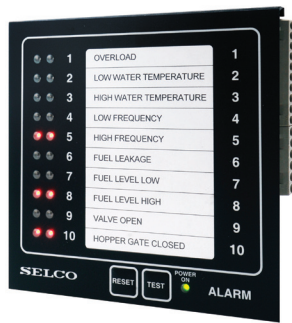
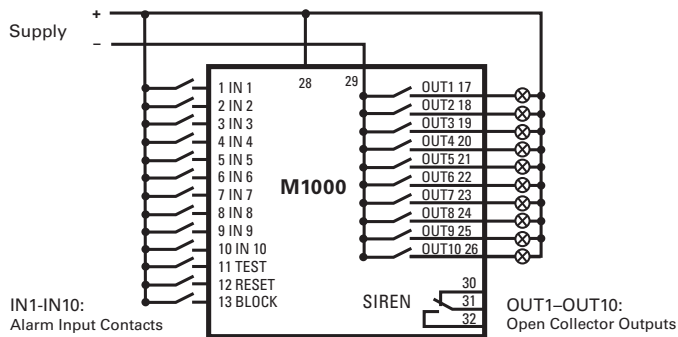


## M1000 Alarm Monitor Plus - D-version



### Simplified Circuit Diagram



### Description

Inputs from a dry contact (normally open NO or normally closed NC) will cause the corresponding LED to flash. Simultaneously a common alarm output and a siren output will be activated as well as an individual output.

The unit has separate indications of first alarm, following alarms and acknowledged alarms. It also has dedicated inputs for remote reset and alarm blocking.

The unit can be configured for sensor health monitoring and monitoring of its own supply voltage and insulation level.

Multiple M1000 units can be interconnected to form a large scale alarm system. In this situation functions are available for synchronizing the flashing of the LEDs and enabling global indication of first alarm for all connected units.

Alarm related parameters like time delays, reset functions and other features can be configured through 16 programming switches or by PC through a USB interface. An alarm log is available through the USB interface or the embedded web server as well.

The M1000 is equipped with a 2-wire RS485 interface supporting MODBUS-RTU and an Ethernet interface supporting Modbus TCP.

### Features & Benefits

FEATURES	BENEFITS
<b>10 configurable digital inputs</b>	Supports both NO and NC input contacts
<b>11 open collector outputs</b>	Allows external control and remote indication
<b>1 siren relay output</b>	Direct connection of alarm siren
<b>Special indication of first alarm</b>	Provides clear alarm overview in larger systems
<b>Event Log</b>	Access to alarm history
<b>Multiple units can be connected as one system</b>	Modular and scalable solution
<b>Voltage and insulation monitoring</b>	Replaces voltage and insulation monitoring relay on the DC system
<b>Dimming of LEDs</b>	Suitable for bridge consoles
<b>Type-approved by marine classification societies</b>	Applicable in harsh environments
<b>Configuration by DIP switches or PC (through USB)</b>	Easy installation and configuration
<b>RS485 (Modbus RTU) Ethernet (Modbus TCP) Embedded Web Server</b>	Communication with HMI and SCADA systems

### Additional features compared to M1000 C-version

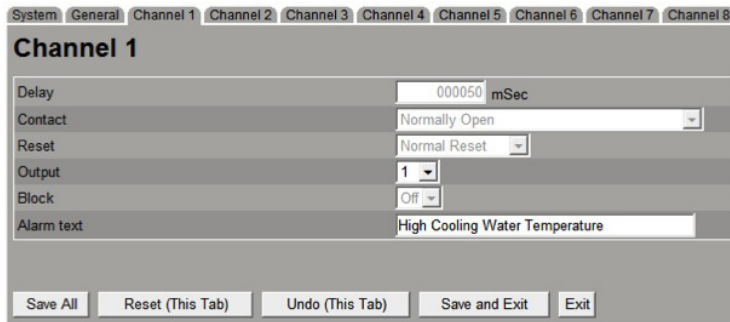
The D version of the M1000 offers all the features available in the C version and is fully compatible with it. Additionally the D version includes Ethernet communication, an embedded web server and an alarm log.

Connection to the PC is done through a USB interface. The M1000D acts as a USB mass storage device. The configuration program and log viewer are directly accessible from this mass storage device, thus no further installation of configuration or log software on the PC is necessary.

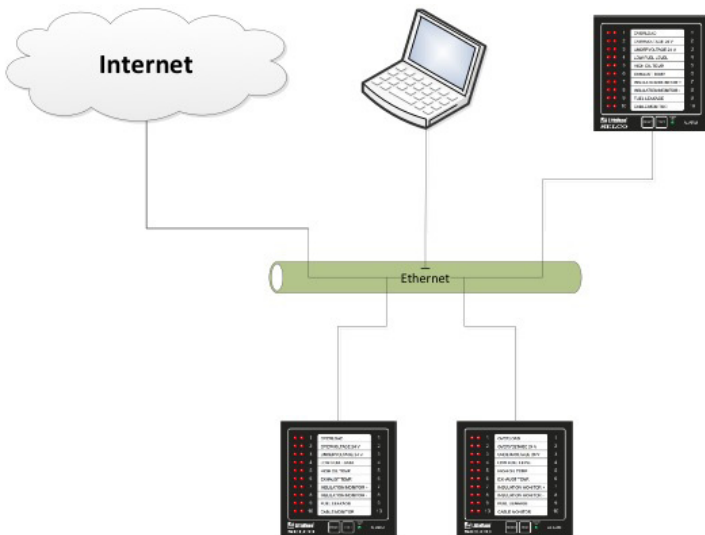
### Ordering Information

ORDERING NUMBER	CONTROL POWER	FUNCTION
M1000.0500	12-24 Vdc	IP54 front

## View of the programming software



## Ethernet Communication



## View of the M1000 Log Through the Embedded Webserver

```

2014-22-10;12:22:38;EVENT;M1000 startup
2014-22-10;09:36:16;ACK ;Alarm 09;Genset 3 common alarm
2014-22-10;09:36:16;ACK ;Alarm 06;Stern thruster common alarm
2014-22-10;09:36:16;ACK ;Alarm 03;Steering gear pumps fault
2014-22-10;09:36:16;ACK ;Alarm 01;Spill oil tank level high
2014-22-10;09:36:14;OFF ;Alarm 09;Genset 3 common alarm
2014-22-10;09:36:13;NEW ;Alarm 09;Genset 3 common alarm
2014-22-10;09:36:13;OFF ;Alarm 06;Stern thruster common alarm
2014-22-10;09:36:12;NEW ;Alarm 06;Stern thruster common alarm
2014-22-10;09:36:12;OFF ;Alarm 03;Steering gear pumps fault
2014-22-10;09:36:11;NEW ;Alarm 03;Steering gear pumps fault
2014-22-10;09:36:11;OFF ;Alarm 01;Spill oil tank level high
2014-22-10;09:36:11;FIRST;Alarm 01;Spill oil tank level high
2014-22-10;09:36:11;OFF ;Alarm 07;Genset 1 common alarm
    
```

## Specifications

<b>Voltage Supply</b>	12-24 Vdc-30%/+30% (8-32 VDC)
<b>Max. Power Consumption</b>	180 mA
<b>Ambient Temp.</b>	-20°C to +70°C
<b>Siren Relay Contact Output</b>	220 Vac/2 A; 30 Vdc/2 A, 30 W Max. 150 mA per channel
<b>Resistance in Sensing Cable</b>	Max. 1000 Ω
<b>Insulation Monitor</b>	25 kΩ±8 kW
<b>Impulse Test</b>	4.5 kV 1/50 μsec.
<b>EMC</b>	CE according to EN60255-26
<b>Programming</b>	16 dip-switches or via PC (USB interface)
<b>Log Viewer</b>	Available through USB interface or the embedded web server
<b>Communication</b>	RS485 interface, Ethernet interface
<b>Weight</b>	0.4 kg
<b>Dimensions</b>	<b>H</b> 144 mm (5.7"); <b>W</b> 144 mm (5.7"); <b>D</b> 35 mm (1.4")
<b>Panel Cut-out</b>	<b>H</b> 138 mm (5.4"); <b>W</b> 138 mm (5.4")
<b>Protection Degree at Front</b>	IP54