

VESSEL ALARM DATA SHEET

Ship Name	Length
Owner	Tonnage
Type	Installed Hp
Classification	Vessel IMO number

Please review the following description of options and information requirements while surveying vessel. This is not a 100% comprehensive list, but should cover information requirements and options for most applications.

ALARM SIGNAL COLLECTORS

The quantity and location of collector junction boxes should:

- either duplicate any existing hardware locations
- or be arranged to simplify/optimize wiring runs for new installations.

Placing alarm collectors **adjacent** to main engines, generators and switchboard can save considerable amounts of cabling and installation costs.

Any enclosure size limitations for collectors should be detailed as well as entry location for wiring.

The environment where collectors are to be located should be evaluated. As with any other electronics, the lower the ambient temperature the better. Avoid areas near turbo chargers, exhaust casing, jacket water pre-heaters, etc.

The cost-effective method is to fully utilize high density "Combo-bricks" type 8004:

- 16 analog inputs are configurable in groups of 8 for DC voltage, DC current, Thermocouple
- 32 digital inputs are individually programmable as NO, NC or NO with EOLR
- 2 frequency inputs

The flexible method is to utilize lower density "bricks"

- 16 digital inputs or outputs for NO, NC, AC/DC voltages, frequency (all individual plug in modules)
- 8 analog inputs / outputs for AC/DC voltage, AC/DC current, Thermocouple, RTD (all individual plug in modules)

The lower density brick with plug in modules provides smaller collectors, greater flexibility including output points for discrete displays, meters and alarm repeaters, however the per point cost is significantly higher.

Points list for each collector should detail:

On modernizing projects a soft copy listing of existing alarm points and calibration data will greatly assist in value engineering.

- number and type of digital inputs, NO, NC, NO with EOLR
- number and type of analog inputs 4-20mA, 0-10 VDC, RTD, TC, other

Qty/location of annunciators

The OmniChief is available in two versions:

- a full 96 point annunciator, with engraved tags, and LCD with keypad for programming/viewing alarm points. This version will act as a stand-alone alarm system i.e. the PC Computer is not required
- the LCD and keypad only as a supplement to a PC Computer.

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Qty/location of computers

PC compatible computers are available for Control Room or Bridge applications.

Special considerations:

- Bridge displays should have 100% dimming and an additional panel for alarm horn and silence pushbuttons.

If the full OmniChief annunciator is not used, the alarm system should have two separate PC Computers. In some cases this is a regulatory requirement.

Hardware options for the PC compatible computers include:

- Desktop or flush panel mount in either CRT display or LCD 15" or 18"
- Processor in desktop or rack-mount versions
- Commercial grade or full marine approved version to suit regulatory requirements

HMI screen options for the PC compatible computers include:

- Basic annunciator page showing a flashing alarm window for each points is standard (minimum) supply.
- Quantity and complexity of graphical screens is based on quantity of analog points for each machinery group.

Software options for the PC compatible computers:

Numerous options are available that include:

- Redundant network (additional hardware also required)
- Serial communication to electronic engines and other vessel machinery/systems
- Power management, and/or motor control
- Cargo/ballast control
- Interface to VDR, other Navigation equipment
- Ship to shore data transfer (additional hardware also required)

Alarm Repeaters

Alarm repeaters with operation completely independent of computers are available in several versions:

- Hardwired from digital output modules in alarm system, connected to type 8421 UDC display panel. This is the most flexible system we offer, as any number of repeater points to any number of locations is possible. Dimmable panels for bridge and crews quarters are available in 8, 16, 32, 48, 64 points.
- Serial communication from alarm signal processor, connected to type 8101 Alarm annunciator. These panels provide 16 or 32 repeater points for bridge installation.

Watchkeeping:

Cabin alarm, duty select and dead man alarm panels are available for integration into the alarm and alarm repeater system.

- Identify the number of panels for crew cabins and public spaces.
- Identify number of alarm points at each location.
- Identify if deadman alarm is required and number of reset pushbutton stations in machinery space.