

NAVITRON SYSTEMS LTD

NT990BNWAS Bridge Navigational Watch Alarm System to MSC. 128(75) & IEC 62616

Type Approved by GL, RMRS & CCS for full compliance with IMO Resolution MSC. 128(75) & IEC 62616 (GL), the Navitron NT990BNWAS is available as a basic system to operate proprietary alarm units etc. (if appropriate) or, as an expanded system complete with selector units, remote resets including movement detectors and individual cabin and /or crew call audible alarms. The resultant alarm system provides a regulation safety monitor requiring regular acknowledgement (Reset) by the duty watch personnel at selectable time intervals between 3 and 12 minutes.



Model NT990BNWAS Display Unit

Dims 144mm x 144mm x 53mm (depth)

Once activated, completion of the specified timeout period (3 - 12 mins) will automatically generate a Bridge visual alarm (15 secs) followed by a Bridge audible alarm (15 secs) which is tone and volume adjustable during installation.

Alarm cancellation and commencement of a new timing period will occur whenever the BNWAS 'Reset' button is operated on the main unit or other Wheelhouse/Bridge located Reset units. These can include those available from proprietary equipment workstations (Radar / ECDIS etc.) and the Central Alarm Panel.

Failure to 'Reset' the system during the 30 second Bridge visual/audible alarm period will result in automatic 'Officer Call' alarm activation which, if not acknowledged within a maximum period of 3 minutes, will automatically be followed by the generation of 'Crew Call' alarms.

In the event of a sudden crisis situation requiring immediate Officer assistance, the NT990BNWAS also features an 'Emergency Call' facility which may be operated at any stage of the timing cycles.

Further built in security and error management provisions include 'Tamper' and 'Power Fail' alarm indications commensurate with MSC. 128(75) & IEC 62616.

The NT990BNWAS is available in basic and expanded system forms to suit vessels of all types and tonnages and can be operated from 115 / 230VAC (DB2) and 24Vdc (DB 1) ships main power supplies as required.

The Basic and Expanded NT990BNWAS configurations are shown overleaf.

- **Work Mode Selectable: -**
(Permanently 'ON', Permanently 'OFF' or Automatic 'AUTO')
- **Time Selectable: -**
(3 mins to 12 mins in 1 min steps confirmed by LED display)
- **Keyswitch Security Protected: -**
(Work Mode and Time change by key holder only)
- **Alarm Status Displays: -**
(All Alarm stages LED displayed)
- **Fail Alarm Status Displays: -**
(All failure modes LED displayed)
- **Remote Alarm Unit Facilities: -**
(All Alarm stages accompanied by voltfree closing contact)
- **Emergency Call Facility: -**
(Immediate Officer assistance request signalled)

Optional Remote Reset Unit

Dims 58mm x 64mm x 35mm (depth)

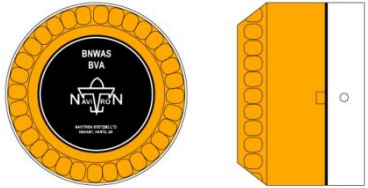


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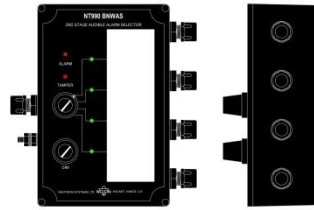
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Bridge Visual Alarm (WAS BVA)
(Dimensions 93 dia x 65 (mm))

For bridge / wheelhouse deckhead mounting (or a prominent location within the wheelhouse) this unit provides the first stage (15 secs) alarm indication to watch personnel and is accompanied by flashing LED indication on the Main Display / Control Unit.



2nd Stage Selector Switch (WAS OSS)
(Dimensions 95 x 145 x 49 (mm))

If the first stage visual alarm is not reset by bridge watch personnel within 15 seconds, this is accompanied by a bridge audible alarm for a further 15 secs beyond which - if still not reset - the second stage Officer Call alarm is generated.

The Officer Call can be routed to the required duty officer Cabin Alarm unit via the Officer Selector Switch (OSS).



Officer Cabin Sounder Unit (WAS CA)

(Dimensions 90 x 115 x 55 (mm))



Masters Cabin Sounder Unit (WAS MCA)

Officer Cabin Alarm units are available in two types:-

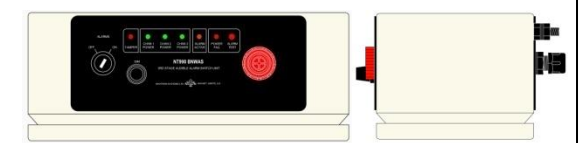
CA - Standard Duty Officer visual & audible alarm unit(s) active via OSS.

MCA - Masters cabin alarm which can monitor all other Duty Officer units or can be switched "OFF" to leave just the standard unit(s) active as selected via the OSS.

BRIDGE / WHEELHOUSE EQUIPMENT

2nd STAGE AUDIBLE ALARMS (OFFICER CABINS)

3rd STAGE AUDIBLE ALARMS (CREW / PUBLIC AREAS)



If the 2nd stage officer call alarm is not reset within a period of 90 to 180 secs (installation selectable) the final stage crew call alarm automatically sounds. The final (3rd) stage alarm can switch up to 30 audible units (AC or DC) via the Alarm Distribution Unit (ADU). The ADU is separately fused and can operate from an independent supply.

(Dimensions 300 x 150 x 120 (mm))



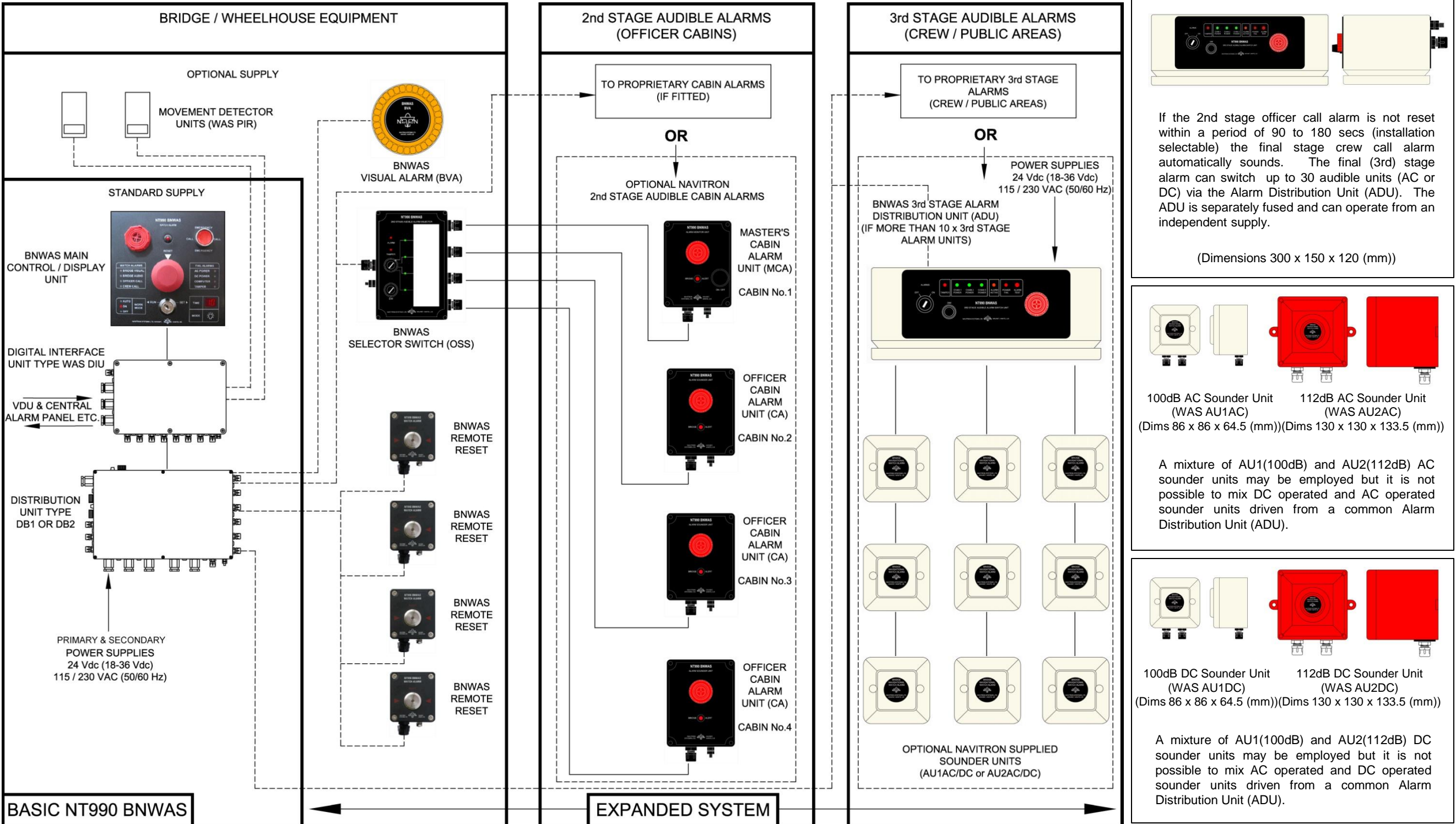
100dB AC Sounder Unit (WAS AU1AC) 112dB AC Sounder Unit (WAS AU2AC)
(Dims 86 x 86 x 64.5 (mm))(Dims 130 x 130 x 133.5 (mm))

A mixture of AU1(100dB) and AU2(112dB) AC sounder units may be employed but it is not possible to mix DC operated and AC operated sounder units driven from a common Alarm Distribution Unit (ADU).



100dB DC Sounder Unit (WAS AU1DC) 112dB DC Sounder Unit (WAS AU2DC)
(Dims 86 x 86 x 64.5 (mm))(Dims 130 x 130 x 133.5 (mm))

A mixture of AU1(100dB) and AU2(112dB) DC sounder units may be employed but it is not possible to mix AC operated and DC operated sounder units driven from a common Alarm Distribution Unit (ADU).



NT990BNWAS Technical Specifications

Certification Standards:-		
IEC 62616 (Germanischer Lloyd) & MSC.128(75) GL, RMRS & CCS		
BNWAS Input / Output Specifications		
Inputs: -		
Type	Supply Voltage	Power
BNWAS / 1	Primary 24Vdc (18-36Vdc)	3.2W to 4.5W (max illum) + optional equipment
	Emerg 24Vdc (18-36Vdc)	
BNWAS / 2	115/230VAC 50/60Hz	
	Backup 24Vdc (18-36Vdc)	
	Emerg 24Vdc (18-36Vdc)	
Auto (Remote) Activation via DB1 & DB2		
Two Opto isolated input types: -		
NMEA sentence \$XXHTD	Installation selectable for 4800 or 38,400 baud	
Analogue 11-40Vdc	Installation selectable switchline polarity	
Operator Controls		
Time	3 to 12 minutes selectable in 1 min increments	Keyswitch security protected
Work Mode	Selectable 'ON', 'OFF' or 'AUTO' Mode	
Illum	Variable Red LED Backlight	Keypad
Reset	Cancels all alarms and resets timing cycles	Pushbutton
Emergency Call	Summons immediate Officer Assistance	Protected Pushbutton
Reset (Remote Unit)	Cancels alarms / Restarts timing / adjusts Remote unit illumination level	Pushbutton
Outputs: -		
DB Alarms & CU Status Displays		
Bridge Visual (15 secs)	LED + volt free N/O contact rated 5A @ 30Vdc / 220VAC	
Bridge Audible (15 secs)	LED + volt free N/O contact rated 5A @ 30Vdc / 220VAC	Tone & Volume installation adjustable
Officer Call (90 – 180 secs)	LED + volt free N/O contact rated 5A @ 30Vdc / 220VAC	90, 120, 150, 180 secs installation adjustable
Crew Call (Until Reset)	LED + volt free N/O contact rated 5A @ 30Vdc / 220VAC	Can be combined with Officer Call
AC Power Fail (BNWAS 2)	Status LED	Volt free N/O contact rated 5A @ 30Vdc/220 VAC for ext. console malfunction alarm
DC Power Fail	Status LED	
Computer Fail	Status LED	
Tamper	Status LED	
Complete Power Fail	Volt free S/P C/O contact	To external Fail Alarm
Digital Interface Unit (DIU)		
3 x Opto Isolated IEC 61162 Serial Data Installation Selectable for 4800/38400 baud.		
CH1	\$xxEVE, \$xxALR, \$xxACK	\$BNALR, \$BNACK
CH2	\$xxEVE, \$xxALR	\$BNALR, \$BNACK
CH3	\$xxEVE	
3 x Opto Isolated (5-40Vdc) Analogue		1 x Voltfree Changeover Relay Contact (1A 240Vac/30Vdc) Malfunction Alarm
2 x Reset Inputs from Proprietary Equipment		
1 x Emergency Call Input from required Location		
Movement (PIR) Detectors		Operating Temperature Range -15 to +55°C
2 x Reset Inputs		
Mechanical		
	Dimensions (mm)	Weight
Display Unit	144 x 144 x 47 (depth)	1.0Kg
Distrib (DB1)	222 x 146 x 55 (depth)	0.85Kg
Distrib (DB2)	275 x 175 x 65 (depth)	1.5Kg
Rem. Reset	58 x 64 x 35 (depth)	0.2Kg
Bridge Visual (BVA)	93 dia x 65 (depth)	0.15Kg
Selector Switch (OSS)	95 x 145 x 49 (depth)	0.5Kg
Cabin Sounders (CA/MCA)	90 x 115 x 55 (depth)	0.5Kg
Switch Unit (ADU)	300 x 150 x 120 (depth)	3.1Kg
100dB Sounder (AU1 AC/DC)	86 x 86 x 64.5 (depth)	0.25Kg
112dB Sounder (AU2 AC/DC)	130 x 130 x 133.5 (depth)	0.75Kg
Movement Detector	60 x 106 x 46.5 (depth)	0.15Kg
Digital Interface Unit (DIU)	146 x 222 x 55 (depth)	0.9Kg
Emergency Battery Box (UPS)	146 x 222 x 106.7 (depth)	3.0Kg
Compass Safe Distance (CSD)		
	0.2m	
	0.2m	
	0.2m	
	0.2m	
	0.1m	
	0.1m	
	0.1m	
	0.25m	
	0.1m	
	0.1m	
	0.1m	
	0.1	
	0.2	

Where to buy:



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