device in accordance with the specifications of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. The KT-400 is also compliant with EN55022: 1994, amendment 1: 1995, Class A.