

# Cerberus<sup>®</sup> PRO

## LED Switch Module

Model FTO2023-U3

### Architect & Engineer Specifications

- Provides 24 LED switches
- 24 multicolor light-emitting diodes (LEDs) for clear indication of system status
- LEDs can be programmed to one of Eight (8) colors
- Programmable LED annunciation
- Up to four (4) Switch modules can be installed in the window of a Cerberus PRO Enclosure
- Audible confirmation provided with a button press
- Protected space provided for labeling
- UL 864 10th Edition Listed
  - UUKL Listing for smoke control
- ROHS-compliant

### Product Overview

Model FTO2023-U3 is a programmable Switch Control Module with 24 Switches with LEDs. The FTO2023-U3 Switch Modules can be used for status indication as well as for control functions, bypasses, walk tests, voice functionality, smoke control, and much more. The Switch Control module can be installed in a Cerberus PRO Fire Alarm Control Panel (Model FC922 / FC924), in a Cerberus PRO Intelligent Voice Communication System (Model FV922 / FV924) and in a Cerberus PRO Voice Remote Microphone Station (Model VR2005-U3) for activation of fire / voice functions.

The FTO2023-U3 Switch Control Module has 24 front-end, illuminated, programmable LED buttons primarily mounted on the inner door of a Fire Alarm Control Panel. Up to four (4) modules can be supported in a single fire panel enclosure.

Model FTO2023-U3 can be configured for up to 24 elements containing one (1) **Multi-Color**, one (1) **Yellow** LED, and one (1) LED button. Normally, the LED indicator is used for zone control and status indication.

All LEDs and buttons can be configured individually for specific functionality. Any event can be assigned to each LED, which may be programmed as 'OFF', 'Flashing', 'Slow/Fast', or 'Steady On' in any of the available eight (8) colors.

The FTO2023-U3 switch module can be connected to the peripheral data-bus to have a direct connection to the Cerberus PRO panel, or it can be connected to the CAN bus on the voice-control panel and remote microphone station. Connecting to peri-bus will allow all fire functionality. Connecting to the CAN bus will allow all fire and voice functionality.

Model FTO2023-U3 is UL864 10<sup>TH</sup> Edition Listed. It is 'EMC' protected and ROHS compliant.

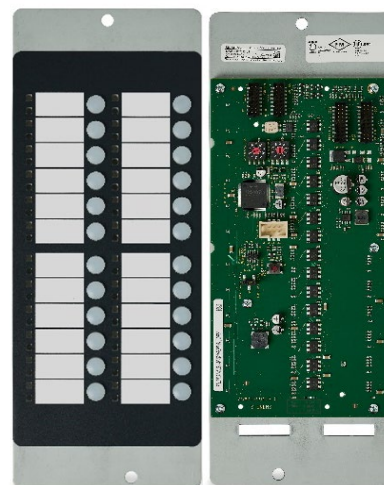


Figure 1: Model FTO2023-U3  
Front and rear view



## Applications

The versatile FTO2023-U3 switch module allows precise control and monitoring of critical elements within a fire system as illustrated through these three (3) applications:

### 1. Fire Zone Switch Component:

- The multi-color status LED conveys status information, such as Zone is in *alarm*, *test*, or *disabled* mode. Various colors and activation modes provide detailed insights, differentiating between manual/auto alarms or testing modes.
- The single **Yellow** LED typically reports troubles in the zone.
- The switch button can be used to bypass and enable the zone or to initiate and terminate a walk test or an installation test.

### 2. Agent Releasing Control Switch Component:

- The status of the multi-color LED can show the stage of the releasing process:
  - Slow flashing between the initial alarm and the pre-discharge stage
  - Quick flashing during the pre-discharge stage
  - Steady on during the release stage
- The switch button provides the abort function.

### 3. Smoke Control Switch Component:

- A switch component can be directly assigned to smoke device control or smoke zone control.
- Standard configuration templates streamline setup and allows for quick and easy "1-step" configurations of the system. For example, with an assignment to a smoke device control and the template "Activate", a switch component could look like *Figure 3*.
- Figures 4-7* illustrate a mixed approach, using the FCM2043 PMI in conjunction with the FTO2023-U3 to offer more comprehensive functionality.

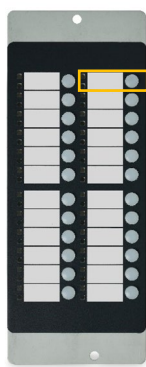


Figure 2: FTO2023-U3 Switch Module

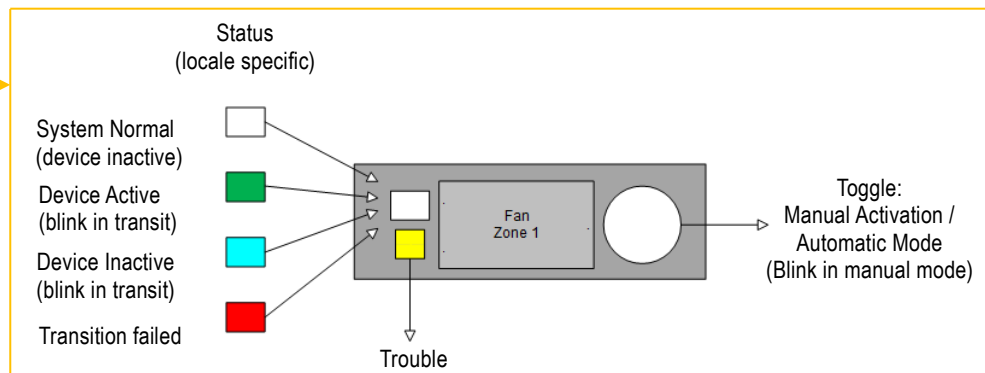


Figure 3: Examination of Single FTO2023-U3 Switch Section

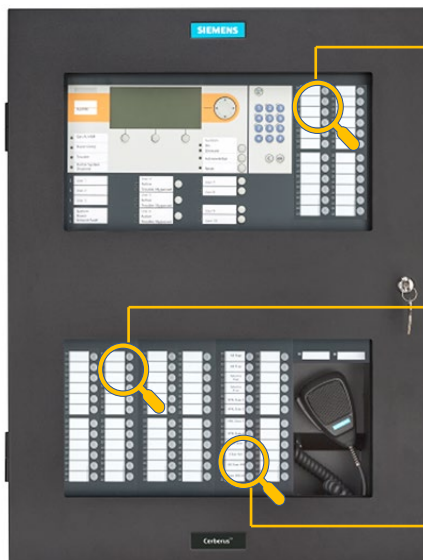


Figure 4: Example of FCM2043 PMI with three(3) FTO2023s

Used to monitor/control fire zones 1-24



Figure 5: Fire Zone Illustration

Used to monitor/control a smoke control system on floors 1-4

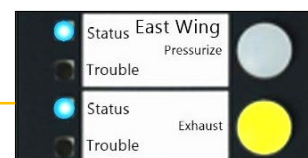


Figure 6: Smoke Zone Illustration

Used to monitor/control speaker zones on floors 1-4



Figure 7: Speaker Zone Illustration

### Status Indicators (on the back of the device)

COLOR	CONDITION	DESCRIPTION
YELLOW	'Off'	Communication status: Normal operation.
	Constantly 'On'	Communication status: Error. Communication has been interrupted.
GREEN	Constantly 'Off'	Microprocessor is not running.
	Flashing	Microprocessor is running.

### Temperature and Humidity Range

The LED Switch Module is UL 864 10<sup>th</sup> Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

#### Technical Data

Electrical Ratings	
Voltage	24VDC
Input Current Draw	Standby: 17 mA (no LED activated) Active: 17 mA + 2.6 mA per LED (Max. 143 mA)
Voltage	24VDC
Output Current Draw	1 Amp Looped, max

#### Physical Properties

Dimensions (W -x- H -x- D)	4" -x- 8" -x- 1" (10.1cm -x- 20.3cm -x- 2.5cm)
Weight	1.5 lbs (680.3 g)

#### Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
FTO2023-U3	S54400-A71-A1	LED Switch Module
Spare Parts Kit		
FCA2057-U1	S54400-A74-A1	FCA2057-U1 Ribbon cable kit for switch module FTO2023. Includes both short and long ribbon cables to connect it to the PMI or other modules via CAN bus or I2C.

#### Related Documentation

Product	Datasheet #
Operating Interface Units	9801
Inner Door Enclosure	9807
Inner Door [for Canada]	9807C

**NOTICE** – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

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