M4200 Process Alarm Monitor

- Compact unit for flush mounting
- Programmable LED colour change (red, green or yellow)
- Special indication of the first alarm
- 8 input channels supporting normally open or normally closed contacts
- Individual LED indication of each of the 8 inputs
- Individual time delay on all channels
- 2 individual blocking modes for easy service
- Special indication of cable break or short circuit
- PC based programming via RS232
- 1 common output relay for siren
- 2 programmable output relays
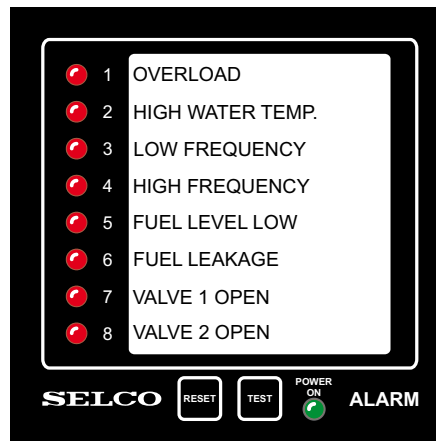- 3 programmable "Open Collector" outputs

Figure 1. Front of M4200

Application

The M4200 Alarm Monitor provides a cost effective solution, with the possibility of monitoring 8 individual processes. All inputs will accept any combination of NO or NC contacts.

Each input can be programmed to control both of the two alarm relays for group alarm outputs. All inputs will in default mode activate the alarm relay and the siren relay. The delays for the inputs can be individually selected between 25 milliseconds and 999 seconds.

Function

When alarm input is activated, the LED goes flashing and the interconnected output(s), alarm 1 and the siren goes ON.

When the reset button is being activated, the LED goes steady and the siren goes OFF. The interconnected output(s) is still ON.
When the alarm input is de-activated, LED goes OFF, together with alarm 1 and the interconnected outputs.

Please refer to the function diagram in figure 2.

Label layout

A text description for the LEDs can be printed on the blank legend card situated between the two covers at the front.
SELCO A/S also provides a Microsoft® Office Word template for doing this in an easy manner.

Cable Monitoring

Cable monitoring provides extra security to the alarm system.

When using cable monitoring it is possible to translate both cable break and short circuit faults into an alarm (cable fault) whenever a NO or an NC contact is connected to the input(s).

Cable faults are indicated with short flashing pulses on the corresponding alarm channels. Cable fault indications will be overridden by activation of input alarms and indicated with normal flash or steady light indication.
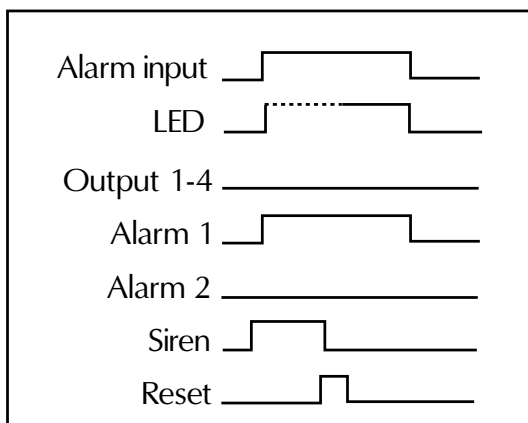

Figure 2. Function Diagram, Default Scenario

Specifications

M4200 Process Alarm Monitor

Voltage supply	8.4 - 60 VDC
	8.4 - 50 VAC
Power Consumption	Max 180mA
Ambient temp. range	÷15 ºC / +70 ºC
Relay output (load capacity)	Max. 250VAC / 6A
	Regarding DC load capacity, refer to the user manual
Open collector output (load capacity)	Max. 60VDC / 700mA per output
LED flash frequency: Slow flashing	1.25Hz ±10%
LED flash frequency: Quick flashing	5Hz ±10%
Min. input delay	25 m. Sec
Resistance in sensing cable	1000Ω (full length)
Programming	Dip switches or PC based configuration
RS232 Bits per second	9600
RS232 Data bit	8
RS232 Parity	None
RS232 Stop bit	1
RS232 Flow control	None
RS232 Line delay (ASCII Setup)	50 milliseconds
RS232 Character delay **(ASCII Setup)**	0 milliseconds
Burn-in	50 hours before final test
Maritime application standards	IEC 60945
Industrial application standards	EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6
Weight	0.222 Kg
Dimension (mm)	96 x 96 x 20 (H x W x D)
Panel cut out (mm)	92 x 92
Protection degree at front	IP 54

Dimming

It is possible to adjust the brightness of the LEDs on all multiple units by pressing the button "Test" or the external positioned button connected to terminal 11, for more than 10 seconds.

Dimming is done in 8 consecutive levels. The default brightness level is re-obtained when the lowest level has been obtained.

Programming

Sunken into the rear of the Alarm Monitor, one rotary switch and two dip switches are positioned.

With the rotary switch it is possible to select which part of the program to be adjusted, channel selection (1-8), operational mode (0) or general functions (9).

With the two dip switches it is possible to adjust the program selected on the rotary switch, e.g. time delay, reset settings, block mode, LED colour etc.
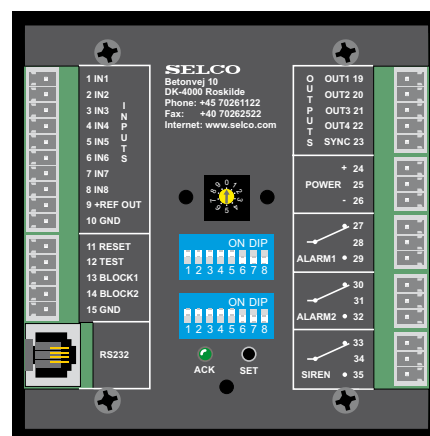

Figure 3. Rear of M4200

PC based configuration

M4200 can be configured via the RS232 interface. A standard ANSI / VT100 terminal is used as the programming tool. SELCO A/S recommends Microsoft® Hyper Terminal.

For further information please refer to the User Manual which can be downloaded from www.selco.com.

SELCO Worldwide

Belgium	New Zealand
Brazil	Norway
Bulgaria	Pakistan
Canada	Peru
Chile	Philippines
China	Poland
Croatia	Portugal
Egypt	Romania
Finland	Russia
France	Singapore
Germany	South Africa
Greece	South Korea
Iceland	Spain
India	Sri Lanka
Indonesia	Sweden
Iran	Taiwan
Italy	Thailand
Japan	Turkey
Lebanon	United Kingdom
Malaysia	U.S.A.
Mexico	Venezuela
Netherlands	Vietnam

M4295-84UK