

# QUANTA-MAX MULTIPLE BURNER FLAME INPUT MODULE

## System Overview

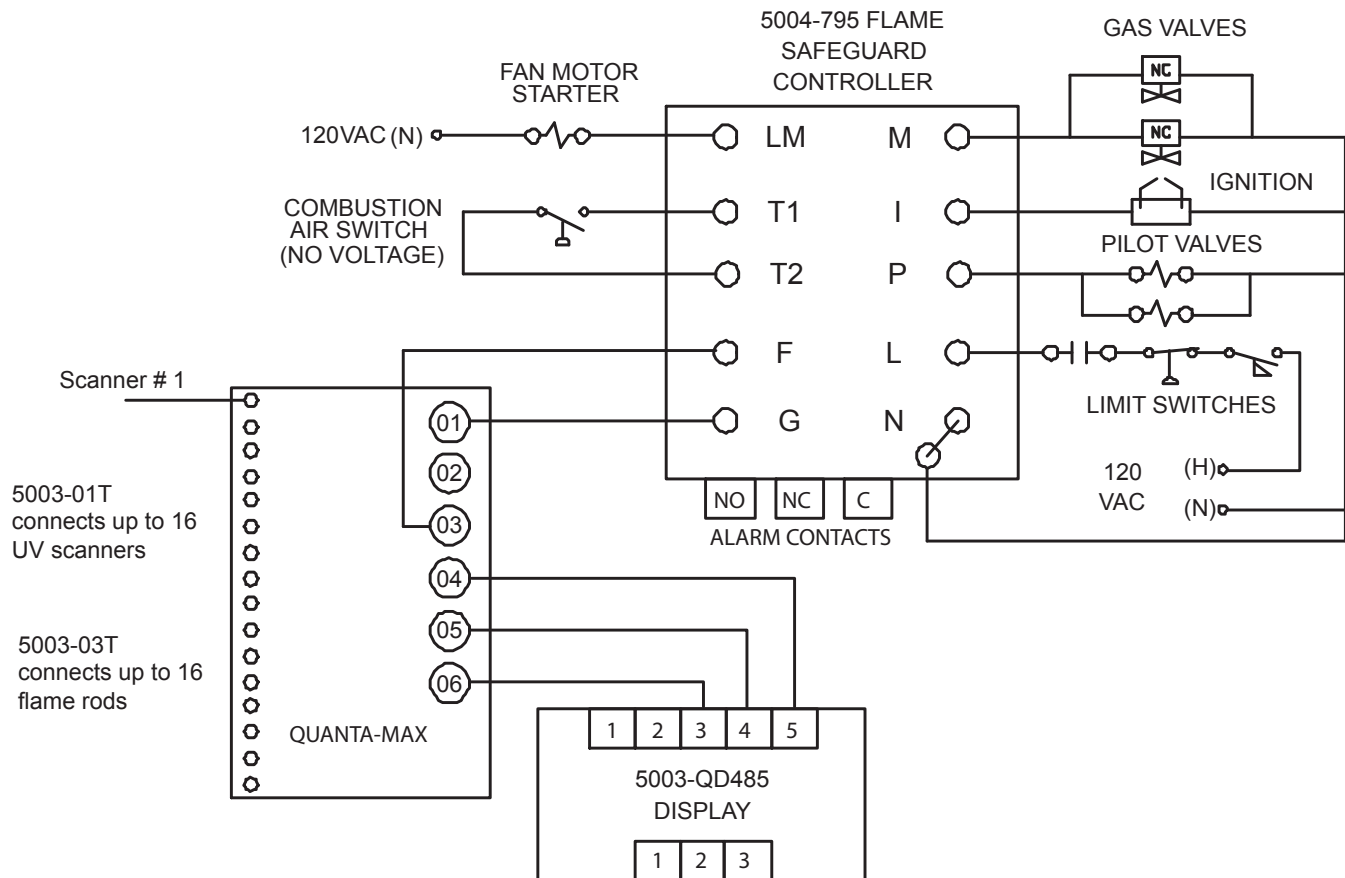
The **Quanta-Max Multiple Burner Input Module** is an economical way to monitor the flame inputs from up to 16 burners, outputting to one single burner flame safeguard system. This system is ideal for ovens, kilns, cabin heaters, and other furnaces that have multiple burners, but just one fuel header safety shutoff valve. This system is not appropriate for boilers because NFPA 85 requires individual burner safety shutoff valves for multiple burner boilers.

### Quanta-Max Features

- Multiple burner system monitors up to 16 burners when used with a 5004-795 controller
- Model 5003-01T accepts UV scanners
- Model 5003-03T accepts flame rod sensors
- Accepts Honeywell, Fireye, Eclipse, PCI, or Preferred flame scanners
- RS-485 Communication Interface
- Display each sensor flame level (with LCD display)
- Burner sequence and alarm display
- Isolated 5 Amp relay alarm contact.
- Optional History Logging of previous shutdowns
- Built-in 120 VAC 50/60 Hz supply
- Small panel space requirements
- Ideal for PLC-based flame safeguard systems



Quanta-Max and QD485 Display



Typical Quanta-Max Wiring Schematic.

Note the flame scanner inputs are universal, and the flame output signal works with most flame safeguard controllers.

# QUANTA-MAX MULTIPLE BURNER FLAME INPUT MODULE

## Suggested Specification

The Quanta-Max system provides individual scanner flame intensity, as well as first-out annunciation of which flame signal went below the adjustable threshold first. Number of flame sensors, flame detection thresholds, and other control functions are determined by DIP switch settings.

Historical trending is provided for the last 16 alarm occurrences. Alarms, first-outs, and other information is available remotely through the RS-232 interface.

### Quanta-Max Specifications

#### Mechanical:

**Enclosure:** 5 7/8" H x 4 3/8" W x 1 5/8" D

#### Electrical

##### Transmitter Unit

**Voltage:** 120 VAC 50/60 Hz (Standard), Power consumption: 2 VA  
220 VAC 50/60 Hz (Model Available)

#### Inputs

**5003-01T:** UV Sensor Input (2-wires)  
PCI, Eclipse, Honeywell, Fireye  
**5003-03T:** Flame Rod (1 wire each)- common ground  
**Relay:** Dry contact

#### Receiver Unit

**Voltage:** 120 VAC 50/60 Hz  
220 VAC 50/60 Hz (Model Available)

#### Outputs

**5003-01T:** UV output  
**5003-03T:** Flame Rod output  
Both models have supervised dry contact (5 A)

### Ordering Information

Description	Catalog Number
Four (4) UV Scanner inputs	5003-01-OT-04-x
Four (4) UV Scanner inputs & Four (4) contact closure outputs	5003-01-RT-04-x
Eight (8) UV Scanner inputs	5003-01-OT-08-x
Eight (8) UV Scanner inputs Eight (8) contact closure outputs	5003-01-RT-08-x
Sixteen (16) UV Scanner inputs	5003-01-OT-16-x
Four (4) Flame Rod inputs	5003-03-OT-04-x
Four (4) Flame Rod inputs & Four (4) contact closure outputs	5003-03-RT-04-x
Eight (8) Flame Rod inputs	5003-03-OT-08-x
Eight (8) Flame Rod inputs & Eight (8) contact closure outputs	5003-03-RT-08-x
Sixteen (16) Flame Rod inputs	5003-03-OT-16-x

**"x" Suffix:** H - Honeywell C7027A-104  
P - PCI PC II  
G - GN Electronics/Preferred (any)  
F - Fireye UV-1A

### Suggested Specification:

#### 1. Multiple Burner Flame Input Module

System shall be capable of monitoring up to 16 flame scanner inputs and providing a single output signal to a separate flame safeguard controller. Input module shall accept flame scanner inputs from a variety of manufacturers and interface with varying flame safeguard controllers. Individual flame signal strength shall be indicated, and first-out annunciation shall be provided to determine which flame signal first fell below adjustable threshold levels.

#### 2. Operation

System shall accept UV or flame rods signals from all major scanner manufacturers. The number of flame signals connected,

and their trip thresholds shall be DIP switch programmable. The control shall interface with a separate 2 x 16 character LCD display, and provide a single "flame proven" signal to a separate flame safeguard controller. Flame proven logic shall be customizable per the application--programmed at the factory. Historical trending of the last 16 alarm conditions shall be provided.

#### 3. Manufacturer

Flame input module shall be Preferred Utilities Mfg. of Danbury, CT, Quanta-Max system model number 5003-01T (UV sensors) or 5003-03T (flame rods). LCD display shall be Preferred Instruments QD485. Flame safeguard controller, if required, shall be 5004-890, 5004-795, or 5004-M series.