Options for *infobox basic*

Option	Available Device Types
Plug-type terminals with screw connection	• All device types
Backlight display insteat of LED (red/green backlight for message label)	• Up to 16 messages for all supply voltage types • 24 messages and more for DC 24 V supply voltages *
Relay option for message-Signal conveying (one relay contact for every message input)	• LED versions: up to 16 messages for all supply voltages • LED versions: 24 messages and more for 24 V DC supply voltage * • Backlight versions: up to 8 messages for all supply voltages • Backlight versions: 16 messages and more for 24 V DC supply voltage *
Panel mounting housing with reduced mounting depth	• With 24 V DC supply voltage • Without relay option for message signal transfer

Accessories for *infobox basic*

***: external Supply voltage modules for the conversion to 24 V DC for supply voltages greater than 24 V DC**

Supply Voltage	Type	Id. Number
DC: 110 V, 220 V AC: 127 V, 230 V	U83 230A	30-96-283
DC: 48 V, 60 V AC: 48 V	U84 60A	30-96-284

Uninterruptable power supply

Type	Id. Number
For all device types (supply via emergency supply input):	
Accu module for DIN rail mounting 12 V DC 1.2 Ah (without load function and without load status monitoring)	06-22-639
For 24 V DC devices (supply via voltage supply input):	
UPS U81 230B, AC 230 V / DC 28 V / 0.7 A / 1.2 Ah (with load function and load status monitoring)	30-96-282

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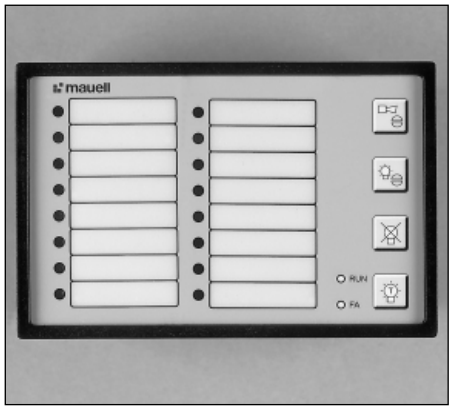


Infobox basic with 16 messages

Application

Message and event recording unit for the acquisition and processing of 8 to 40 alarm or status messages.

Features

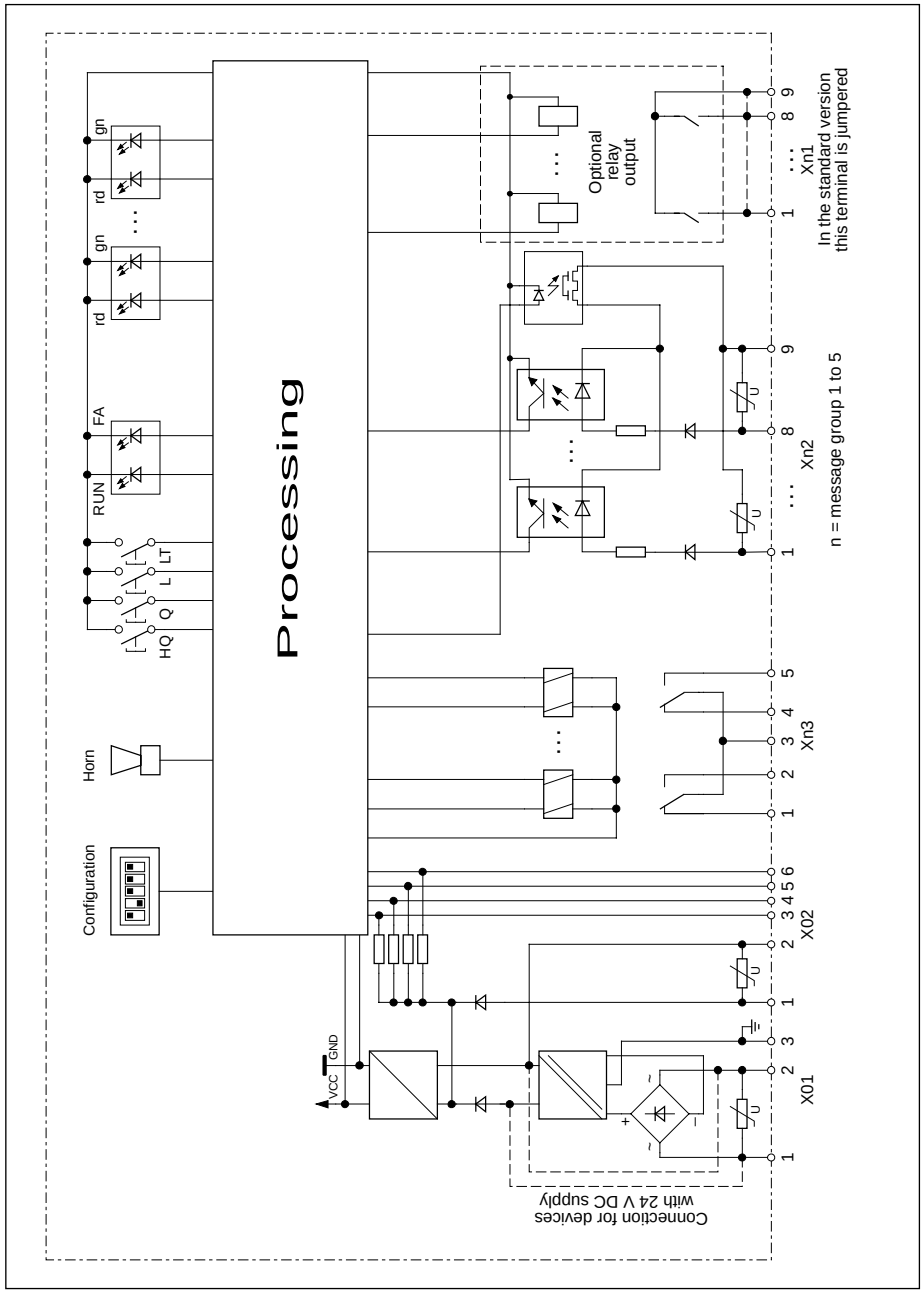
- Rugged housing intended for front panel mounting
- Compact, space-saving design
- High interference immunity factor
- Uniform front design
- Opto-decoupled signal input levels
- Optional output expansion modules
- Different types of message indication
- Various supply and signal voltage ranges
- Operating status and fault alarm indication
- Internal pushbuttons for message handling
- External pushbutton inputs for message handling
- Replacable labels for message texts
- Supports signalling functionalities acc. to DIN 19235

Please note:
This data sheet describes the device that is capable of signalling 40 messages. For devices generating 8, 16 or 24 messages, the number of signal inputs, group messages and message transmission relay contacts is reduced accordingly.

Operating and Display Elements

LED / backlight	Alarm or status messages
LED "RUN"	Ready for operation
LED "FA"	Device fault
Pushbutton	Horn acknowledgement Disconnection of the internal and external acoustic indicator
Pushbutton	Message acknowledgement
Pushbutton	Delete messages
Pushbutton	LED test Visual function test of all indicating lights (emitting the specified colour).

Contents **Page**



Block diagram

Overview of Device Types *infobox basic*

Basic device types

Property	Remarks
Number of message inputs	8, 16, 24 or 40 opto-decoupled inputs in different device types
Type of message display	LED red/green for alarm display or status display
Message signal voltage	24 V AC/DC to 220 V DC/230 V AC in different device types (see Technical Characteristics)
Supply voltage input	Supply voltage 24 V AC/DC to 220 V DC/230 V AC in different device types (see Technical Characteristics)
Supply input for emergency suppy	Emergency suppy voltage DC 9 V to 29 V
Internal operating pushbuttons	Horn acknowledge, Message acknowledge, Display reset, Lamp test
External Pushbuttons inputs	Horn acknowledge, Message acknowledge, Display reset, Lamp test
Group message output	One floating relay contact (change-over contacts) for every message group of 8
Internal acoustic signal generator	
Relay output for external acoustic signal generator	Floating relay (change-over) contact with common root to the group message relay contact of the 1st message group
Replaceable labelling	Insertable labelling strips
Type of connection terminals	Screw-type terminals
Panel mounting housing acc. to DIN 43718	Mounting depth 95 mm

Technical Characteristics

Nominal supply voltage

	AC 24 V	DC 24 V	DC 48 V to 60 V	UC 110 V to 230 V
Permissible tolerance band	20,4V .. 26,4 V	19 V .. 29 V	38 V .. 72 V	88 V .. 264 V DC
AC 50 / 60 Hz				97 V .. 253 V AC
DC 24 V: basic insulation required				

Devices with	8 messages	16 messages	24 messages	40 messages
Max. power consumption				
DC 24 V LED/backlight	1.2 W/2.5 W	1.9 W/4.5 W	2.6 W/6.5 W	4.0 W/8.5 W
Other voltages	1.2 W / -	1.9 W / -	2.6 W / -	4.0 W / -
Additional power consumption at optional relay output	1.5 W	3 W	4.5 W	7.5 W

Message input voltage

AC 24 V	DC 24 V	DC 48 V to 60 V	DC 110 V	AC 127 V	DC 220 V	AC 230 V
1-signal						
14 V..27 V	+15 V..+30 V	+34 V..+75 V	+86 V..+138 V	79 V..140 V	+174 V..+275 V	164 V..253 V
0-signal						
0 V..5 V	-3 V..+5 V	-6 V..+10 V	-6 V..+22 V	0 V..20 V	-6 V..+44 V	0 V..40 V
Nominal input current						
6 mA	6 mA	2.5 mA	1.5 mA	1.5 mA	1 mA	1 mA

The alarm signal is connected to the message input when the scan cycle is started. The specified nominal current values apply for the duration of the scanning period. If AC voltage is supplied, only inphase triggering is permitted within the message groups. The standard working ranges are in compliance with EN 61131-2.

Dimensions

8 messages	16 messages	24 messages	40 messages
Housing (WxH) Depth 75 mm or 95 mm			
96 x 96 mm²	144 x 96 mm²	192 x 96 mm²	288 x 96 mm²
Panel cutout (DIN 43700)			
92+0.8 x 92+0.8 mm²	138+1.0 x 92+0.8 mm²	186+1.1 x 92+0.8 mm²	282+1.1 x 92+0.8 mm²

Emergency power supply

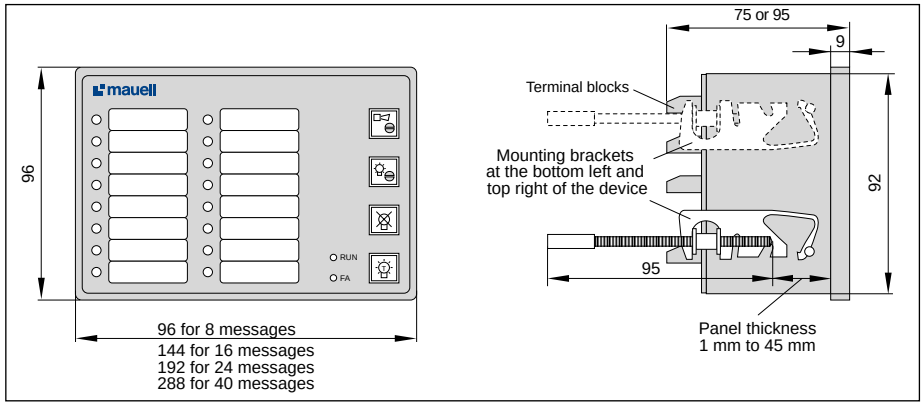
Supply voltage for emergency supply: DC 9 V to 29 V (basic insulation voltages acc. to DIN/VDE 0160 permitted)

Activated if the supply voltage is lower than the emergency supply voltage (must be taken into account when connecting the storage batteries)

Stored energy time at fully loaded batteries (h): 20 x capacity (Ah) / power consumption of the device (W)

Terminal assignment

Plug-in connector	Pin	Designation	Meaning
X01	1	UV(+)	Supply voltage (positive terminal at DC)
	2	UV(-)	Supply voltage (negative terminal at DC)
	3	EARTH	Supply voltage Earth connection
X02	1	UH+	Auxiliary supply voltage, positive terminal
	2	UH-	Auxiliary supply voltage, negative terminal and root external pushbuttons
	3	HQ	External pushbutton input Horn acknowledgement
	4	Q	External pushbutton input Message acknowledgement
	5	LÖ	External pushbutton input Delete messages
	6	LT	External pushbutton input Indicator test
X11	1 to 9	ME (+) Group 1	Message inputs Contact supply (positive terminal at DC)
X11 (at optional relay output)	1 to 8	RA 1 Group 1	Message transmission relay contact 1
	8	RA 8 Group 1	Message transmission relay contact 8
	9	RA W Group 1	Message transmission relay Root contact
X12	1 to 8	ME 1 Group 1	Message input 1 (positive terminal at DC)
	8	ME 8 Group 1	Message input 8 (positive terminal at DC)
	9	ME (-) Group 1	Message inputs Group root (negative terminal at DC)
X13	1	GM-Ö Group 1	NC contact Group message
	2	GM-S Group 1	NO contact Group message
	3	W	Relay root contact
	4	HU-Ö	NC contact External horn
	5	HU-S	NO contact External horn
X21	1 to 9	ME(+)	Group 2 Message inputs Contact supply
X21 (opt.)	1 to 9	RA 9 to RA16	Group 2 Message transmission relay contacts
X22	1 to 9	ME 9 to ME 16	Group 2 Message inputs
X23	1	GM-Ö Group 2	NC contact Group message
	2	GM-S Group 2	NO contact Group message
	3	W	Relay root contact
X31	1 to 9	ME(+)	Group 3 Message inputs Contact supply
X31 (opt.)	1 to 9	RA 17 to RA 24	Group 3 Message transmission relay contacts
X32	1 to 9	ME 17 to ME 24	Group 3 Message inputs
X33	1 to 3	GM	Group 3 Group message
X41	1 to 9	ME(+)	Group 4 Message inputs Contact supply
X41 (opt.)	1 to 9	RA 25 to RA 32	Group 4 Message transmission relay contacts
X42	1 to 9	ME 25 to ME 32	Group 4 Message inputs
X43	1 to 3	GM	Group 4 Group message
X51	1 to 9	ME(+)	Group 5 Message inputs Contact supply
X51 (opt.)	1 to 9	RA 33 to RA 40	Group 5 Message transmission relay contacts
X52	1 to 9	ME 33 to ME 40	Group 5 Message inputs
X53	1 to 3	GM	Group 5 Group message



Dimension drawing and mounting dimensions

Installation and Commissioning

- The membrane keyboard on the faceplate contains replacable message labels. To extract a label, remove the detachable bezel of the device:
  - Withdraw the bezel by pulling at the corners of the device housing
  - Slide the labels to be replaced upward and remove them from their pockets
  - Write the message text on the label, replace the label in its pocket and put the bezel back onto the housing.
- Installing the device in the panel cutout.
  Use the 2 enclosed clevis type connectors to mount the device. Tighten the connectors until the device is securely fixed.
- Wiring according to the connection diagram.
  Careful: The device should only be connected by qualified personnel and under strict compliance with the relevant safety regulations.

Electrical Connections

Type of connection:

Fixed screw-type terminals: • Terminal blocks, 3 to 9 pins / 5.08 grid for message I/O
• Plug connector, 2 to 6 pins / 5.08 grid for power supply/pushbutton inputs

Plug-in screw-type terminals: • Plug connector, 2 to 9 pins / 5.08 grid

Connectable cross-sectional areas:

Single-conductor cable

Type of connection	rigid (mm²)	flexible (mm²)	AWG	flexible with end splice (mm²) without plastic splice	flexible with end splice (mm²) with plastic splice
Terminal block	0.14 to 1.5	0.14 to 1.5	26 to 16	0.25 to 1.5	0.25 to 1.5
Plug connector	0.2 to 2.5	0.2 to 2.5	24 to 12	0.25 to 2.5	0.25 to 2.5

Twin core cable

Type of-connection	rigid (mm²)	flexible (mm²)	flexible (mm²) with end splice without plastic splice	flexible (mm²) with TWIN end splice with plastic splice
Terminal block	0.14 bis 0.75	0.14 to 0.75	0.25 to 0.5	0.5
Plug connector	0.2 bis 1.0	0.2 to 1.5	0.25 to 1.0	0.5 to 1.5

Technical Characteristics

Signal resolution (shortest detectable signal)
5 ms (DC)
40 ms (AC)

Input signal change DC
10 signal changes / sec max.

Input signal frequency AC
50 / 60 Hz

Signal indication frequency
slow flashing 0.5 Hz ± 30 %
fast flashing 2.0 Hz ± 30 %

Relay outputs
- One group message per message input group
- External horn

Optional message relaying
Static relay output with fixed assignment between message input and relaying contact

Parameter settings and functions
- Type of signalling: alarm or status message
- Type of contact: N/C or working current generation for message input groups
- First-up or new value indication
- Single or double flashing light
- Horn output: static or pulse operation

Ambient temperature range
- 20 °C to + 55 °C

Mechanical Characteristics

Housing: Standard plastic housing for panel-mounting

Overall mounting depth
95 mm approx.

Mounting: Standard mounting brackets acc. to DIN 43835 Type B

Control panel thickness
1 mm to 45 mm

Type of protection
Face plate IP 40
(optional IP 54 for devices with 8, 16 or 24 messages)
Rear plate IP 20 (safe from finger-touch)

Relay switching capacity

Group message, external horn
Current via group root 6 A max.

Ohmic load / inductive load (L/R <7 ms)

AC	2000 VA / 2000 VA
at DC 110 V, 220 V	50 W / 25 W
at DC 60 V	60 W / 30 W
at DC 48 V	70 W / 35 W
at DC 24 V	100 W / 50 W

Relay expansion
Max. current via group root 4 A
Ohmic load / inductive load (L/R <7 ms)

AC	1500 VA / 1500 VA
at DC 110 V, 220 V	20 W / 10 W
at DC 60 V, 48 V	20 W / 10 W
at DC 24 V	80 W / 40 W

Safety parameters
Insulation
Overvoltage category III
DIN VDE 0110 (1.89) Degree of soiling 2

Surge strength 5 kV
acc. to DIN VDE 0435 Part 303
Test voltage class III

CE The product described in this brochure is intended for industrial use and meets the requirements laid down by the EU directive 89/336/EU.

Single flashing light acc. to DIN 19235

Upon acknowledgement of the messages the indicator light goes out (the non-triggering operating state is entered).

Signalling sequence at first-up indication with single flashing light

Messages	Pushb. operation	1st indicator	Add. indicators	Horns	Group mess.
None	Not required	Off	Off	Off	Off
1st mess. arriving	Not required	Fast flashing	Off	On	On
2nd mess. arriving	Not required	Fast flashing	Steady light	On	On
Pending	Horn ackn.	Fast flashing	Steady light	Off	On
Pending	Message ackn.	Steady light	Steady light	Off	On
Gone	Message ackn.	Off	Off	Off	Off
Going	Not required	Off	Off	Off	Off

Signalling sequence at new value indication with single flashing light

Messages	Pushb. operation	1st indicator	Add. indicators	Horns	Group mess.
None	Not required	Off	Off	Off	Off
1st mess. arriving	Not required	Fast flashing	Off	On	On
2nd mess. arriving	Not required	Fast flashing	Fast flashing	On	On
Pending	Horn ackn.	Fast flashing	Fast flashing	Off	On
Pending	Message ackn.	Steady light	Steady light	Off	On
Gone	Message ackn.	Off	Off	Off	Off
Going	Not required	Off	Off	Off	Off

Double flashing light acc. to DIN 19235

Message indication by double flashing light (fast flashing). Upon message acknowledgement the indicator light returns to low-frequency flashing (the non-triggering operating state is entered). The indicator stops flashing when the ”Delete” button is pressed.

Signalling sequence at first-up indication with double flashing light

Messages	Pushb. operation	1st indicator	Add. indicators	Horns	Group mess.
None	Not required	Off	Off	Off	Off
1st mess. arriving	Not required	Fast flashing	Off	On	On
2nd mess. arriving	Not required	Fast flashing	Steady light	On	On
Pending	Horn ackn.	Fast flashing	Steady light	Off	On
Pending	Message ackn.	Steady light	Steady light	Off	On
Gone	Message ackn.	Slow flashing	Slow flashing	Off	Off
Going	Not required	Slow flashing	Slow flashing	Off	Off
Gone	Delete	Off	Off	Off	Off

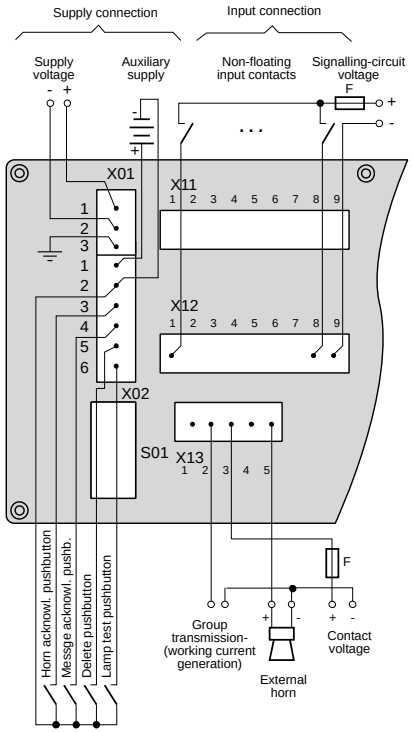
Signalling sequence at new value indication with double flashing light

Messages	Pushb. operation	1st indicator	Add. indicators	Horns	Group mess.
None	Not required	Off	Off	Off	Off
1st mess. arriving	Not required	Fast flashing	Off	On	On
2nd mess. arriving	Not required	Fast flashing	Fast flashing	On	On
Pending	Horn ackn.	Fast flashing	Fast flashing	Off	On
Pending	Message ackn.	Steady light	Steady light	Off	On
Gone	Message ackn.	Slow flashing	Slow flashing	Off	Off
Going	Not required	Slow flashing	Slow flashing	Off	Off
Gone	Delete	Off	Off	Off	Off

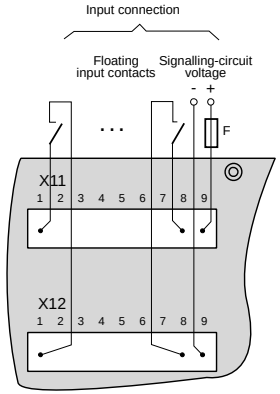
Connections

1. Devices without relay output connection:

- Variant 1: Non-floating input contacts



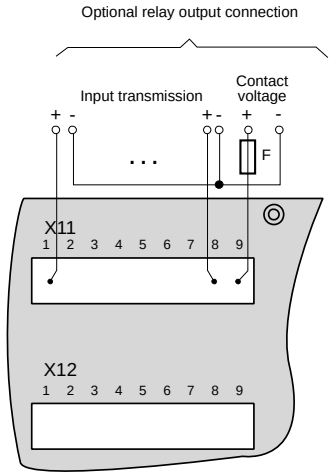
- Variant 2: Floating input contacts

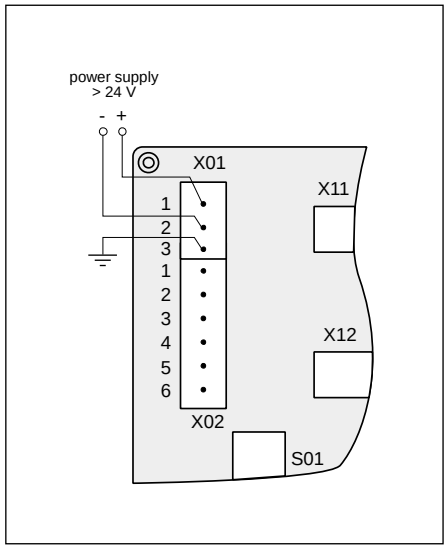


2. Devices with relay output connection:

• Input connection: see variant 1 for devices without relay output connection (page 5)

• relay output:





Position of plug connectors X01 and X02 if power supply > 24 V

Configuration

The device functions are set by means of the 8 switches at the rear of the device.
The functions of the switches 1 to 4 are always set for the entire device.

Switch 1:

ON: First-up indication for alarm messages
Visual and acoustic indication of the message arriving first. All subsequent messages are indicated by a steady light. Upon acknowledgement of all messages the function starts again.
OFF: New value indication for alarm messages
Acoustic (internal and external horn) and visual indication (fast flashing signalling LED / back light) of all messages.

Switch 2:

ON: Message indication by double flashing light (fast flashing)
(Signalling sequence: see page 8).
Upon message acknowledgement the LED / back light returns to low-frequency flashing (or is set to a steady light if the message is still pending). The visual indicator stops flashing/goes out when the ”Delete” button is pressed.
OFF: Message indication by single flashing light
(Signalling sequence: see page 8).

Switch 3:

ON: Status message indication by green LED
Only messages with status information are indicated. No acoustic signal is triggered, hence no horn acknowledgement, message acknowledgement or message deletion is required.
OFF: Alarm message indication by red LED
The messages are indicated as set with switches 1 and 2.

Switch 4:

ON: Pulse function for horn output
Automatic horn acknowledgement after approximately four seconds if the acoustic signal is not manually acknowledged with the horn acknowledgement pushbutton.
OFF: Static horn output
Acoustic (internal and external horn) indication of the arriving message. The signal must be acknowledged manually by pressing the horn acknowledgement pushbutton.

Switches 5 to 8:

ON: N/C current signal generation for message input groups
The signal is generated when the contact is open (signalling-circuit voltage is not present).
OFF: Working current signal generation for message input groups
The signal is generated when the contact is closed (signalling-circuit voltage is present).