Alarm Monitor - M4200

User manual

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Introductory notes

This manual describes installation and operating instructions together with dip switch configuration of the Alarm Monitor M4200.

This manual also includes information about how to configure the product, using the included RS232 cable and a Windows® PC running Microsoft® HyperTerminal.

Layout

Below is a description of the facilities on the front and the rear of the unit.

Facilities on the front

8 LEDs, one for each input terminal. By programming it is possible to change the colour individually for each LED, into red, green or yellow.

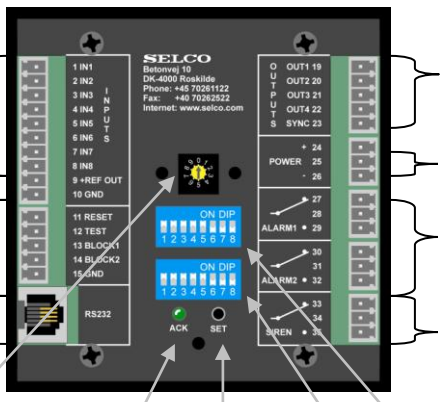
Green LED. Active when power is on.

When **reset** button is pushed, all relay outputs go off and LED status change from flashing to steady mode

When **test** button is pushed, all LEDs show steady light. Hold down the button and test status will change from red into green and into yellow.

Keep down the button and dimming of all LEDs can be done in 8 consecutive levels.

Facilities on the rear



Input terminals. Used for connection of potential free contacts. Both NO and NC contacts are supported.

+REF and **GND**. Reference to inputs. **+REF** is the same as positive power reference. **GND** is galvanically separated from the negative power reference.

Reset, **test** and **block** functionality for remote activation. **GND** is common reference.

RS232 interface. Used for connection with PC.

Output terminals. 4 open collector outputs for remote control of external lamps or relays.

Sync. Used for synchronization of flashing LEDs on multiple M4200 units.

Power. Terminal 24 is positive reference. Terminal 26 is negative reference. Terminal 25 is not in use.

Output relays. Alarm 1 is default activated when inputs are active. It is possible to set up activation mode for both alarm 1 and 2.

Siren relay. Default activated when inputs are active. It is possible to set up activation mode for the siren relay.

10 channel rotary switch. Used for switch configuration of the unit:

- 0: Operational mode
- 1 - 8: Set input 1 - 8
- 9: Set general functions

Set button. Used for accept of rotary and dip switch settings.

8 dip switches. Used for configuration of the unit. Named in documentation as 1-1 to 1-8.

8 dip switches. Used for configuration of the unit. Named in documentation as 2-1 to 2-8.

Acknowledge LED. Indicates that programming by set button is accepted.

Function

The Alarm Monitor M4200 provides the possibility of monitoring 8 individual processes. All inputs will accept any combination of NO or NC contacts.

It is possible to programme each input, e.g. to activate the siren relay, the two alarm relays or the four open collector outputs. The delays for the inputs can be selected between 25 milliseconds and 60 seconds.

With the default configuration on M4200, the alarm scenario will unfold as shown in Figure 1.

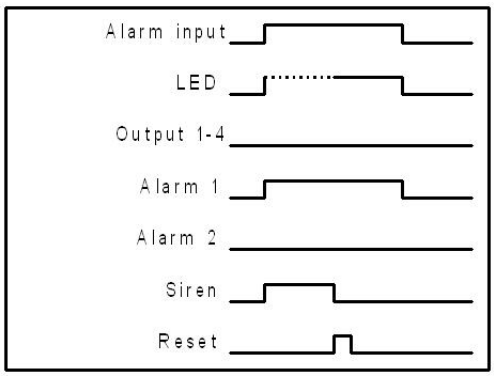


Figure 1. Function diagram, default scenario.

Function diagram

When alarm input is activated, the LED goes flashing, alarm relay 1 and the siren relay goes ON.

When reset button is activated, the LED goes steady and the siren goes OFF.

When alarm input is de-activated, LED goes OFF, together with alarm 1.

Installation instructions

This section contains information about how to install the alarm monitor.

Single unit

Figure 2 shows the default connection of the input and output terminals on the alarm monitor. Input terminals 1 - 8 are connected to *+REF OUT* (positive supply) via potential free contacts.

Reset, test and block terminals are connected to *GND* via potential free contacts.

Lamps are connected to the outputs; the lamps are supplied from same source as the unit. Terminal 26 is connected to ÷ (negative supply).

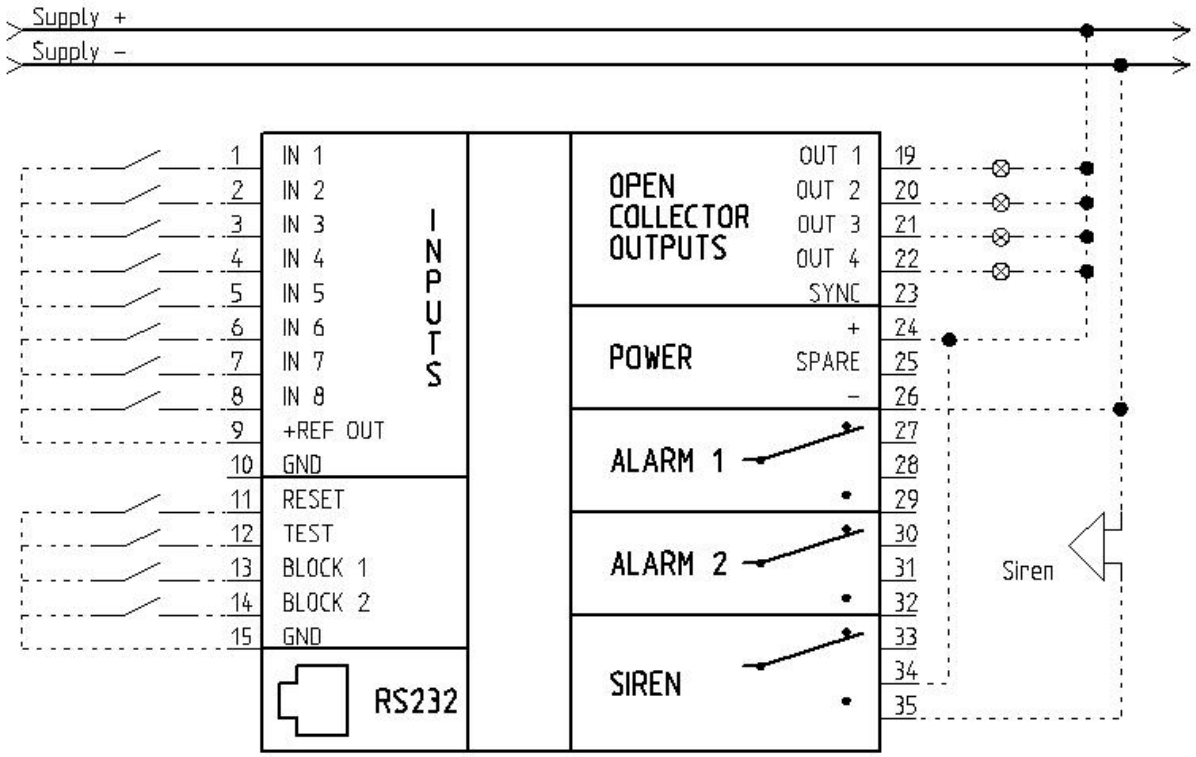


Figure 2. Wiring example, single unit (default connection).

Multiple units

Figure 3 shows the default connection of the input and output terminals on two M4200 units. Input terminals 1 - 8 are connected to *+REF OUT* (positive supply) on one of the units via potential free contacts.

Test terminals are connected to *GND* on both units via potential free contacts (test and block terminals can be connected by the same method).

Lamps are connected to the outputs; the lamps are supplied from same source as the units. Terminal 26 is connected to ÷ (negative supply).

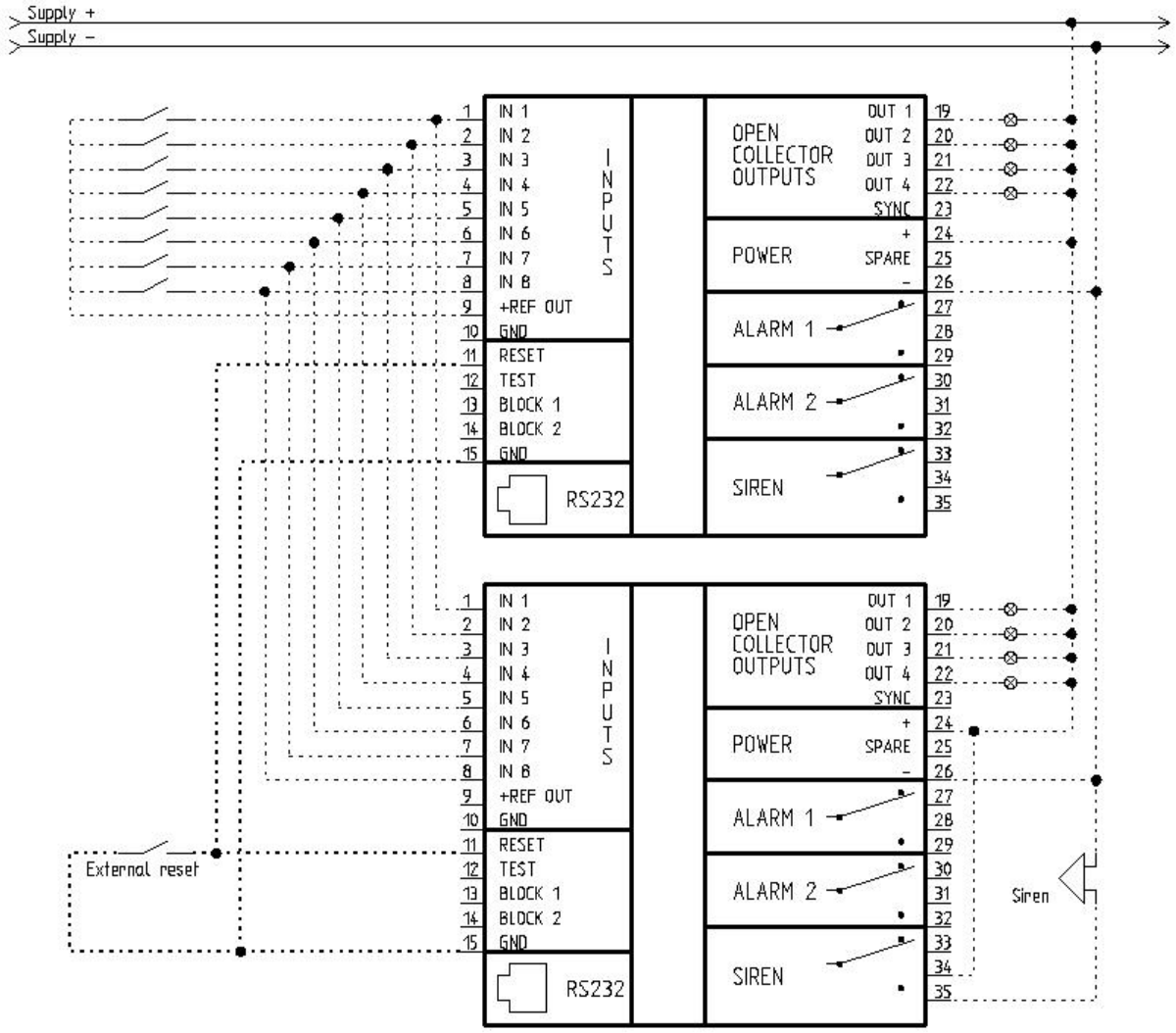


Figure 3. Wiring example, multiple units with external reset (default connection).

Synchronisation

If multiple units are positioned side by side it can be desirable that all LEDs, on all the units are flashing with the same speed rate.

If all *Sync* terminals (23) on all the multiple units are connected with each other, all LEDs will operate with the same speed rate.

No further configuration is needed. The *Sync* functionality has no other importance than providing visual continuity.

Relay outputs

The alarm monitor has 3 output relays; all of them can be activated by any of the 8 alarm inputs. The relays can work as de-energized or energized, when the power is on the alarm monitor. The alarm monitor is delivered with all output relays operating in normally de-energized mode.

This section contains information about the 2 principles and how and when to use them.

This section only contains information about the relay outputs (terminal 27 - 35). The examples in this section are based on the siren relay, but all of the 3 output relays can be used individually with the same functionality.

Normally de-energized

Figure 4 shows the default connection of the output terminals on the alarm monitor.

The alarm monitor is delivered with all output relays operating in normally de-energized mode. This means that the relay stays in the same position, whether the power is on or off. When an incoming alarm activates the relay, the position will change from terminal 33 to 35 (siren relay).

The output relay is supplied from same source as the unit. The siren is connected to the output relay. Terminal 26 and the siren are connected to ÷ (negative supply).

NOTE:
Regarding load capacity for the output relays, please refer to the section *Load capacity* on page *9* in this manual.

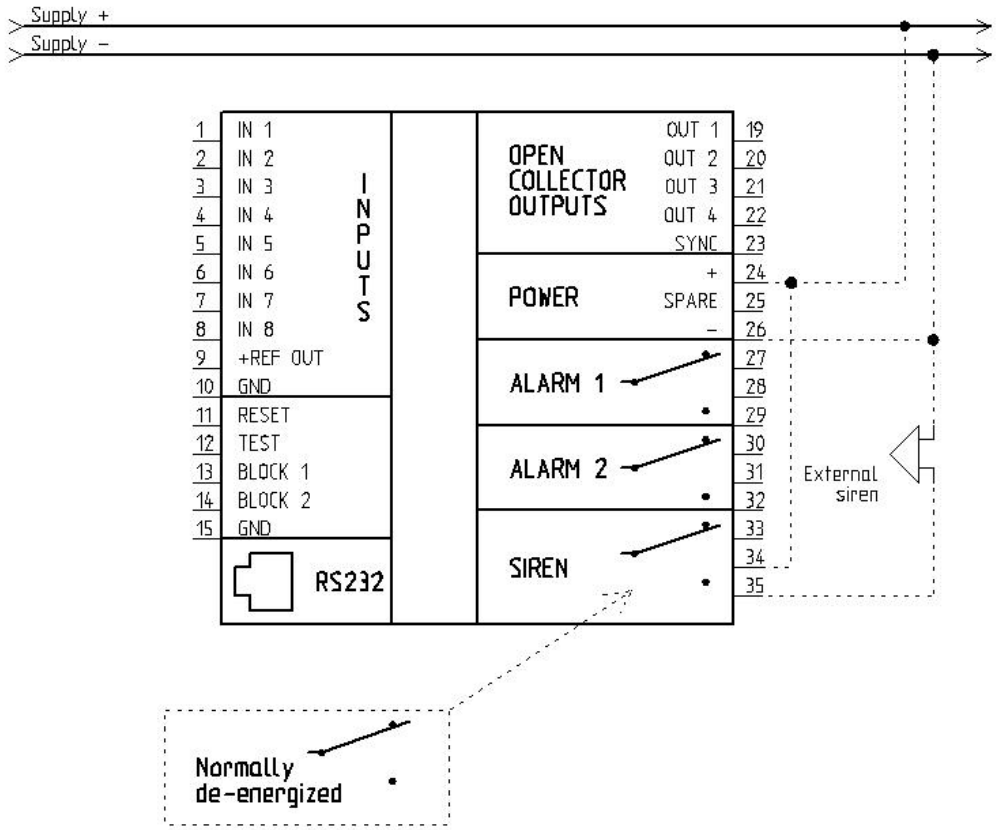


Figure 4. Wiring example, normally de- energized relay (default connection).

Normally energized

Figure 5 shows the connection of the output terminals when the relay is programmed to be normally energized.

It is possible to programme each of the output relays to operate individually as normally energized. This means that the relay changes position from terminal 33 to terminal 35 (siren relay) when the power is switched on.

When an incoming alarm activates the relay, the position will change from terminal 35 to 33 (siren relay). The same scenario will appear if the supply voltage disappears from the alarm monitor. This is a big advantage when alarm is needed, if breakdown of the alarm system occurs.

If supply voltage disappears from the alarm monitor and alarm is needed, it is very **important** to use another supply unit for the output relays, than used for the supply voltage of the alarm monitor.

The output relay is supplied from another source than the alarm monitor. The siren is connected to the output relay. The siren is connected to another ÷ (negative supply) than that of the alarm monitor.

NOTE:
Regarding load capacity for the output relays, please refer to the section Load capacity on page *9*.

To use any of the three output relays as normally energized, programming is needed. For further information about programming please refer to the section *Programming by switches* on page *14* or *Programming by PC* on page *26*.

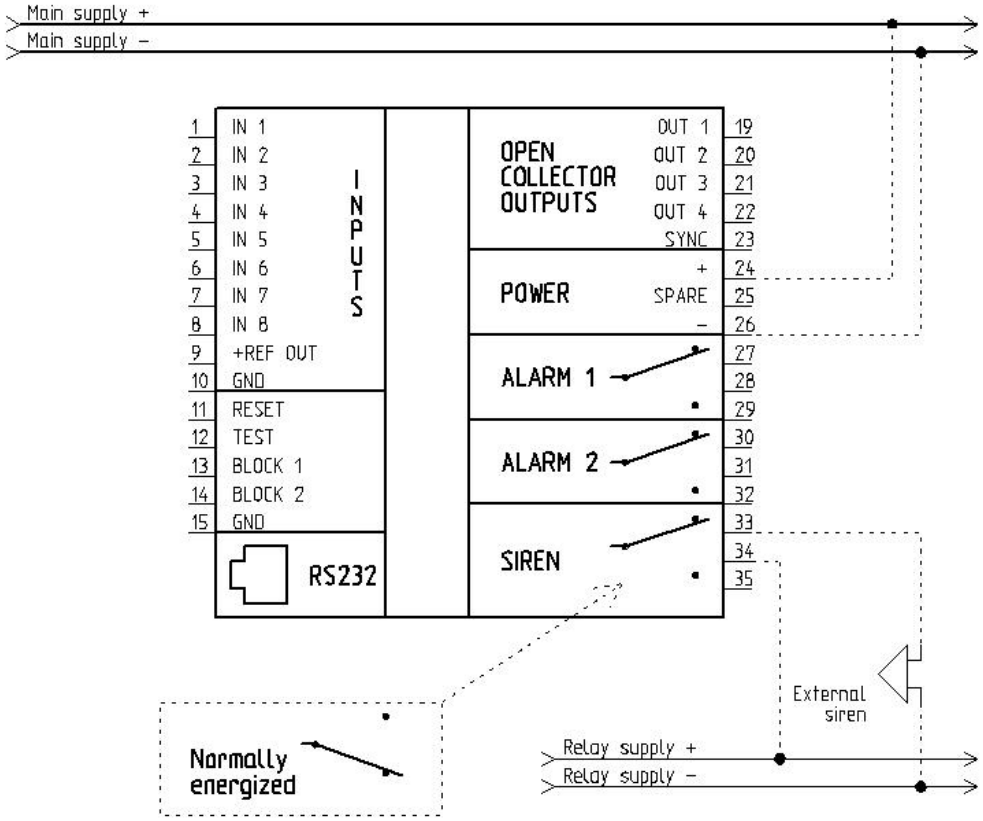


Figure 5. Wiring example, normally energized relay.

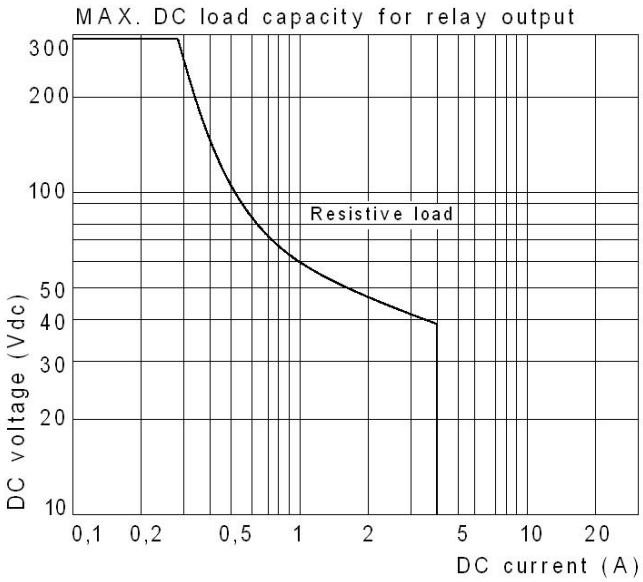
Load capacity

The output relays are able to manage any kind of resistive load. The load capacity depends on whether AC or DC voltage is connected to the relay.

Below is listed the maximum load capacity for AC and DC voltage respectively:

Max. AC load: 250VAC / 4A

Max. DC load:



Readings of DC load capacity curve above:

VDC	Ampere
10	4
12	4
24	4
48	2
110	0,5
300	0,1

Open collector outputs

The alarm monitor has 4 open collector outputs; all of them can be activated by any of the 8 alarm inputs. These outputs are able to work as energized or de- energized, similar to the output relays. This section contains information about the 2 principles and how to use them.

Figure 6 shows the connection diagram of the output terminals (terminal 19 - 22) on the alarm monitor.

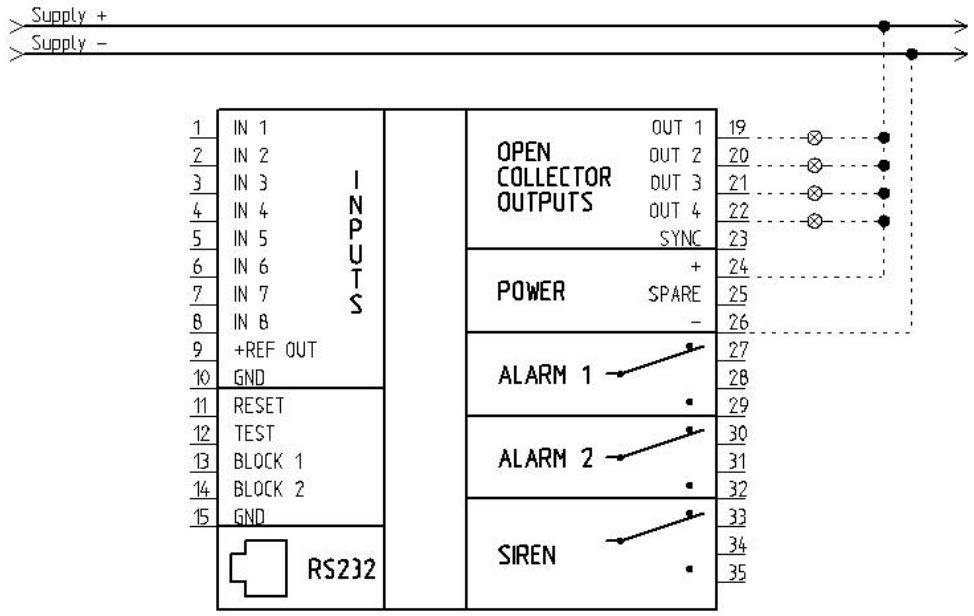


Figure 6. Wiring example, open collector outputs.

Normally de-energized

The alarm monitor is delivered with all open collector outputs operating as normally de-energized.

This means that the output has no reference whether power is on or off. When an incoming alarm activates the output, status is changing to negative (÷) reference.

Normally energized

It is possible to programme each of the open collector outputs to operate individually as normally energized.

This means that the output changes to negative (÷) reference when the power is switched on. When an incoming alarm activates the output, status is changing and the negative (÷) reference disappears.

Load capacity

Maximum load capacity for the open collector outputs is 60VDC / 700mA.

NC input contacts

IMPORTANT: It is only recommended to use the example below if the alarm monitor is still in factory default mode. If there is any possibility that the alarm monitor has been programmed previously, please refer to the section *Factory default - dip switches* on page *15*.

Example

Input 1 - 8 accept any combination of NO or NC contacts. Default configuration only supports NO contacts. If NC contacts are used, please follow the example below regarding *input 1, terminal 1*:

1. Set rotary switch in position *1* (acknowledge LED change into red colour).
2. Set dip switch *1-1* to *On* (NC contact).
3. Press *Set* button until *Acknowledge LED* shortly turns into green light.
4. Release *Set* button.

Now it is possible to connect input 1 as shown in Figure 7:

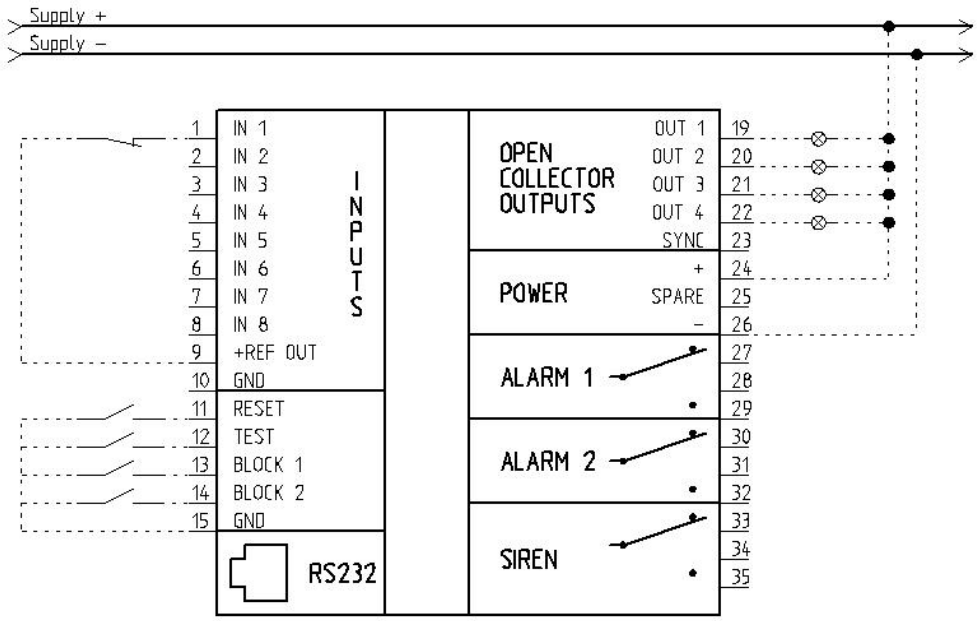


Figure 7. Wiring example, NC input

If NC contacts are needed on any other input channels, please select the input number on the rotary switch and follow step 3 and 4 above.

Cable monitoring

Cable monitoring provides extra security to the alarm system. 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 alarm flash or steady light indication.

IMPORTANT: It is only recommended to use the example below if the alarm monitor is still in factory default mode. If there is any possibility that the alarm monitor has been programmed previously, please refer to the section *Factory default - dip switches* on page *15*.

Example

The example below refer to input 1, terminal 1:

1. Set rotary switch in position *1* (acknowledge LED change into red colour).
2. Set dip switch *1-3* to *On* (Cable monitoring).
3. Press *Set* button until *Acknowledge LED* shortly turns into green light.
4. Release *Set* button.

Now it is possible to connect input 1 as shown in Figure 8 and

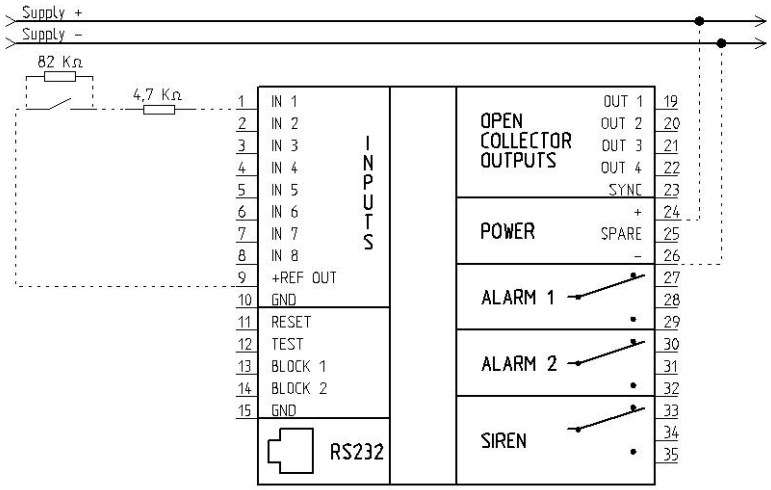


Figure 8. Wiring example, cable monitoring on input 1

If cable monitoring is needed on any other input channel, please select the input number on the rotary switch and follow step 3 and 4 above.

Notice that two measuring resistors (1 in series and 1 in parallel) are needed for each of the inputs operating with cable monitoring. It is very **important** that both resistors are mounted close to the input contact.

Input reference

In the example above + *REF OUT (9)* is used as input reference. It is possible to use both + *Ref (9)* and *GND Ref (10)* with cable monitoring without further configuration.

Normally open inputs

- The resistor in parallel is monitoring cable break.
- The resistor in serial is monitoring short circuit.

Normally closed inputs

- The resistor in parallel is monitoring short circuit.
- The resistor in serial is monitoring cable break.

Inputs in general

However the input is operating as, normally open or normally closed, same size of resistors is used.

Input reference

IMPORTANT: It is only recommended to use the programming example below if the alarm monitor is still in factory default mode. If there is any possibility that the alarm monitor has been programmed before, please refer to the section *Factory default - dip switches* on page *15*.

Example

It is possible to set up input 1-8 individually to positive or negative reference. Default configuration is positive reference via the terminal *+REF OUT*.

If negative reference is needed, please follow the example below regarding *input 1, terminal 1*:

1. Set rotary switch in position *1* (acknowledge LED change into red colour).
2. Set dip switch *1-2* to *Off* (GND reference).
3. Press *Set* button until *Acknowledge LED* shortly turns into green light.
4. Release *Set* button.

Now it is possible to connect input 1 as shown in Figure 9:

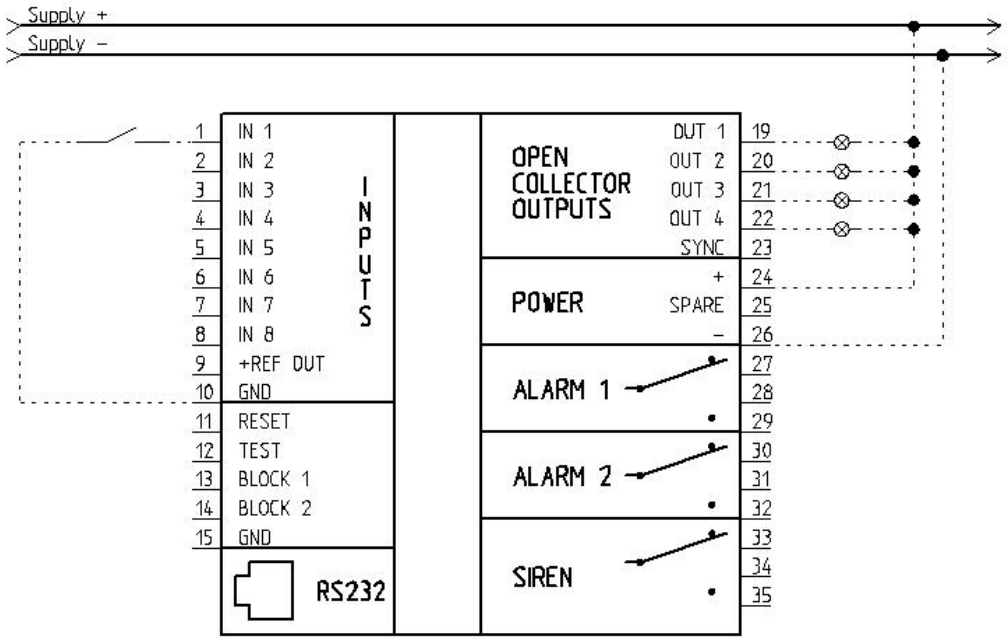


Figure 9. Wiring example, GND

If GND reference is needed on any other input channel, please select the input number on the rotary switch and follow step 3 and 4 above.

Programming by switches

There are two ways of programming the alarm monitor; by dip switches on the rear of the unit or by any standard ANSI compatible terminal application e.g. Microsoft® HyperTerminal (which is supplied with the Windows® operating system) or any other ANSI terminal.

When using a standard ANSI compatible terminal application, the configuration is done through a PC, via the special RS232 cable, which is delivered with the M4200 unit.

This section only contains information about programming by dip switches.

Switches
All switches needed for programming are located on the rear of the alarm monitor. There is 1 rotary switch with 10 channels for mode selection and 2 rows of dip switches with each 8 dip switches for choosing different programming facilities.

Below is a description of the functions, both on the rotary switch and the dip switches.

Rotary switch - operational principle

Below is an explanation of the different modes on the rotary switch. Figure 10 illustrates the different modes schematically.

Position “0” is operational mode. This mode is default selected and means that the alarm monitor is running in alarm mode.

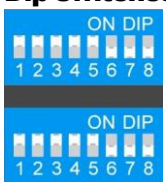
Position 1 – 8 is programming mode for each of the input channels. Programming functions into channel 1, set the rotary switch in position 1 etc.

Position 9 is programming mode for general functions, such as block, delay and reset functions.

Position	Mode
0	Operational (alarm)
1	Set input 1
2	Set input 2
3	Set input 3
4	Set input 4
5	Set input 5
6	Set input 6
7	Set input 7
8	Set input 8
9	Set general functions

Figure 10. Modes on rotary switch.

Dip switches - operational principle



8 dip switches (1. row). Named in documentation as 1.1 to 1.8.

8 dip switches (2. row). Named in documentation as 2.1 to 2.8.

There are 16 dip switches spread on 2 rows with 8 in each row. Each dip switch has 2 positions; ON and OFF (2 functions per dip switch).

The functions of each dip switch depend on the position of the rotary. This means that 2 × 16 (on/off) different settings are available on each of the 9 positions on the rotary switch (no programming facilities are available when the rotary switch is in position 0, operational mode).

When the rotary switch is in position 1 – 8, each dip switch has the same functions because the same functions are needed on each input channel.

Factory default - dip switches

Figure 11 shows how all the dip switches are set, when the alarm monitor leaves the SELCO factory. Before starting any programming session on the alarm monitor, it is recommended to set all dip switches as shown in Figure 11.

The reason is that when saving is done by the set button, all settings will be saved even though only a few dip switch positions have been changed.

	Top row of dip switches (1)							
ON		X						X
OFF	X		X	X	X	X	X	
	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8

	Bottom row of dip switches (2)							
ON			X		X			
OFF	X	X		X		X	X	X
	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8

Figure 11. Dip switch settings (factory default).

Factory default – all settings

It is possible to return all settings on the alarm monitor into factory default by 1 operating cycle:

1. Set the rotary switch in position 0.
2. Press the button “Set” (the colour of the “Ack” LED changes into red light).
3. Hold “Set” button down in 5 seconds.
4. The colour of the “Ack” LED changes into green light.
5. Release the “Set” button.

Now all settings are returned to factory default. It is still necessary to set up all dip switch contacts manually (please refer to the previous section in this manual

Set button

The set button is positioned on the rear of the alarm monitor, below the dip switches.

This push button is used for accept of rotary and dip switch settings. Set button is related to the rotary switch, which means that all dip switch settings made, in the selected position of the rotary switch, will be saved when the set button is pushed.

IMPORTANT
It is very important to check the position of all 16 dip switches before set button is pushed.

Acknowledge LED

Acknowledge LED is positioned on the rear of the alarm monitor, beside the save button.

When the rotary switch is in programming mode (Position 1 - 9) the LED gives a constant red light.

When set button is pushed and held down, the LED will flash 2 times and change into green light until set button is released. Green light indicates that saving the settings done by set button is accepted.

Dip switch - programming

This section lists all possible settings that can be done by the switches on the rear of the alarm monitor.

Before starting the programming session please read the previous section *Dip switches - operational principle* on page *15*.

Input settings

Before programming the input settings please select the position number on the rotary switch (position 1 - 8). In the table below the default settings are marked with **bold type**.

Switch row 1				
Function	**Switch setting**	**Switch setting**	**Switch setting**	**Description**
Input type	SW1.1			
	OFF ON			**Normally Open** Normally Closed
Input reference	SW1.2			
	OFF **ON**			GND **+VREF OUT**
Cable monitoring	SW1.3			
	OFF ON			**Inactive** Active
Input Delay	SW1.4	SW1.5	SW1.6	
	OFF OFF OFF OFF ON ON ON ON	**OFF** OFF ON ON OFF OFF ON ON	**OFF** ON OFF ON OFF ON OFF ON	**25 ms** 500 ms 1 s 2 s 5 s 10 s 30 s 60 s
LED Colour	SW1.7	SW1.8		
	OFF **OFF** ON ON	OFF **ON** OFF ON		No light **Red** Green Yellow

Switch row 2		
Function	**Switch setting**	**Description**
Block1	SW2.1	
	OFF ON	**No effect** Block
Block2	SW2.2	
	OFF ON	**No effect** Block
Alarm1	SW2.3	
	OFF **ON**	No effect **Activate**
Alarm2	SW2.4	
	OFF ON	**No effect** Activate
Siren	SW2.5	
	OFF **ON**	No effect **Activate**
Out1	SW2.6	
	OFF ON	**No effect** Activate
Out2	SW2.7	
	OFF ON	**No effect** Activate
Out3	SW2.8	
	OFF ON	**No effect** Activate

General settings

Before programming the general settings please select the position number on the rotary switch (position 9).
In the table below the default settings are marked with **bold type**.

Switch row 1		
Function	**Switch setting**	**Description**
Alarm Relay 1	SW 1.1	
	OFF ON	**Normally De-energized** Nomally Energized
Alarm Relay 2	SW 1.2	
	OFF ON	**Normally De-energized** Nomally Energized
Siren Relay	SW 1.3	
	OFF ON	**Normally De-energized** Nomally Energized
Open Collector 1	SW 1.4	
	OFF ON	**Normally De-energized** Normally low
Open Collector 2	SW 1.5	
	OFF ON	**Normally De-energized** Normally low
Open Collector 3	SW 1.6	
	OFF ON	**Normally De-energized** Normally low
Open Collector 4	SW 1.7	
	OFF ON	**Normally De-energized** Normally low
Spare	SW 1.8	
	OFF ON	**No effect** No effect

Switch row 2			
Function	**Switch setting**	**Switch setting**	**Description**
UnBlock Delay Gr1	SW 2.1	SW 2.2	
	OFF OFF ON ON	**OFF** ON OFF ON	**1 Sec** 5 Sec 10 Sec 15 Sec
UnBlock Delay Gr2	SW 2.3	SW 2.4	
	OFF OFF ON ON	**OFF** ON OFF ON	**1 Sec** 5 Sec 10 Sec 15 Sec
Reset button	SW 2.5		
	OFF ON		**One push: Reset all.** Two push: First siren, second LEDs
Alarm relay 1*	SW 2.6		
	OFF ON		**Steady (no pulse)** New alarm: 2 second pulse
Alarm relay 2*	SW 2.7		
	OFF ON		**Steady (no pulse)** New alarm: 2 second pulse
Siren relay*	SW 2.8		
	OFF ON		**Steady (no pulse)** New alarm: 2 second pulse

(Relays) *
These functions are available from firmware version; January 2008.

Windows® software

There are two ways of programming the alarm monitor; by dip switches on the rear of the unit or by any standard ANSI compatible terminal application e.g. Microsoft® HyperTerminal (which is supplied with the Windows® operating system) or any other ANSI terminal.

Windows® NT, 2000, XP and Vista will normally install HyperTerminal by default. Windows® 95, 98 and ME will in contrast not install HyperTerminal by default.

This section describes how to locate and eventually install Microsoft® HyperTerminal on a PC. All information regarding wiring and communication between a PC and the alarm monitor is also available in this section.

Locate HyperTerminal on the PC

It is important to make sure that an ANSI terminal application is installed on the PC. To find out if Microsoft® HyperTerminal is already installed:

1. Click on the *Start* button (in the lower left corner of the Windows® screen).
2. Click on the menu item *All programs*)*.
3. Click on the menu item *Accessories*.
4. Click on the menu item *Communication*.
5. Check if there is a menu item named: *HyperTerminal*.

If you have already installed Microsoft® HyperTerminal, please continue in the section *Wiring* on page *22*.

*) On Windows® XP the button is named *All programs*. If the operating system is older than Windows® XP, the button is only named *Programs*.

Installing HyperTerminal

This section describes the procedure for installing HyperTerminal, which is supplied on the Windows® 9x CD-ROM.

Please note that the installing procedure for HyperTerminal might be a little different depending on which version of Windows® you have installed. It should, however, be possible to configure the system using this procedure:

1. Click on the Start button (in the lower left corner of the Windows® screen).
2. Click on the menu item Control panel.

When the Control Panel appears on the screen:

3. Double-click on the Add/Remove Programs icon.

When the Add/Remove Programs Properties dialogue appears on the screen:

4. Click on the tab Windows Setup.
5. Click on *Communications components*.
6. Click on the button *Details*.
7. Enable the check box just left of the HyperTerminal application.
8. Click on the button *OK*.

Windows will now ask for the installation CD-ROM. After inserting the CD-ROM, Windows will install the files needed for the HyperTerminal application.

Wiring

HyperTerminal is now fully installed and it is time for connecting the alarm monitor with the PC:

1. Plug one end of the supplied RS232 cable into the grey RJ plug (located in the lower left corner on the rear of the alarm monitor).
2. The other end of the cable (with the DB9 plug) connects to a PC COM port (COM1 is used in this manual).

Create a new connection

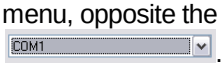
HyperTerminal is now fully installed and it is time for creating a new connection:

1. Click on the *Start* button (in the lower left corner of the Windows® screen).
2. Click on the menu item *All programs**).
3. Click on the menu item *Accessories*.
4. Click on the menu item *Communication*.
5. Click on the menu item *HyperTerminal*.

When the *New connection* dialogue appears on the screen:

6. Type in **Direct COM1** (assuming that COM1 is used for the connection) in the input field *Name*.
7. Click on the button *OK*.

When the *Connect to* dialogue appears on the screen:

8. Click on the drop down menu, opposite the input field *Connect to*, and choose which COM port you want to connect to, e.g. 

.
9. Click on the button *OK*.

When the *Port Settings* dialogue appears on the screen:

Please make sure that the dialog is filled out exactly like the picture above!

10. Click on the button *OK*.

*) On Windows® XP the button is named *All programs*. If the operating system is older than Windows® XP, the button is only named *Programs*.

ASCI settings

The HyperTerminal dialogue appears on the screen.

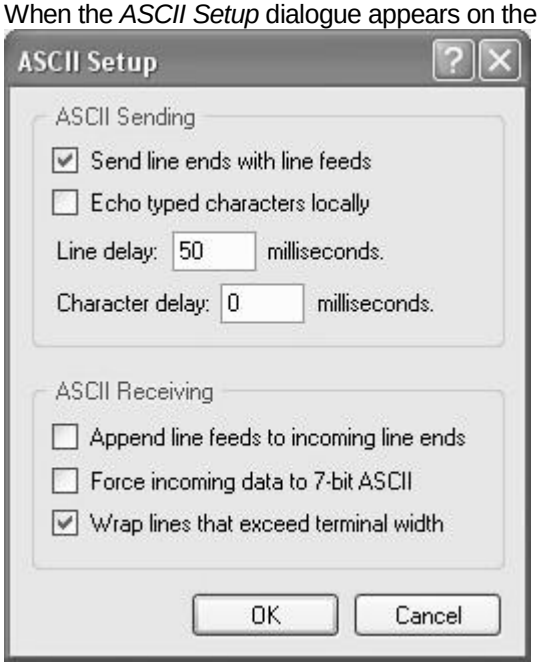
To make sure that communication between Microsoft® HyperTerminal and the alarm monitor will work properly, some settings regarding transmission of data are needed:

1. Click on the menu *Files*.
2. Click on the menu item *Properties*.

When the properties dialog appears on the screen:

3. Click on the tab *Settings*.
4. Click on the button *ASCII-settings*.

When the *ASCII Setup* dialogue appears on the screen:



Please make sure that the dialog is filled out exactly like the picture above!

5. Click on the button *OK*.

The alarm monitor is now connected to the PC through RS232. The screen dump below shows the welcome message, transmitted by the M4200 alarm monitor, which indicates that it is ready for configuration.

```
M4200 Alarm Annunciator
FW 070208
>
```

Save connection

In order to avoid the starting and configuration procedure every time you start up the Microsoft® HyperTerminal in the future, it is practical to save the setup. To save setup:

1. Click on the menu *File* (in the upper left corner of the HyperTerminal dialogue).
2. Click on the menu item *Save as...*

The *Save as…* dialogue will appear on the screen:

3. Note that the name *Direct COM1* is already typed into the input field *Filename*.
4. Click on the button *Save*.

The configuration has been saved as a HyperTerminal shortcut icon. This icon (named *Direct COM1*) can be accessed directly through the start menu (same location as HyperTerminal).

Introduction to Microsoft® HyperTerminal

Below you will find an explanation for the frequently used icons in Microsoft® HyperTerminal.

Icon explanation

Icon	Description
	Use this icon if you need to create a new connection e.g. if you need to communicate through another COM port than your default connection does
	Use this icon if you need to open a new connection e.g. the connection you have saved as *Direct COM1*
	Use this icon if you need to connect to the unit related to the pc e.g. M4200
	Use this icon if you need to disconnect to the unit related to the pc e.g. M4200
	Use this icon if you need to correct some of the properties for the active connection e.g. *Direct COM1*

Programming by PC

There are two ways of programming the alarm monitor; by dip switches on the rear of the unit or by any standard ANSI compatible terminal application e.g. Microsoft® HyperTerminal (which is supplied with the Windows® operating system) or any other ANSI terminal.

When using a standard ANSI compatible terminal application, the configuration is done through a PC, via the special RS232 cable which is delivered with the alarm monitor.

The 16 dip switches have a limited number of combinations and provide only restricted combinations for e.g. channels and delays. Otherwise the RS232 based configuration is unrestricted.

In this section, all necessary information regarding programming of the alarm monitor from a PC is available.

Read config

It is possible to read out the present configuration of the alarm monitor, by writing a single command into the terminal window.

Make sure that the RS232 port on the alarm monitor is connected to the PC serial port (COM1), and the power is turned on.

To start up the programming window (Microsoft® HyperTerminal):

1. Click on the *Start* button (in the lower left corner of the Windows® screen).
2. Click on the menu item *All programs**).
3. Click on the menu item *Accessories*.
4. Click on the menu item *Communication*.
5. Click on the menu folder *HyperTerminal*.
6. Click on the menu item *Direct COM1*.

The HyperTerminal dialogue will appear on the screen:

```
M4200 Alarm Annunciator
FW 070208
>read config
```

7. Type the text *read config* in the terminal window.
8. Press the *Enter* key on the keyboard.

All parameters are now listed in the terminal window. All parameters can be changed or activated according to the descriptions on every single parameter, which you are able to read about on the following pages.

Please type the complete command and press ENTER. The parameter is automatically saved into the unit.

*) On Windows® XP the button is named *All programs*. If the operating system is older than Windows® XP, the button is only named *Programs*.

System parameters

In the table below every possible parameter is listed followed by a detailed explanation of the use of the parameter:

Parameter	Command	Description
Channel functions	WRITE IN1 FUNC **ALR**	Channel 1 will function as normal **alarm** channel
	WRITE IN2 FUNC **ALR**	Channel 2 will function as normal **alarm** channel
	WRITE IN3 FUNC **ALR**	Channel 3 will function as normal **alarm** channel
	WRITE IN4 FUNC **ALR**	Channel 4 will function as normal **alarm** channel
	WRITE IN5 FUNC **ALR**	Channel 5 will function as normal **alarm** channel
	WRITE IN6 FUNC **ALR**	Channel 6 will function as normal **alarm** channel
	WRITE IN7 FUNC **ALR**	Channel 7 will function as normal **alarm** channel
	WRITE IN8 FUNC **ALR**	Channel 8 will function as normal **alarm** channel
	WRITE IN1 FUNC **IND**	Channel 1 will function only as **indicator** channel
	WRITE IN2 FUNC **IND**	Channel 2 will function only as **indicator** channel
	WRITE IN3 FUNC **IND**	Channel 3 will function only as **indicator** channel
	WRITE IN4 FUNC **IND**	Channel 4 will function only as **indicator** channel
	WRITE IN5 FUNC **IND**	Channel 5 will function only as **indicator** channel
	WRITE IN6 FUNC **IND**	Channel 6 will function only as **indicator** channel
	WRITE IN7 FUNC **IND**	Channel 7 will function only as **indicator** channel
	WRITE IN8 FUNC **IND**	Channel 8 will function only as **indicator** channel
Input contact type	WRITE IN1 TYPE **NO**	Channel 1 supports a **normally open** input contact
	WRITE IN2 TYPE **NO**	Channel 2 supports a **normally open** input contact
	WRITE IN3 TYPE **NO**	Channel 3 supports a **normally open** input contact
	WRITE IN4 TYPE **NO**	Channel 4 supports a **normally open** input contact
	WRITE IN5 TYPE **NO**	Channel 5 supports a **normally open** input contact
	WRITE IN6 TYPE **NO**	Channel 6 supports a **normally open** input contact
	WRITE IN7 TYPE **NO**	Channel 7 supports a **normally open** input contact
	WRITE IN8 TYPE **NO**	Channel 8 supports a **normally open** input contact
	WRITE IN1 TYPE **NC**	Channel 1 supports a **normally closed** input contact
	WRITE IN2 TYPE **NC**	Channel 2 supports a **normally closed** input contact
	WRITE IN3 TYPE **NC**	Channel 3 supports a **normally closed** input contact
	WRITE IN4 TYPE **NC**	Channel 4 supports a **normally closed** input contact
	WRITE IN5 TYPE **NC**	Channel 5 supports a **normally closed** input contact
	WRITE IN6 TYPE **NC**	Channel 6 supports a **normally closed** input contact
	WRITE IN7 TYPE **NC**	Channel 7 supports a **normally closed** input contact
	WRITE IN8 TYPE **NC**	Channel 8 supports a **normally closed** input contact
Input reference	WRITE IN1 REF **VREF**	Channel 1 is configured for **positive reference** (terminal 9)
	WRITE IN2 REF **VREF**	Channel 2 is configured for **positive reference** (terminal 9)
	WRITE IN3 REF **VREF**	Channel 3 is configured for **positive reference** (terminal 9)
	WRITE IN4 REF **VREF**	Channel 4 is configured for **positive reference** (terminal 9)
	WRITE IN5 REF **VREF**	Channel 5 is configured for **positive reference** (terminal 9)
	WRITE IN6 REF **VREF**	Channel 6 is configured for **positive reference** (terminal 9)
	WRITE IN7 REF **VREF**	Channel 7 is configured for **positive reference** (terminal 9)
	WRITE IN8 REF **VREF**	Channel 8 is configured for **positive reference** (terminal 9)
	WRITE IN1 REF **GND**	Channel 1 is configured for **negative reference** (terminal 10)
	WRITE IN2 REF **GND**	Channel 2 is configured for **negative reference** (terminal 10)
	WRITE IN3 REF **GND**	Channel 3 is configured for **negative reference** (terminal 10)
	WRITE IN4 REF **GND**	Channel 4 is configured for **negative reference** (terminal 10)
	WRITE IN5 REF **GND**	Channel 5 is configured for **negative reference** (terminal 10)
	WRITE IN6 REF **GND**	Channel 6 is configured for **negative reference** (terminal 10)
	WRITE IN7 REF **GND**	Channel 7 is configured for **negative reference** (terminal 10)
	WRITE IN8 REF **GND**	Channel 8 is configured for **negative reference** (terminal 10)

Parameter	Command	Description
Cable monitoring	WRITE IN1 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 1
	WRITE IN2 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 2
	WRITE IN3 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 3
	WRITE IN4 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 4
	WRITE IN5 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 5
	WRITE IN6 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 6
	WRITE IN7 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 7
	WRITE IN8 CABLE **OFF**	There is **no monitoring of cable faults** on Channel 8
	WRITE IN1 CABLE **ON**	Channel 1 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN2 CABLE **ON**	Channel 2 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN3 CABLE **ON**	Channel 3 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN4 CABLE **ON**	Channel 4 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN5 CABLE **ON**	Channel 5 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN6 CABLE **ON**	Channel 6 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN7 CABLE **ON**	Channel 7 gives alarm at **cable fracture or short-circuit** on input cable
	WRITE IN8 CABLE **ON**	Channel 8 gives alarm at **cable fracture or short-circuit** on input cable
Input delay **25ms** - **999ms**. are accepted values	WRITE IN1 DELAY **25MS**	Channel 1 has a delay of **25ms**. from input to respond
	WRITE IN2 DELAY **25MS**	Channel 2 has a delay of **25ms**. from input to respond
	WRITE IN3 DELAY **25MS**	Channel 3 has a delay of **25ms**. from input to respond
	WRITE IN4 DELAY **25MS**	Channel 4 has a delay of **25ms.** from input to respond
	WRITE IN5 DELAY **25MS**	Channel 5 has a delay of **25ms**. from input to respond
	WRITE IN6 DELAY **25MS**	Channel 6 has a delay of **25ms**. from input to respond
	WRITE IN7 DELAY **25MS**	Channel 7 has a delay of **25ms**. from input to respond
	WRITE IN8 DELAY **25MS**	Channel 8 has a delay of **25ms.** from input to respond
1s - **999s** are accepted values	WRITE IN1 DELAY **1S**	Channel 1 has a delay of **1sec**. from input to respond
	WRITE IN2 DELAY **1S**	Channel 2 has a delay of **1sec.** from input to respond
	WRITE IN3 DELAY **1S**	Channel 3 has a delay of **1sec**. from input to respond
	WRITE IN4 DELAY **1S**	Channel 4 has a delay of **1sec**. from input to respond
	WRITE IN5 DELAY **1S**	Channel 5 has a delay of **1sec**. from input to respond
	WRITE IN6 DELAY **1S**	Channel 6 has a delay of **1sec**. from input to respond
	WRITE IN7 DELAY **1S**	Channel 7 has a delay of **1sec**. from input to respond
	WRITE IN8 DELAY **1S**	Channel 8 has a delay of **1sec**. from input to respond
LED colour Red, green and Yellow is possible colours RED, GREEN and YELL are accepted values	WRITE LED1 COLOR **RED**	The colour of the LED of channel 1 gives a **red light**
	WRITE LED2 COLOR **RED**	The colour of the LED of channel 2 gives a **red light**
	WRITE LED3 COLOR **RED**	The colour of the LED of channel 3 gives a **red light**
	WRITE LED4 COLOR **RED**	The colour of the LED of channel 4 gives a **red light**
	WRITE LED5 COLOR **RED**	The colour of the LED of channel 5 gives a **red light**
	WRITE LED6 COLOR **RED**	The colour of the LED of channel 6 gives a **red light**
	WRITE LED7 COLOR **RED**	The colour of the LED of channel 7 gives a **red light**
	WRITE LED8 COLOR **RED**	The colour of the LED of channel 8 gives a **red light**

Parameter	Command	Description
Block function 1	WRITE ALM1 BLOCK1 **OFF**	**Blocking** alarm input 1 is not possible (by block function 1)
	WRITE ALM2 BLOCK1 **OFF**	**Blocking** alarm input 2 is not possible (by block function 1)
	WRITE ALM3 BLOCK1 **OFF**	**Blocking** alarm input 3 is not possible (by block function 1)
	WRITE ALM4 BLOCK1 **OFF**	**Blocking** alarm input 4 is not possible (by block function 1)
	WRITE ALM5 BLOCK1 **OFF**	**Blocking** alarm input 5 is not possible (by block function 1)
	WRITE ALM6 BLOCK1 **OFF**	**Blocking** alarm input 6 is not possible (by block function 1)
	WRITE ALM7 BLOCK1 **OFF**	**Blocking** alarm input 7 is not possible (by block function 1)
	WRITE ALM8 BLOCK1 **OFF**	**Blocking** alarm input 8 is not possible (by block function 1)
	WRITE ALM1 BLOCK1 **ON**	**Blocking** alarm input 1 is possible via external button (terminal 13)
	WRITE ALM2 BLOCK1 **ON**	**Blocking** alarm input 2 is possible via external button (terminal 13)
	WRITE ALM3 BLOCK1 **ON**	**Blocking** alarm input 3 is possible via external button (terminal 13)
	WRITE ALM4 BLOCK1 **ON**	**Blocking** alarm input 4 is possible via external button (terminal 13)
	WRITE ALM5 BLOCK1 **ON**	**Blocking** alarm input 5 is possible via external button (terminal 13)
	WRITE ALM6 BLOCK1 **ON**	**Blocking** alarm input 6 is possible via external button (terminal 13)
	WRITE ALM7 BLOCK1 **ON**	**Blocking** alarm input 7 is possible via external button (terminal 13)
	WRITE ALM8 BLOCK1 **ON**	**Blocking** alarm input 8 is possible via external button (terminal 13)
Block function 2	WRITE ALM1 BLOCK2 **OFF**	**Blocking** alarm input 1 is not possible (by block function 2)
	WRITE ALM2 BLOCK2 **OFF**	**Blocking** alarm input 2 is not possible (by block function 2)
	WRITE ALM3 BLOCK2 **OFF**	**Blocking** alarm input 3 is not possible (by block function 2)
	WRITE ALM4 BLOCK2 **OFF**	**Blocking** alarm input 4 is not possible (by block function 2)
	WRITE ALM5 BLOCK2 **OFF**	**Blocking** alarm input 5 is not possible (by block function 2)
	WRITE ALM6 BLOCK2 **OFF**	**Blocking** alarm input 6 is not possible (by block function 2)
	WRITE ALM7 BLOCK2 **OFF**	**Blocking** alarm input 7 is not possible (by block function 2)
	WRITE ALM8 BLOCK2 **OFF**	**Blocking** alarm input 8 is not possible (by block function 2)
	WRITE ALM1 BLOCK2 **ON**	**Blocking** alarm input 1 is possible via external button (terminal 14)
	WRITE ALM2 BLOCK2 **ON**	**Blocking** alarm input 2 is possible via external button (terminal 14)
	WRITE ALM3 BLOCK2 **ON**	**Blocking** alarm input 3 is possible via external button (terminal 14)
	WRITE ALM4 BLOCK2 **ON**	**Blocking** alarm input 4 is possible via external button (terminal 14)
	WRITE ALM5 BLOCK2 **ON**	**Blocking** alarm input 5 is possible via external button (terminal 14)
	WRITE ALM6 BLOCK2 **ON**	**Blocking** alarm input 6 is possible via external button (terminal 14)
	WRITE ALM7 BLOCK2 **ON**	**Blocking** alarm input 7 is possible via external button (terminal 14)
	WRITE ALM8 BLOCK2 **ON**	**Blocking** alarm input 8 is possible via external button (terminal 14)
Alarm 1 (output relay 1)	WRITE ALM1 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 1 is ON
	WRITE ALM2 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 2 is ON
	WRITE ALM3 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 3 is ON
	WRITE ALM4 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 4 is ON
	WRITE ALM5 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 5 is ON
	WRITE ALM6 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 6 is ON
	WRITE ALM7 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 7 is ON
	WRITE ALM8 RELAY1 **ON**	Alarm 1 (output relay 1) **is active** when alarm on input 8 is ON
	WRITE ALM1 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 1 is ON
	WRITE ALM2 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 2 is ON
	WRITE ALM3 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 3 is ON
	WRITE ALM4 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 4 is ON
	WRITE ALM5 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 5 is ON
	WRITE ALM6 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 6 is ON
	WRITE ALM7 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 7 is ON
	WRITE ALM8 RELAY1 **OFF**	Alarm 1 (output relay 1) **is NOT active** when alarm on input 8 is ON

Parameter	Command	Description
Alarm 2 (output relay 2)	WRITE ALM1 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 1 is ON
	WRITE ALM2 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 2 is ON
	WRITE ALM3 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 3 is ON
	WRITE ALM4 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 4 is ON
	WRITE ALM5 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 5 is ON
	WRITE ALM6 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 6 is ON
	WRITE ALM7 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 7 is ON
	WRITE ALM8 RELAY2 **OFF**	Alarm 2 (output relay 2) **is NOT active** when alarm on input 8 is ON
	WRITE ALM1 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 1 is ON
	WRITE ALM2 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 2 is ON
	WRITE ALM3 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 3 is ON
	WRITE ALM4 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 4 is ON
	WRITE ALM5 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 5 is ON
	WRITE ALM6 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 6 is ON
	WRITE ALM7 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 7 is ON
	WRITE ALM8 RELAY2 **ON**	Alarm 2 (output relay 2) **is active** when alarm on input 8 is ON
Siren (relay)	WRITE ALM1 SIREN **ON**	Siren **is active** when alarm on input 1 is ON
	WRITE ALM2 SIREN **ON**	Siren **is active** when alarm on input 2 is ON
	WRITE ALM3 SIREN **ON**	Siren **is active** when alarm on input 3 is ON
	WRITE ALM4 SIREN **ON**	Siren **is active** when alarm on input 4 is ON
	WRITE ALM5 SIREN **ON**	Siren **is active** when alarm on input 5 is ON
	WRITE ALM6 SIREN **ON**	Siren **is active** when alarm on input 6 is ON
	WRITE ALM7 SIREN **ON**	Siren **is active** when alarm on input 7 is ON
	WRITE ALM8 SIREN **ON**	Siren **is active** when alarm on input 8 is ON
	WRITE ALM1 SIREN **OFF**	Siren **is NOT active** when alarm on input 1 is ON
	WRITE ALM2 SIREN **OFF**	Siren **is NOT active** when alarm on input 2 is ON
	WRITE ALM3 SIREN **OFF**	Siren **is NOT active** when alarm on input 3 is ON
	WRITE ALM4 SIREN **OFF**	Siren **is NOT active** when alarm on input 4 is ON
	WRITE ALM5 SIREN **OFF**	Siren **is NOT active** when alarm on input 5 is ON
	WRITE ALM6 SIREN **OFF**	Siren **is NOT active** when alarm on input 6 is ON
	WRITE ALM7 SIREN **OFF**	Siren **is NOT active** when alarm on input 7 is ON
	WRITE ALM8 SIREN **OFF**	Siren **is NOT active** when alarm on input 8 is ON
Output 1 - 4 It is possible to replace "*OUTPUT1*" with "*OUTPUT2*", "*OUTPUT3*" or "*OUTPUT4*"	WRITE ALM1 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 1 is ON
	WRITE ALM2 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 2 is ON
	WRITE ALM3 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 3 is ON
	WRITE ALM4 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 4 is ON
	WRITE ALM5 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 5 is ON
	WRITE ALM6 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 6 is ON
	WRITE ALM7 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 7 is ON
	WRITE ALM8 *OUTPUT1* **OFF**	Open collector output 1 **is NOT active** when alarm on input 8 is ON
	WRITE ALM1 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 1 is ON
	WRITE ALM2 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 2 is ON
	WRITE ALM3 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 3 is ON
	WRITE ALM4 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 4 is ON
	WRITE ALM5 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 5 is ON
	WRITE ALM6 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 6 is ON
	WRITE ALM7 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 7 is ON
	WRITE ALM8 *OUTPUT1* **ON**	Open collector output 1 **is active** when alarm on input 8 is ON

Parameter	Command	Description
Output relay 1 (contact)*	WRITE IORELAYS RELAY1 CONTACT **ND**	Alarm 1 (output relay 1) operates as **normally de-energized**
	WRITE IORELAYS RELAY1 CONTACT **NE**	Alarm 1 (output relay 1) operates as **normally energized**
Output relay 2 (contact)*	WRITE IORELAYS RELAY2 CONTACT **ND**	Alarm 2 (output relay 2) operates as **normally de-energized**
	WRITE IORELAYS RELAY2 CONTACT **NE**	Alarm 2 (output relay 2) operates as **normally energized**
Siren relay (contact)*	WRITE IORELAYS SIREN CONTACT **ND**	Siren (siren relay) operates as **normally de-energized**
	WRITE IORELAYS SIREN CONTACT **NE**	Siren (siren relay) operates as **normally energized**
Output 1 – 4 (contact)*	WRITE IORELAYS OUTPUT1 **ND**	Open collector output 1 operates as **normally de-energized**
	WRITE IORELAYS OUTPUT1 **NE**	Open collector output 1 operates as **normally energized**
	WRITE IORELAYS OUTPUT2 **ND**	Open collector output 2 operates as **normally de-energized**
	WRITE IORELAYS OUTPUT2 **NE**	Open collector output 2 operates as **normally energized**
	WRITE IORELAYS OUTPUT3 **ND**	Open collector output 3 operates as **normally de-energized**
	WRITE IORELAYS OUTPUT3 **NE**	Open collector output 3 operates as **normally energized**
	WRITE IORELAYS OUTPUT4 **ND**	Open collector output 4 operates as **normally de-energized**
	WRITE IORELAYS OUTPUT4 **NE**	Open collector output 4 operates as **normally energized**
Output relay 1 (signal)*	WRITE IORELAYS RELAY1 SIGNAL **STEADY**	Alarm 1 (output relay 1) operates in **steady mode** (new incoming alarms is **not** registered)
	WRITE IORELAYS RELAY1 SIGNAL **PULSE**	Alarm 1 (output relay 1) operates in **pulse mode** If another alarm input is activated (meanwhile an existing alarm input is still active), output relay 1 will become silent in about 2 seconds and start again. This scenario will occur every time a new input is activated.
Output relay 2 (signal)*	WRITE IORELAYS RELAY2 SIGNAL **STEADY**	Alarm 2 (output relay 2) operates in **steady mode** (new incoming alarms is **not** registered)
	WRITE IORELAYS RELAY2 SIGNAL **PULSE**	Alarm 2 (output relay 2) operates in **pulse mode** If another alarm input is activated (meanwhile an existing alarm input is still active), output relay 2 will become silent in about 2 seconds and start again. This scenario will occur every time a new input is activated.
Siren relay (signal)*	WRITE IORELAYS SIREN SIGNAL **STEADY**	Siren (siren relay) operates in **steady mode** (new incoming alarms is **not** registered)
	WRITE IORELAYS SIREN SIGNAL **PULSE**	Siren (siren relay) operates in **pulse mode** If another alarm input is activated (meanwhile an existing alarm input is still active), the siren relay will become silent in about 2 seconds and start again. This scenario will occur every time a new input is activated **as long as the unit has not been reset.**

(contact)*
If the firmware is dated before January 2008, leave out *CONTACT* from the command line.

(signal)*
Available from firmware version; January 2008.

Parameter	Command	Description
Unblock delays **1s – 999s** are accepted values	WRITE SYS BLOCK1 UBDELAY **1S**	Block function 1 has a delay on **1sec**. from unblock to respond (unblocked)
	WRITE SYS BLOCK2 UBDELAY **1S**	Block function 2 has a delay on **1sec**. from unblock to respond (unblocked)
Reset functions	WRITE SYS RESET **PUSH 1**	**1 push** on reset button: Resets all
	WRITE SYS RESET **PUSH 2**	**2 push** on reset button: First reset siren Second reset LEDs
Factory default	WRITE SYS SETUPDEFAULT **NO**	This command is used to undo the command: *WRITE SYS SETUPDEFAULT YES* (before the power supply has been disconnected)
	WRITE SYS SETUPDEFAULT **YES**	**Cancels all settings**. The complete configuration will return to factory default (the factory default setting will take effect, when power supply has been disconnected)

NOTE
The first set of commands in each parameter group in the table above is always the factory default settings of the alarm monitor.

Save settings in a text file

It is often practical to make a backup copy of the module configuration. The copy can be used for safe keeping and documentation, or it can be sent to colleagues for evaluation and trouble shooting.
It can also be edited and changed in Notepad for later upload in the M4200.

The procedure below describes how to transfer the configuration from Microsoft® HyperTerminal:

1. Click on the menu *Transfer*.
2. Click on the menu item *Capture Text*.
3. Click on the button *Browse*.

Select a location and filename for the text file containing the configuration.

4. Click on the button *Save*.

When the *Capture Text* dialog appears on the screen:

5. Click on the button *Start*.

When the Capture Text dialog disappears from the screen:

6. Type the text *read config* in the terminal window
7. Press *Enter* on the keyboard and wait 5 seconds

The current configuration is listed in the terminal window. The configuration has simultaneously been captured in the text file.

To stop the transmission to the text file:

8. Click on the menu *Transfer*.
9. Click on the menu item *Capture Text*.
10. Click on the menu item *Stop*.

The configuration is now accessible as a readable text file. The file contains all parameters necessary to re-establish the configuration of the module.

Find and open the text file to check the content. It is necessary to scroll through the contents of the notepad window in order to view the full content of the file.

NOTE
In order to restore the configuration from the text file into the alarm monitor, please refer to the section *Load settings from a text* file on page *34*.

Load settings from a text file

By using an ANSI compatible terminal application e.g. Microsoft® HyperTerminal (which is supplied with the Windows® operating system) or any other ANSI terminal, it is possible to load single commands or the complete configuration from a text file.

Important:
There are two commands that need special attention when loading configuration from a text file:

1. READ CONFIG

2. WRITE SYS SETUPDEFAULT YES

READ CONFIG is the first command in the text file. It is recommended to delete this command from the text file before loading the configuration. If it is not deleted the loading procedure will start read out the configuration instead of loading it into the alarm monitor!

WRITE SYS SETUPDEFAULT YES is the last command I the text file. It is recommended to delete this command from the text file before loading the configuration. If it's not deleted the complete configuration will be loaded into the alarm monitor but at the end of the loading procedure the loaded configuration will be deleted and replaced by the factory default configuration.

Load configuration:
The procedure below describes how to load the configuration into the alarm monitor via Microsoft® HyperTerminal:

1. Click on the menu *Transfer*.

2. Click on the menu item *Send Text File…*

3. Click on the button *Browse*.

Select the text file containing the configuration.

4. Click on the button *Open*.

The commands in the text file will now be retransmitted to the alarm monitor. This will take several seconds or maybe even a few minutes depending on the amount of commands in the text file.