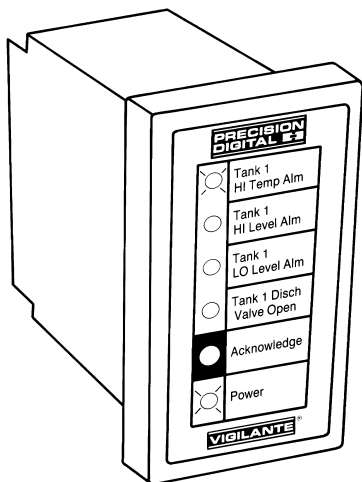


ANNUNCIATOR INSTRUMENTS

Model PD141AFO

Instruction Manual



From urgent alarms to routine messages, the PD141AFO VIGILANTE[®] handles all types of operational messages with simplicity and economy. The VIGILANTE[®] delivers clear, eye catching (and ear catching) information to the plant operators. Alarm outputs from Precision Digital meters, alarm relays, logic levels from 5 to 28 VDC, and switches for parameters such as temperature, pressure, flow, level and proximity can all be fed directly into the VIGILANTE[®].

The VIGILANTE[®] can be field programmed for ISA Sequence A or ISA Sequence F2A, (first-out) operation. ISA Sequence A operation detects both momentary and maintained alarms. ISA Sequence F2A also detects momentary and maintained alarms as well as which alarm occurred first.

Two VIGILANTE[®] may be connected together to provide up to 8 points of annunciation. If the system is programmed for ISA Sequence F2A, the VIGILANTE[®] will detect which of the 8 inputs was first to alarm.

Alarm message labeling may be performed either in the field with a laser printer, or for no charge at the factory. Front panel is NEMA 4X rated.

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www.predig.com

ORDERING GUIDE

MODEL:	DESCRIPTION:
PD141AFO-2	24-48 VDC Power
PD141AFO-3	115 VAC Power
PD141AFO-4	230 VAC Power

SPECIFICATIONS

NUMBER OF INPUTS: 4 per VIGILANTE[®]; 8 per system

TYPE OF INPUTS: Momentary or maintained:

NO or NC switches: Each input circuit contains a pull-up resistor, so it is not necessary to provide external excitation to the switch.

Open Collector Transistor: Open circuit voltage is approximately 5 VDC.

Logic Levels: Low = 0 to .8 VDC; High = 4.7 to 28 VDC, input impedance - 100 Kohms.

OPERATION: User field select: ISA Sequence A or ISA Sequence F2A, (first-out).

OUTPUTS: Alarm condition indicated in 3 ways:

1. **Relay:** 1 SPDT relay (2 A @ 240 VAC) per PD141AFO. For failsafe design, the relay is energized in the Non-alarm State. In the case of a power failure, the relay will go to the Alarm State; (NC contact is connected to common).

2. **Audible:** Built-in horn, 75 dB.

3. **Visual:** Red LED next to the alarm message.

ALARM MESSAGES: Laser-printed, 2 lines at 10 characters per line, per message. Factory or field printable.

POWER INDICATION: Front panel green LED.

POWER: AC power: 115 VAC \pm 10%, 50/60 Hz, 3 VA.

230 VAC \pm 10%, 50/60 Hz, 3 VA.

or DC power: 24-48 VDC, 2 W max, 500 VDC isolation.

ENVIRONMENTAL:

Operating temperature range: -10 to +65 °C

Storage temperature range: -40 to +85 °C

Relative humidity: 0 to 90% non-condensing

ENCLOSURE: 1/8 DIN, high impact plastic, UL 94V-0.

FRONT PANEL: NEMA 4X, panel gasket provided.

CONNECTIONS: Removable screw terminal block (provided) accepts #24 to #12 AWG.

WARRANTY: 1-year parts & labor.

EXTENDED WARRANTY: Warranty may be extended an additional 12 months by returning the Product Registration Form within 2 months from date of purchase.



OPERATION

The VIGILANTE® can be field programmed for either ISA Sequence A or ISA Sequence F2A.

ISA Sequence A**MOMENTARY ALARM**

CONDITION	LED	HORN
Normal	Off	Off
Alert	Flash	On
Normal	Flash	On
Acknowledge	Off	Off

MAINTAINED ALARM

CONDITION	LED	HORN
Normal	Off	Off
Alert	Flash	On
Acknowledge	Steady	Off
Normal	Off	Off

ISA Sequence F2A (first-out)**MOMENTARY ALARM**

CONDITION	LED		HORN
	1st Pt	Next Pt	
Normal	Off	Off	Off
Alert	Flash	Steady	On
Normal	Flash	Steady	On
Acknowledge	Off	Off	Off

MAINTAINED ALARM

CONDITION	LED		HORN
	1st Pt	Next Pt	
Normal	Off	Off	Off
Alert	Flash	Steady	On
Acknowledge	Steady	Steady	Off
Normal	Off	Off	Off



SETUP

The VIGILANTE[®] can be set up without removing it from its case. Setup of the VIGILANTE[®] involves two choices:

1. ISA Sequence A or ISA Sequence F2A
2. Alarm designated by a high (or open) input or by a low (or closed) input.

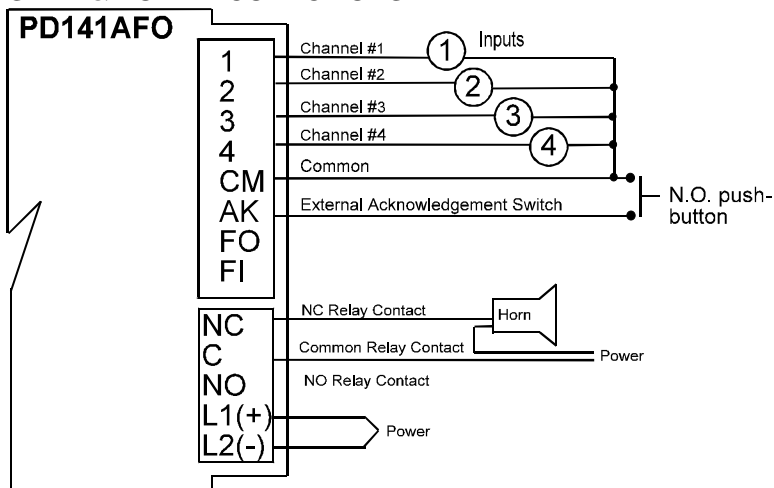
A switch located next to the screw terminals at the rear of the instrument is used to select the sequence under which the VIGILANTE[®] will operate. Slide this switch toward the front of the instrument (marked A on the PCB) for ISA Sequence A operation. Slide this switch toward the rear of the instrument (marked F2A on the PCB) for ISA Sequence F2A (first out) operation.

Alarm on a contact opening or closing is determined for each channel by a switch located beside the message LED for that channel.

When a switch is in the forward position, that channel will alarm when the input contact is opened. If a switch is in the rear position, that channel will alarm when the input contact is closed.

Access to these switches is gained by removing the VIGILANTE[®] cover. The VIGILANTE[®] cover is held in place by 6 latches that snap into notches on the snap-off cover. To remove the snap-off cover from the VIGILANTE[®], grasp the cover firmly on its short sides and pull it forward. The latch plate remains around the VIGILANTE[®] case.

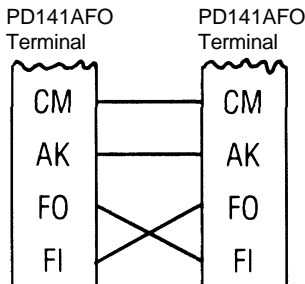
SIGNAL & POWER CONNECTIONS



CONNECTING TWO VIGILANTE® TOGETHER

Two VIGILANTE® may be connected together to form an 8 input system. If the VIGILANTE® are programmed for ISA Sequence F2A, they will detect which of 8 inputs was first to alarm. The Acknowledgment switches will be wired together, so either one can be used to acknowledge an alarm. However, each VIGILANTE® relay will operate independently, so it may be necessary to wire them in parallel to drive a single alarm device. Each VIGILANTE® horn also operates independently.

Connections



ALARM MESSAGE LABELS

Alarm message labels for the VIGILANTE® may be factory-printed for no charge, or field-printed using a laser printer with clear self-adhesive labels.

Factory Printing of Alarm Message Labels

Factory-printed alarm message labels may be ordered at any time, at no charge, by completing the following form. (Note: message #1 is the top message & message #4 is at the bottom.)

Make copies of this page for additional alarm message labels that have different messages.

_____ Please include label with my order

_____ I have the PD141, please send ASAP

Quantity _____

Name _____

Company _____

Mailing Address _____

City, St, Zip _____

Phone _____

PO# _____

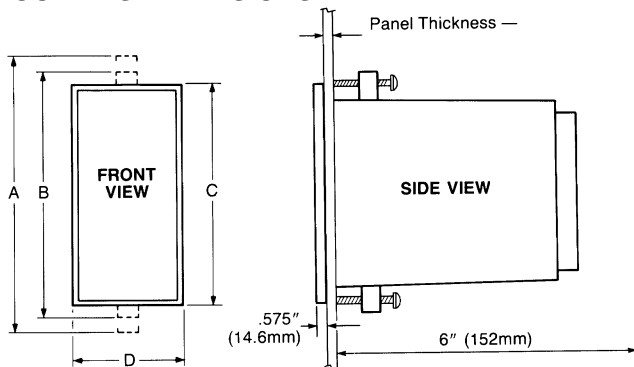
Message No. 1

Message No. 2

Message No. 3

Message No. 4

MOUNTING DIMENSIONS



Notes:

1. Dimensions:

- A: 4.83" (123mm) req'd for installation
- B: 4.30" (109mm) installed
- C: 4.25" (108mm)
- D: 2.30" (59mm)

2. Panel cutout required: 3.62" X 1.77" (92mm X 45mm) 1/8 DIN

3. Panel thickness: .125"-.250" (3.17mm-6.34mm)

4. Weight: 11.4 oz (325g)

5. When mounting two VIGILANTES[®], either side-by-side or one on top of another, separate cutouts must be made for each VIGILANTE[®] to maintain the NEMA 4X rating.

Accessories

PDA2407	NEMA 4X enclosure for 1 meter
PDA2411	NEMA 4X enclosure for 2 meters
PDA2412	NEMA 4X enclosure for 3 meters
PDA2444	Explosion-proof enclosure for 1 meter
PDA2446	Explosion-proof enclosure for 2 meters

OTHER PRECISION DIGITAL PRODUCTS

PD690 Universal Process Meter

PD691 Universal mV Strain Gauge & Load Cell Meter

PD692 Analog Input Flow Totalizer

PD693 Frequency/Pulse Input Flow Totalizer

PD694 0-200 DC Volt Meter

PD695 True RMS AC Volt Meter

PD750 Universal Temperature Meter

PD696-PD698 Loop-powered Totalizers

Loop-powered Meters

3½, 3½ + Extra Zero, & 4½ Digits

0.4, 0.5, 0.7, & 1 Inch High Digits

Panel Mount, NEMA 4X, & Explosion-proof

PD118 Minimax 8 Point Scanner

Adjustable Scan Rate

Easy PLC Interface

Built-in Horn

PD128 PLC Annunciator

PD650 NEMA 4X 2.3" Large Display Process Meter

PD655 NEMA 4X 1.0" Large Display Process Meter

PD656 Explosion-Proof 0.8" Large Display Process Meter

PD755 NEMA 4X 1.0" Large Display Temperature Meter

PD756 Explosion-Proof 0.8" Large Display Temperature Meter

How to Contact Us:

- For Technical Assistance please call (800) 610-5239 or Fax (508) 655-8990
- For Sales Support or to place an order please call (800) 343-1001 or fax (317) 272-2873
- For Warranty Registration and Double Your Warranty On-line, please visit our web site @ www.predig.com

