Model 90A Annunciator
FOR POWER GENERATION, TRANSMISSION & DISTRIBUTION, PETROLEUM, PETROCHEMICAL, AND OTHER PROCESS INDUSTRIES

INNOVATIVE ANNUNCIATOR

Based on the highly acclaimed Series 90, AMETEK's new Model 90A Annunciator brings alarm monitoring to new levels. It has several communication options, can provide time stamped alarms and all features and options are field configurable. Installation and setup have been simplified making this an ideal fit for new projects or system replacements. The unique software configuration provides more features and functions a mouse click away.

Communications
Transmit or receive alarms using our RS-232/485 serial or Ethernet port. The Model 90A supports Modbus and DNP protocols. Communicate via OPC using our OPC Server Software.

Compact Size
The annunciator and all electronics including the communication options are self contained within a compact frame less than seven inches deep. In most cases, the power supply is included inside the system simplifying installation and wiring.

Time Stamped Alarms (SER)
All of your alarms can include a time stamp, synchronized by IRIG-B or our internal clock. This can be presented through Modbus, DNP, OPC or to a local printer or terminal for viewing.

Flexible Design
The window legends are printed on standard transparency film, making it easy to change legends at any time. The annunciator capacity can be increased with built-in expansion. All features and options are field selectable and upgradeable.

Software Configuration
While all systems are pre-configured to your specifications, the software configuration tool unleashes the true power of the Model 90A.

You can select any operational sequence, sort alarms by group, configure your relay outputs and more. There is never any reason to pull out the front accessible input cards as changes can be made via software.

Reliability
Every Model 90A annunciator is equipped with low power, long life LEDs. The brightness exceeds standard incandescent bulbs and they last years longer. If a LED needs replacement, our automatic detector provides notice so critical alarms are not missed. A built-in ground fault detector is available for indicating ground faults in your field wiring.

FEATURES AND BENEFITS

- Serial and Ethernet Communications: Modbus, DNP, OPC Protocols
- Compact Size
- Timed Stamped Alarms (SER)
- Software Configurable
- LED Illumination (Standard)
- Laser Printed Legends
- Internal Self Diagnostics

AMETEK®
POWER INSTRUMENTS

EXPERIENCE THE
POWER™

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
• 12, 24, 48, 125 VDC, 120 VAC jumper selectable (.0018mA per input)

Input Isolation
• Each input is optically isolated

Input Response
• 50 milliseconds (standard)
• 1 millisecond fast response (opt)
• 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 Color
• 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; ringback audible
• 2 relays available for: critical and non-critical reflash, common alarm; watchdog, power fail, ground fault
• Software configurable
• Energized or 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 80db @ 30cm audible device external horns available

COMMUNICATION
Serial Modbus
• Master or slave
• Transmit or receive alarms
• RS-232/485 or Ethernet
• Pushbutton controls

DNP 3.0
• Slave mode
• Transmit alarms
• RS-232/485 or Ethernet
• Pushbutton controls

OPC Server Software
• Ver. 2.0 OPC DA

Serial ASCII
• RS-232/485 or Ethernet
• For local terminal/printer

TIME STAMPED ALARMS
• 1 or 4 msec time stamp resolution
• IRIG-B time sync input or internal clock
• Point #, alarm status, time and date
• Modbus, DNP, ASCII outputs
• 500 event storage

CONNECTIONS
Input/Output Terminals
• Fixed barrier terminal block, 12 GA (2.5mm) maximum, ring, spade or bare wire termination.

Communication Ports
• Serial: 9 pin female D connector
• Ethernet: RJ45 connector
• IRIG-B: BNC connector

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. 1.7 watts/input @ power input

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

Weight
• 1.2 lbs per cell (0.34 kg per cell)

ENVIRONMENT
Operating Temperature Range:
• -4 to 122°F (-20 to 50°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, 6-3, 4-8, 4-2

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 inches (mm)		
Cells H or W	Overall H or W	Panel Cut-Out 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", 8" with rear		

Example: 2 H x 3 W has a cut-out height of 7.53 (191) and a cut-out width of 11.0 (279)

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SCIENTIFIC COLUMBUS   Gulton Statham   RiS ROCHESTER   PANALARM   Pulsar

ISO 9001 Certified