

QA-16 DATA ACQUISITION SYSTEM

System Overview



QA-16 Annunciator Module



QD485 Remote Display

Description

The **QA-16** is an inexpensive 16-point data acquisition system for use on single burner, and small multiple burner combustion systems. Two versions of the controller are made--the QA-16 has 8 discrete (120 VAC) inputs and 8 analog (0 to 12 VDC) inputs. The QA-16D version has 16 discrete inputs and no analog inputs. The QA-16 interfaces with the QD485 LCD display to provide programmable, customized status, diagnostic, and troubleshooting messages. Two QA-16 processors can be combined to double the amount of available I/O.

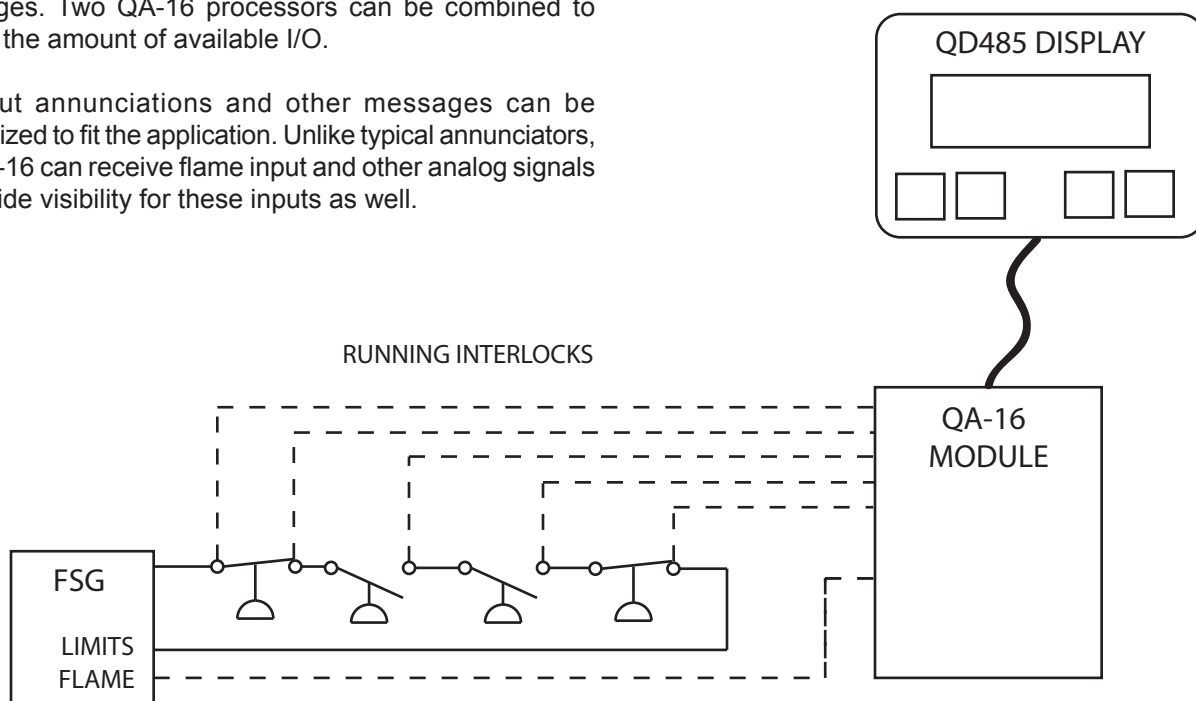
First-out annunciations and other messages can be customized to fit the application. Unlike typical annunciators, the QA-16 can receive flame input and other analog signals to provide visibility for these inputs as well.

The QD485 Display Features

- 2 x 16 segment back-lit display with NEMA 4 membrane front and sealing gasket
- Optional History Logging of past Alarm occurrences
- Optional RS485 communication Interface
- Non-volatile memory (keeps settings for 10 years)
- Operator interface key pad on front of unit
- 1/8th DIN standard size for easy mounting in control panels
- Built-in 120 VAC 50/60 Hz supply

The QA-16 Features

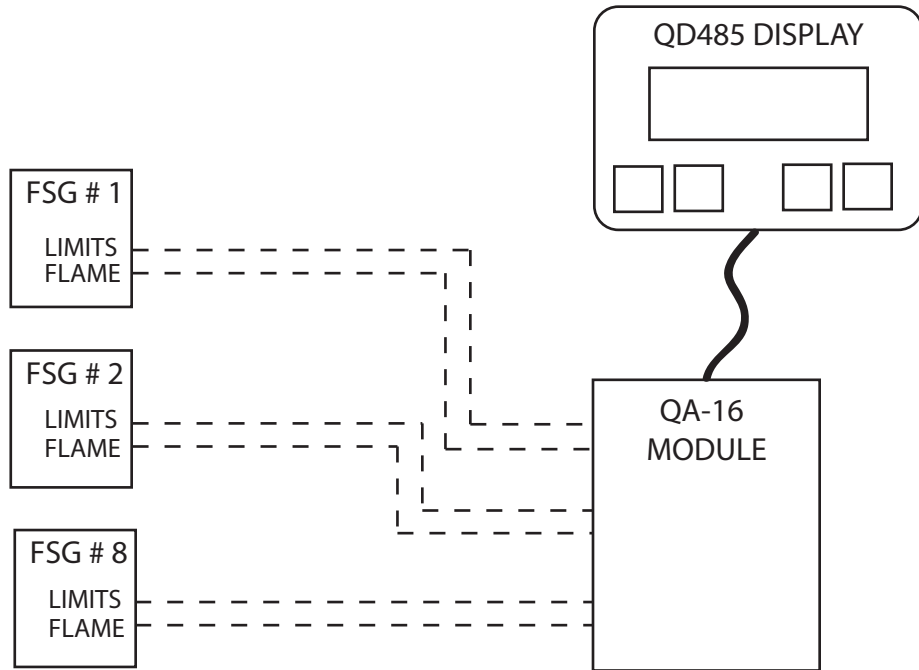
- Digital annunciation of up to 8 discrete inputs and 8 analog inputs (QA-16) or 16 discrete inputs only (QA-16D).



Typical QA-16 Configuration for a Single Burner Application

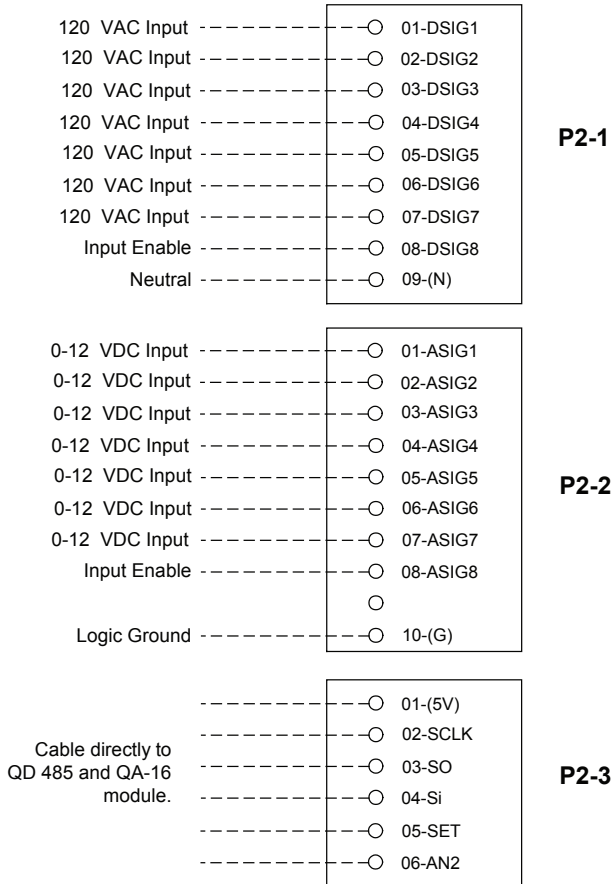
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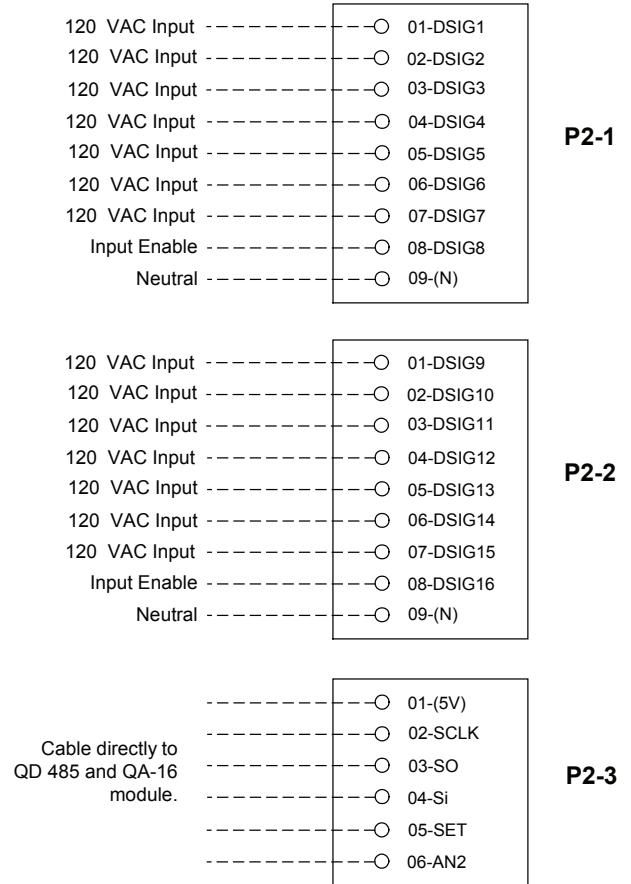
Multiple Burner Configuration of the QA-16. Note only the limit circuits and the flame inputs for each burner are monitored.

Wiring Diagram (QA-16)



QA-16 External Wiring Diagram

Wiring Diagram (QA-16D)



QA-16D Version has 16 Discrete Inputs and no Analog Inputs

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Ordering Information

Ordering Information

Description	Catalog Number
Quanta-Max RS485 Operator Interface Display	5003-QD485
Display with history logging (Last 16 occurrences)	5003-QD485-LG
Receives RS485 from sender and converts to UV/FR individual sensor signals & one combined UV/FR signal.	5003-01R
Annunciator with Operator Interface Display (1/8 DIN panel mount) 16 point analog/digital inputs	QD485QA16
Annunciator with Operator Interface Display (1/8 DIN panel mount) 16 point digital inputs	QD485QD16
Annunciator Display Only	5501QD485
16 point digital input Annunciator Module	5501QD16
16 point analog/digital input Annunciator Module	5501QA16
History logging (Last 10 alarm occurrences)	QD485-History
Custom message for display	QD485-Messages

Suggested Specification (QA-16):

1. Microprocessor Data Acquisition System

System shall be capable of monitoring up to 8 discrete (limit) inputs and up to 8 analog (flame signal) inputs. First-out annunciation and English language messages shall be indicated on a 2 x 16 LCD display suitable for flush-mounting in an enclosure front. The controller shall provide historical logging of past alarms and communicate via RS-232 connection. Display messages and trip logic shall be customizable for each application. One relay output shall be supplied to provide a common alarm contact, trip indication, or other external function. For increase input/output capability, two data acquisition modules shall interface to a common display, providing a total of sixteen discrete inputs and sixteen analog inputs.

2. Manufacturer

Data acquisition system shall consist of one or two Preferred Instruments QA-16 modules interfaced to a Preferred Instruments QD485 display module. System shall be programmed by Preferred Utilities Mfg. of Danbury, CT.

Suggested Specification (QA-16D):

1. Microprocessor Data Acquisition System

System shall be capable of monitoring up to 16 discrete (limit) inputs. First-out annunciation and English language messages shall be indicated on a 2 x 16 LCD display suitable for flush-mounting in an enclosure front. The controller shall provide historical logging of past alarms and communicate via RS-232 connection. Display messages and trip logic shall be customizable for each application. One relay output shall be provided to provide a common alarm contact, trip indication, or other external function. For increase input/output capability, two data acquisition modules shall interface to a common display, providing a total of sixteen discrete inputs and sixteen analog inputs.

2. Manufacturer

Data acquisition system shall consist of one or two Preferred Instruments QA-16D modules interfaced to a Preferred Instruments QD485 display module. System shall be programmed by Preferred Utilities Mfg. of Danbury, CT.