ANNUNCIATOR MODEL CODE DEFINITION

Series 90A Model Number

90A-	-	-	-	-	-	-	
	Item 1 Mounting Options	Item 2 # of Cells High	Item 3 # of Cells Wide	Item 4 Common Service	Item 5 Window Size	Item 6 Active Points	Item 7 Window Color
	-	-	-	-	-	-	-
	Item 8 Operational Sequence	Item 9 Repeat Relay	Item 10 Power Input	Item 11 Field Contact Voltage	Item 12 Window Legends	Item 13 Comm. Options	Item 14 Options

Example: 90A-PM-3H-6W-INTB-2-34-W-A-RR-B-X-TP-MB-TS-IB-RLY

Item 1 Mounting Options

PM	Semi-Flush Panel Mounting
PC	Semi-Flush Panel Mounting w/rear cover
RK	19" Rack Mounting (5 wide systems only)
S	Surface (Wall) Mounting (1H to 5H x 2W to 5W)
N4	Nema-4 Enclosure (3H to 5H x 3W to 5W)

Item 2,3 Annunciator Size

# of Cells High (1-13)	# of Cells Wide (2-13)

Item 4 Common Service Cell (lower right cell)

INTB	Integral Pushbuttons (ACK, SIL, TEST, RESET)
NPB	Pushbuttons replaced w/ a Half or Full Size Window
Note:	*For either selection above, external pushbuttons can be connected to the Annunciator terminal blocks.*

Item 5 Window Size

4	Quad Size, 4 inputs per cell, ea 1.5"H x 1.5"W
3	Third Size, 3 inputs per cell, ea 1.0"H x 3.0"W
2E	Half Size, 2 inputs per cell, ea 1.5"H x 3.0"W
2S	Half Size, 2 inputs per cell, ea 1.5"H x 3.0"W
2	Half Size, 2 inputs per cell, ea 1.5"H x 3.0"W
1E	Full Size, 1 input per cell, ea 3.0"Hx3.0"W
IMW	Intermixed window size

Note:
*Option **1E** indicates that the cell is expandable up to 2 inputs.*
*Option **2E** indicates that the cell is expandable up to 4 inputs.*
*Option **2S** indicates one input module per single input provided. Do not include the CSM Cell in your quantity.*

Item 6 Active Points

Total # of active points

Item 7 Window Color

W	White Window Filter
R	Red Window Filter
A	Amber Window Filter
G	Green Window Filter
B	Blue Window Filter
IMC	Intermix color, matrix must be included

Item 8 Operational Sequence

	A; A4; A4-5-6; M; R; R-12 ; F1A; F2A; F3A; F2M-1; FFAM2; F3C ; R12C ; RC
IMO	Intermixed Sequences (up to 4 available)

Item 9 Repeat Relay Option

RR	Auxiliary Repeat Relay Provided for every Input. (Can be field configured to follow: alarm input status, alarm sequence operation or Lamp Flash. Relays can be set for normally energized or de-energized operation and are jumper selectable for a Form A or Form B contact arrangement).
FRC	Auxiliary Repeat Relay Provided for every Input with Form C (SPDT) Contacts. (Can only be used with Window Size 1E or 2S).
2RR	Two Repeat Relays for every input. (Selectable for a Form A or Form B contact arrangement. Can only be used with Window Size 1E or 2S.)
NR	No Repeat Relays required

(Note: Can only choose one selection from above).

Item 10 Power Input

F	24 VDC
E	48 VDC
C	125 VDC
B	120 VAC, 60 HZ
A	230 VAC, 50 HZ

Item 11 Field Contact Voltage (FCV)

Field Contact Voltage internally supplied by AMETEK, with common system-wide FCV return.
*For System Input Power Voltages of 120/230VAC or 125VDC.

D	125 VDC FCV
X	24 VDC FCV

Field Contact Voltage externally supplied by Customer, internally bussed to all input modules.

DC	125 VDC FCV supplied by Customer
TC	48 VDC FCV supplied by Customer
XC	24 VDC FCV supplied by Customer
JC	12 VDC FCV supplied by Customer

Field Contact Voltage externally supplied by Customer. Every input is isolated and requires a separate FCV connection.

D/ISO	125 VDC FCV supplied by Customer
T/ISO	48 VDC FCV supplied by Customer
X/ISO	24 VDC FCV supplied by Customer

J/ISO	12 VDC FCV supplied by Customer
Y/ISO	120 VAC FCV supplied by Customer
NR	No Field Contact Voltage (Serial Input Only)

Item 12 Window Legends

TP	Legends printed on Transparency Film (field changeable)
E	Legends Engraved on Windows
Note:	*Window engraving or printed legends can be provided at the factory at no charge if provided 1 week before shipment.*

Item 13 Serial Communications

SIM	Modbus Serial Input Only (no Field Contact Inputs)
SID	DNP Serial Input Only (no Field Contact Inputs)
MB	Modbus Communications, Transmit or Receive
DNP	DNP 3.0 Communications, Transmit or Receive
SD	Serial ASCII Data Output of Time Stamped Alarms (Used with the Time Stamping option **SER** only.)
Note:	*Can only select one of the above options. All options above are field selectable for RS-232 or RS-485 and can be configured for Master or Slave operation.*

Item 14 Options

ETH	Ethernet Port (RJ-45 , T1 connection) (Used with Modbus or DNP Communication options. Must select option MB or DNP. Replaces RS-232/485 Serial Port.)
FR	1 msec Input Response (50 msec Standard) (This will capture alarms that last 1 msec or longer. If Time Stamping is required, select option SER instead)
SER	Time Stamping of alarms. (The Time & Date of each alarm is recorded to the msec. The Time Stamp output can be selected as Serial ASCII Data to a printer or terminal [must select option SD], Modbus [must select option MB] or DNP [must select option DNP]. The 1 msec input response [option FR] is included).
IB	IRIG-B Time Sync Input (used with SER Option) (Standard BNC Input)
SP	Serial Printer used for Time Stamped Alarms (Used with SER option [time stamped alarms] and SD option [serial data output]. Modbus, DNP and Ethernet are not available when selecting this.)
GF	Ground Fault Detector (internally mounted)
RLY	Additional Two CSM Common Relays (System includes 2 CSM Common Relays configurable for Critical or Non-Critical Horn, Ringback Horn. The additional 2 CSM Common Relays can be configured for additional horns or Critical/Non-Critical Reflash or Fault, Power Fail, System Watchdog, or Ground Fault Detect)
SW	External Inhibit Switch Input (Software configurable for inhibit of LED Lamps, Horn, Repeat Relay Outputs or CSM Common Relay Outputs)
HN	Internal Horn
AS	Automatic Horn Silence (Can be used to silence any horn with software configurable delay up to 60 seconds, in 0.25 second increments)
FS	Flash Synchronization. Synchronizes the flash rate to remote displays. Needs to be specified for each Annunciator that will be synchronized together. (Requires wiring between Annunciator Systems.)
STM	Moisture/ Fungus Proof Coating