### VIGILANTE® II ALARM ANNUNCIATORS

### Vigilante





Model PD154 / 4-Point

Model PD158 / 8-Point

- 8 Field Selectable Sequences
- All Common ISA Sequences Including First-Out
- Switch, Transistor, and Logic Level Inputs
- 4 or 8-Point Monitoring
- Free Custom Message Labels
- Type 4X, NEMA 4X, IP65 Front
- Universal Power Supply 85-265 VAC
- 12-36 VDC/12-24 VAC Power Option
- Built-In 85 dB Horn
- 2 SPDT Relays for Alarm Activated Devices
- 24 VDC Isolated Power Supply (AC Models)
- Multiple-Unit First-Out Indication
- Silence, Acknowledge, and Reset Functions
- Sunlight Readable Indication
- Shallow Depth 1/8 DIN Case



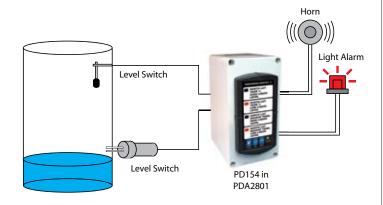




### **MODEL PD154 & PD158 VIGILANTE® II ANNUNCIATORS**

### **APPLICATIONS**

### **Level Monitoring with Level Switches**



The Vigilante® II is ideal for tank level switch monitoring.

- Up to 8 Individually Labeled Level Switch Inputs
- 24 VDC Level Switch Power Supply
- Relays for External Horns and Light Alarms
- Easy NEMA 4X Mounting Enclosures
- · Sunlight Readable Indication

### **Temp Monitoring with Trident Meters**



Connect PD765 Trident alarm relays to the Vigilante® II for temperature alarm monitoring.

- First-Out Indication for Heating/Cooling Systems
- Multiple Unit First-Out Indication
- · Remote Silence, Acknowledge, and Reset
- Internal 85 dB Horn
- Fail-Safe Relays for Critical Applications

### **First-Out Alarm Indication**

The Vigilante® II can be programmed for multiple sequences with first-out alarm indication. This feature indicates the first point of failure of a system when multiple alarms occur.

### **Multiple Unit First-Out Alarm Indication**



### **Multiple Unit First-Out Indication**

If multiple Vigilante<sup>®</sup> II annunciators are connected for multiple unit first-out indication, only one input from all connected devices will display as a first-out alarm.

### **ALARM SEQUENCES**

The Vigilante<sup>®</sup> II Alarm Annunciator can be programmed for all common ISA sequences including A, F1A, F2A, F3A, M, F1M. Selectable ISA-1 (Silence Button), -4 (No Lock-In), and horn disable options. Two popular sequences are detailed below.

### **ISA Alarm Sequence A**

Acknowledgement and Automatic Reset

### **Momentary Alarm**

| Condition         | LED   | Horn |
|-------------------|-------|------|
| Normal            | Off   | Off  |
| Alert             | Flash | On   |
| Normal            | Flash | On   |
| User Acknowledged |       |      |
| Acknowledge       | Off   | Off  |

### **Maintained Alarm**

| Condition         | LED    | Horn |  |
|-------------------|--------|------|--|
| Normal            | Off    | Off  |  |
| Alert             | Flash  | On   |  |
| User Acknowledged |        |      |  |
| Acknowledge       | Steady | Off  |  |
| Normal            | Off    | Off  |  |

### **ISA Alarm Sequence F2A**

First-Out Alarm Indication with Acknowledgement and Automatic Reset

### **Momentary Alarm**

| Condition         | LED                |         | Horn |
|-------------------|--------------------|---------|------|
|                   | 1 <sup>st</sup> Pt | Next Pt |      |
| Normal            | Off                | Off     | Off  |
| Alert             | Flash              | Steady  | On   |
| Normal            | Flash              | Steady  | On   |
| User Acknowledged |                    |         |      |
| Ack               | Off                | Off     | Off  |

### **Maintained Alarm**

| Condition         | LED                |         | Horn |
|-------------------|--------------------|---------|------|
|                   | 1 <sup>st</sup> Pt | Next Pt |      |
| Normal            | Off                | Off     | Off  |
| Alert             | Flash              | Steady  | On   |
| User Acknowledged |                    |         |      |
| Ack               | Steady             | Steady  | Off  |
| Normal            | Off                | Off     | Off  |



### **MODEL PD154 & PD158 VIGILANTE® II ANNUNCIATORS**

### **FRONT PANEL**

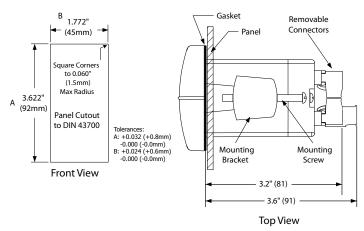
| Button      | ¥                       | t                   | C               |
|-------------|-------------------------|---------------------|-----------------|
| Description | Silence<br>Horn         | Acknowlege<br>Alarm | Reset<br>Inputs |
| LED         | Description             |                     |                 |
|             | Point status indicators |                     |                 |
|             | Indicates power is on   |                     |                 |

**LED Test:** Press and release the SILENCE and ACK pushbuttons to flash the channel indicator LEDs for an LED function test.

**Full Function Test:** Press and hold the SILENCE and ACK pushbuttons for 3 seconds to initiate a full function test.

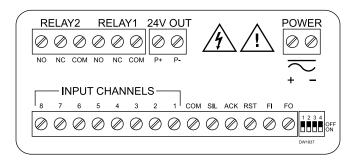
**External Connections:** All three pushbuttons may be activated remotely via rear terminal connections.

### MOUNTING DIMENSIONS



### **CONNECTIONS**

PD158 connections for 85-265 VAC powered model.



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### **MESSAGE LABELS**

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

Factory printed message labels may be ordered at any time by completing the following form.

| Please include label with my order        |
|---|
| I have the Annunciator, please send label |
| Quantity                                  |
| Name                                      |
| Title                                     |
| Company                                   |
| Mailing Address                           |
| City, St., Zip                            |
| Phone                                     |
| Fax                                       |
| E-Mail                                    |
| DO#                                       |

Area available per message: PD154, 1.25" x 0.60" (32 mm x 15 mm); PD158, 1.25" x 0.25" (32 mm x 6 mm); user may specify any size and length that will fit in this area. Lines of 14 characters max at 9 point type will fit.

# PD158 Message 1 Message 1 & 2 Message 2 & Message 3 & 4 Message 3 Message 3 Message 5 & 6 Message 4 & Message 7 & 8



### **MODEL PD154 & PD158 VIGILANTE® II ANNUNCIATORS**

### **SPECIFICATIONS**

Except where noted all specifications apply to operation at +25°C.

### General

**Display:** PD154; Four red LED channel indicators. PD158; Eight red LED channel indicators. One green LED power indicator.

**Alarm Messages:** Custom printed adhesive clear labels.

Area: PD154, 1.25" x .60" (32 mm x 15 mm), 4 messages PD158, 1.25" x .25" (32 mm x 6 mm), 8 messages

User specified size and length, up to 4 lines (PD154) or 2 lines (PD158) of 14 characters of size 9 pt fonts.

**Programming Methods:** Rear 4-position switch for sequence selection and horn operation. Three front panel pushbuttons for NO/NC input selection, sequence option, and operation.

Audible Alarm: 85 dB internal horn.

**Noise Filter:** 40 ms debounce on inputs, including external silence, acknowledge and reset.

**Shared First-Out Systems:** 1 ms unit-to-unit delay. Maximum of 200 units in the shared first-out system.

**Non-Volatile Memory:** All programmed settings are stored in non-volatile memory for a minimum of ten years if power is lost. **Power Options:** 85-265 VAC, 50/60 Hz; 90-265 VDC, 20 W

max; or 12-36 VDC, 12-24 VAC, 6 W max.

**Fuse:** Required external fuse: UL Recognized, 5 A max, slow blow. Up to 6 annunciators may share one 5 A fuse

Isolated Power Supply: 24 VDC ± 10% @ 200 mA max

Standard on 85-265 VAC powered units only. **Isolation:** 4 kV input/output-to-power line.

**Overvoltage Category:** Installation Overvoltage Category II: Local level with smaller transient overvoltages than Installation Overvoltage Category III.

**Environmental:** Operating temperature range: -40 to 65°C. Storage temperature range: -40 to 85°C. Relative humidity: 0 to 90% non-condensing.

**Connections:** Removable screw terminal blocks accept 12 to 22 AWG wire.

**Enclosure:** 1/8 DIN, high impact plastic, UL 94V-0, front color: black **Mounting:** 1/8 DIN panel cutout required. Two panel mounting brackets included.

**Tightening Torque:** Screw terminal connectors: Gray: 4.5 lb-in

(0.5 Nm). Green: 5 lb-in (0.5 Nm)

Overall Dimensions: 4.68" x 2.45" x 4.19" (62 mm x 119 mm x  $^{\circ}$ 

106 mm) (H x W x D) **Weight:** 9.6 oz (272 g)

**UL File Number:** E160849; 508 Industrial Control Equipment

Warranty: 3 years parts & labor

Extended Warranty: 1 or 2 years, refer to the Price List for details.

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### Inputs

Input Types: NO or NC switches: No external excitation required. Open collector transistor (NPN): Open circuit voltage approx. 3.3 VDC. Logic Levels: LOW = 0 to 0.9 VDC, HIGH = 2.4 to 28 VDC Update Rate: 41 ms following alarm state; 1 ms for alarm state clear.

**Sequences:** Input follower, ISA Sequences A, F1A, F2A, F3A, M, F1M, and F3M per ISA Standard ISA-18.1-1979 R2004.

**Sequence Options:** A, F1A, F2A, F3A, M, F1M, F2M, and input follower with selectable options -1 (silence pushbutton), -4 (no lock-in), and -6 (no horn) per ISA Standard ISA-18.1-1979 R2004.

### Relays

**Rating:** 2 SPDT (Form C); rated 3 A @ 30 VDC or 3 A @ 250 VAC resistive load; 1/14 HP @ 125/250 VAC for inductive loads. **Electrical Noise Suppression:** A suppressor (snubber) should be connected to each relay contact switching inductive loads to prevent disruption to the microprocessor's operation. Recommended suppressor value: 0.01  $\mu$ F/470  $\Omega$ , 250 VAC (PDX6901).

**Relay Operation:** Relay 1: Alarm state until alarm is acknowledged. Relay 2: Alarm state if any channel indicating alarm condition.

**Fail-Safe Operation:** Programmable independent for each relay. **Note:** In fail-safe mode, relay coil is energized in non-alarm condition. In case of power failure, relay will go to alarm state.

### ORDERING INFORMATION

| 85-265 VAC*<br>Model | 12-36 VDC*<br>Model | Description                       |
|----------------------|---------------------|-----------------------------------|
| PD154-6R2-1          | PD154-7R2-0         | Vigilante® II 4-Point Annunciator |
| PD158-6R2-1          | PD158-7R2-0         | Vigilante® II 8-Point Annunciator |

<sup>\*</sup>All models may be powered from AC or DC, see Specifications for details.

### **Enclosures and Accessories**

| Model     | # of<br>Units | Description                          | Mounting      |
|-----------|---------------|--------------------------------------|---------------|
| PDA25XX-V | 1-10*         | Plastic NEMA 4X Enclosure            | Through Door  |
| PDA26XX-V | 1-6*          | Stainless Steel NEMA 4X              | Through Door  |
| PDA27XX-V | 1-6*          | Steel NEMA 4 Enclosure               | Through Door  |
| PDA2801   | 1             | Low-Cost Plastic NEMA 4X             | Through Cover |
| PDX6901   |               | Snubber 0.01μF, 470Ω, Flexible Leads |               |

Note: XX = the last two digits of the model number

### **Services**

| Model           | Description                             |  |
|-----------------|---|--|
| PDN-CSETUP      | Custom Setup                            |  |
| PDN-ONEDAYRTN   | One-Day Turnaround Service              |  |
| PDN-EXTWRNTY1-0 | Extended Warranty 1 Year LP:\$0-\$299   |  |
| PDN-EXTWRNTY1-1 | Extended Warranty 1 Year LP:\$300-\$599 |  |

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### PRECISION DIGITAL CORPORATION

<sup>\*</sup> Go to www.predig.com to find individual model numbers.