

**Nautical Alarm System
with Watch Alarm
NA/WA PANELWARE
DESCRIPTION**

30th August 1996
SLB3, R. Meichau
Ladestraße 3 - 3A
D-28159 Bremen

Nautical Alarm System with Watch Alarm NA/WA PANELWARE

1. General

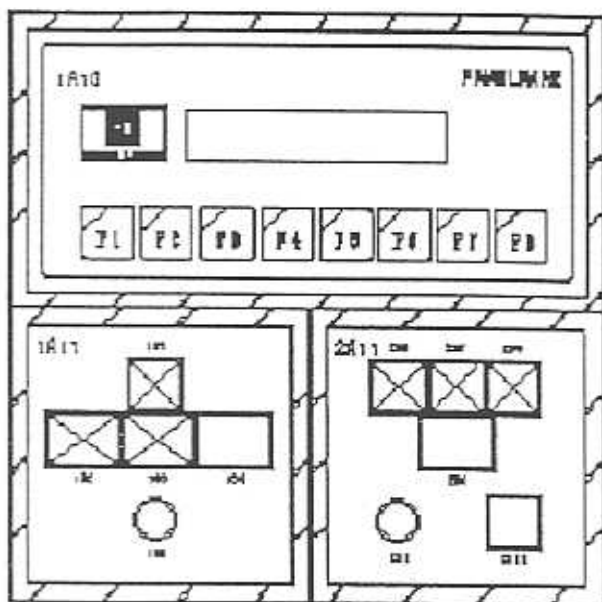
The "Nautical Watch Alarm System" (WA) is a programmable logic control system MICRO 311.

It will be delivered with indication and operation panel. The PLC is installed on a mounting plate.

The nominal power supply is 24 V DC and it is operating between 20 V and 30 V DC.

1.1 Nautic - Watch Alarm Panel

Size of panel 188 x 188 mm



Function Key F1 alarm: 01 / 02
 Function Key F2 alarm: 03 / 04
 Function Key F3 alarm: 05 / 06
 Function Key F4 alarm: 07 / 08
 Function Key F5 alarm: 09 / 10
 Function Key F6 alarm: 11 / 12
 Function Key F7 alarm: Information
 Function Key F8 Reset

2R1 Dimmer
 2S9 Time adjustment WA
 2H6 WA time 1,5 min.
 2H7 WA time 3,0 min.
 2H8 WA time 9,0 min.
 2S10 Lamp test

1H1 Power supply ON
 1H2 PLC in operation
 1S3 WA reset
 1S4 WA in operation
 1H5 Horn

2. Watch Alarm System

The system controls the nautical duty officer.

He has to reset the timer within the adjusted time. If he becomes unable to do it, there will be an acoustic signal to the accommodation area after 30 seconds and the general alarm will be released after 45 seconds.

2.1 Constructional Features

The watch alarm system consists of:

- indication power supply, on
- key switch interlock time delay
- key for time delay 1,5 min., 3 min., and 9 min.
- indication selected time delay
- reset and test key
- dimmer internal and external indication
- internal horn
- input external reset key
- output for external signaling system

2.2 Function

After power supply on, the system is ready for operation.

Indication: Power Supply ON.

Key switch functions:

- activate system,
- activate timer,
- set timer.

Adjustment Timer

- Unlock system with key switch,
- set time with key,
- selected time will be indicated (dimnable),
- activate system with key switch.

Operation

After selected time, the lights in all watch alarm keys start flashing. The reset has to be done within 15 sec., if not, the buzzer on the panel starts. If there is still no reset, the acoustical signal in accommodation area will start after another 15 sec. and after the next 15 sec. the general alarm system will be activated.

By pushing one of the reset keys, the timer starts again.

In case of system failure, there will be an indication on the duty alarm panel.

3. Nautical Watch Alarm System

The nautical watch alarm system (NA/WA Panelware) is a programmable logic control system for 12 alarm inputs.

Central Unit CPU

The central unit CPU 311/03 is a central controlling calculating unit with integrated interface.

Interface Port 1 for communication with the panel.

Interface I/O EXP Link for data transfer to duty alarm system.

Binary Data Capture

Binary input as normal closed (NC), normal open (NO) contacts with 24 V DC level.

- LED green: "Power Supply"
 - ON: power supply ok
 - OFF: power supply failure

- LED yellow: "Ready"
 - ON: system running
 - OFF: system failure

- LED green: "RUN"
 - ON: program running
 - OFF: program failure

- LED red: "BAT LOW"
 - ON: system ok (battery not necessary)

- LED green: "Port I"
 - ON: interface port 1 active
 - OFF: interface port 1 not active

- LED green: "EXP LINK"
 - ON: interface port exp. link active
 - OFF: interface port exp. link not active

3.1 Monitoring of Nautic Watch Alarm System

Following diodes have to be on:

- Power ok
- Ready
- Batt Low

In case of missing indication, switch system "OFF" and "ON" again.
A system failure will be indicated on the duty alarm system.

3.2 Recording and Processing of Nautical Alarms

Every alarm has a separate input, they start with input no. 1.
The system is working in positiv logic, that means, the voltage at the INPUT corresponds to a logical 1 (LED ON), alarm input ok.
The alarms will be sensed zyclically.
Alarms can be time delayed.

Alarm indications:

- internal and, if not reset, external acoustic,
- indication diode function key,
- display indication on panel.

3.3 Panel Nautic Alarm System

Display for alarms
LEDs in function keys for indication

Function Key F1: nautic alarm 01 / 02
Function Key F2: nautic alarm 03 / 04
Function Key F3: nautic alarm 05 / 06
Function Key F4: nautic alarm 07 / 08
Function Key F5: nautic alarm 09 / 10
Function Key F6: nautic alarm 11 / 12
Function Key F7: information nautic alarm
Function Key F8: reset buzzer

Reset of acoustical signal:

- keys watch alarm (bridge and wings)
- function key F8

Reset optical alarm

- function keys F1 to F6 (only possible after acoustical reset).

30th August 1996