

ANNUNCIATORS

Series 90B Annunciator

For Power Generation, Transmission & Distribution, Petroleum, Petrochemical and Other Process Industries

Innovative Alarm Monitoring System

Innovative Annunciator

The AMETEK Power Instruments Series 90B Annunciator brings alarm monitoring to a new level. It features long life, reliable LED illumination for local viewing of alarms and a host of communication options to connect to other devices. Alarms can be viewed remotely via a standard web browser using a built-in web server.

Reliability

Every Series 90B Annunciator is equipped with low-power, long-life LEDs. The brightness exceeds standard incandescent bulbs and lasts years longer. If an LED needs replacing, an automatic detector provides notification so critical alarms are not missed. An optional built-in ground fault detector is available for indicating ground faults in field wiring.

Communications

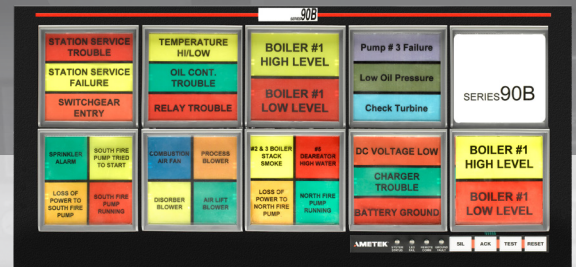
Dual independent communication ports (RS-232/485 and Ethernet) are available to transmit alarms to other devices. The Series 90B can receive alarms using communication ports, eliminating the need to connect digital inputs and associated wiring. The Series 90B supports Modbus, DNP and ASCII protocols.

Web Browser Display

The Series 90B has a built-in web server for displaying alarms remotely via a standard web browser. The web browser displays a graphic image for each event with the date and time of the occurrence.

Time Stamped Alarms (SER)

All your alarms can include a time stamp, synchronized by IRIG-B, NTP or internal clock. Time stamps can be presented through Modbus, DNP or to a local printer or terminal for viewing.



Ease of Installation

Every option is built into the Series 90B Annunciator unit so it is self-contained. Installation and wiring are simplified and, in most cases, the power supply is built into the annunciator. While all systems are preconfigured to specifications, the software configuration tool allows users to make easy modifications without changing PCB board jumpers.

Window legends are printed on standard transparency film, making them easy to change at any time. All features and options are field selectable and upgradeable.

FEATURES AND BENEFITS

- 1 LED illumination (standard)
- 2 Dual communications: Serial and multi-user ethernet
- 3 Modbus, DNP protocols
- 4 Web browser display of alarms
- 5 Time-stamped alarms (SER)

SPECIFICATIONS

INPUT

FIELD CONTACTS

- Normally Open (N.O.) or Normally Closed (N.C.) input selection through software or hardware
- Wetted (voltage supplied) or dry (voltage free) contacts

FIELD CONTACT VOLTAGE

- 20-150 VDC, 20-150 VAC (.0018 mA per input)

INPUT ISOLATION

- Each input is optically isolated

INPUT RESPONSE

- 50 milliseconds (standard)
- 1 millisecond fast response (optional)
- 50 milliseconds to 250 seconds software adjustable

DISPLAY

LED

- White LED, minimum 2 per window

WINDOW SIZES (H X W)

- Quad: 1.5 x 1.5 inch (38 x 38 mm)
- Third: 1.0 x 3.0 inch (25 x 76 mm)
- Half: 1.5 x 3.0 inch (38 x 76 mm)
- Full: 3.0 x 3.0 inch (76 x 76 mm)

WINDOW COLORS

- White, red, yellow, amber, green, blue

LEGENDS

- Laser printed on transparency film or engraved windows

ALARM SEQUENCE

SEQUENCE SELECTIONS

- LN, AO, AONL, AF, AFNL, FR, AM, FRM, AS, ASFR, ASFRM, TFS, TFSFRM, TFSM, ARR, FRR, VS, VSRR, MC
- SOFTWARE CONFIGURABLE
 - Dual color sequences
 - Customized flash rates
 - Up to 4 first out groups

CONTROLS

- Integral test, acknowledge, silence and reset with LED status lights
- External push button inputs
- Configurable switch inputs (inhibit LEDs, horns, relays)

OUTPUTS

AUXILIARY RELAY OPTION

- Individual or dual relay per point
- Follows field contact or alarm sequence
- Software configurable
- Energized/de-energized operation
- Form A or form B (N.O. or N.C.)
- Form C (SPDT)

COMMON RELAYS

- 2 relays included for: critical and non-critical horn; ring back audible
- 2 relays available for: critical and non-critical re-flash, common alarm; watchdog, power fail, ground fault
- Software configurable
- Energized/de-energized operation
- Form A or form B (N.O. or N.C.)

RELAY RATINGS

- 24 VDC @ 3.0 amps
- 110 VDC @ 0.1 amps
- 120 VAC @ 3.0 amps

AUDIBLE

- Internal 80 db @ 30 cm audible device
- external horns available

COMMUNICATION

- RS-232/485 & Ethernet, single or dual communications & web browser display

PROTOCOLS

- Modbus RTU and Ethernet
- Main or secondary
- Transmit or receive alarms
- Pushbutton controls

DNP 3.0

- Secondary mode
- Transmit alarms
- Pushbutton controls

SERIAL ASCII

- For local terminal/printer

TIME STAMPED ALARMS

- 1 or 4 msec time stamp resolution
- IRIG-B, NTP time sync input or internal clock
- Point #, alarm status, time and date
- Modbus, DNP, ASCII outputs
- 40,000 event storage, non-volatile

CONNECTIONS

INPUT/OUTPUT TERMINALS

- Fixed barrier terminal block, 12 GA (2.5 mm) maximum, ring, spade or bare wire termination

COMMUNICATION PORTS

- Serial: 9 pin female D connector
- Ethernet: RJ45 connector
- WEB Server: via Ethernet
- Email Notification: via Ethernet

TIME SYNCHRONIZATION

- IRIG-B: BNC connector
- NTP: via Ethernet

MECHANICAL

MOUNTING

- Semi-flush panel mounting
- 19-inch rack mounting
- Wall (surface) mounting
- NEMA enclosures

WEIGHT

- 1.5 lb per cell (0.68 kg per cell)

POWER REQUIREMENTS

INTERNAL OR EXTERNAL POWER SUPPLIES

- 230 VAC (176-264 VAC 50 Hz)
- 120 VAC (88-132 VAC 60 Hz)
- 125 VDC (100-250 VDC)
- 48 VDC (38-58 VDC)
- 24 VDC (19-29 VDC)

Max. 2.2 watts/input @ power input

ENVIRONMENT

OPERATING TEMPERATURE RANGE

- -4 to 140°F (-20 to 60°C)

HUMIDITY

- 20-95% RH

SURGE WITHSTAND

- ANSI C37.90.1 (oscillatory)

FAST TRANSIENT

- IEC-61000-4-4

SURGE IMMUNITY

- IEC-61000-4-5

EMI/RFI/ESD

- IEC-61000-4-3, 4-6, 4-8, 4-2
- EN 61326 CISPR 16

ISOLATION

- 1950 VDC or 1400 VAC input to output, logic, case

CERTIFICATIONS

- UL, ULC, CE, FM Class 1, Div 2, FMC

SEMI-FLUSH MOUNTING DETAILS

Cells H or W	Overall H or W	Panel Cutout H or W
1	5.0 (127)	4.06 (103)
2	8.47 (215)	7.53 (191)
3	11.94 (303)	11.00 (279)
4	15.40 (391)	14.47 (368)
5	18.88 (479)	17.94 (456)
6	22.34 (568)	21.41 (544)
7	25.81 (656)	24.88 (632)
8	29.28 (744)	28.34 (720)
9	32.75 (832)	31.81 (808)
10	36.22 (920)	35.29 (896)
11	39.69 (1008)	38.75 (984)
12	43.16 (1096)	42.22 (1072)
13	46.63 (1184)	45.69 (1160)
Depth behind panel: 6.75", 10" with rear cover		

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POWER INSTRUMENTS

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