



**SSM 8 A**



**SSM 16 A**

## Panel mounted standard fault annunciator

Function-programmable using jumpers

**SSM 8 A** - 8 alarms

**SSM 16 A** - 16 alarms

## Performance characteristics:

- Signal voltage approx. 24V ...250V AC/DC
- Standard LED colour red, other colours optional
- 1 frequency flashing display
- Electrical insulation of all circuits using optocoupler
- Pluggable connection terminals
- Compact module in 96 x 96mm housing
- Marker strip connectable to transparent window

## System description

In control and monitoring units there is often the requirement for a simple, but as universally applicable as possible fault annunciator unit. Wiring should be kept to the minimum possible, and there is no space for additional control elements.

The **SSM 8 A** and **SSM 16 A** modules, in a panel-mounted housing 96x96 mm is a complete fault annunciator unit with integrated 5mm LEDs, buttons for lamp test, acknowledgement of the horn and the lamp.

The signal voltage can reach up to 250V AC/DC. It is separated electrically from the power supply and can be taken from any phase. The collective report 1 is implemented as a potential-free change-over contact and the horn contact as a NO contact. Collective report 2 existing only with the SSM 16 A is also implemented as a potential-free NO contact.

The acknowledgement of lamp and horn can be carried out by internal or external buttons. The wiring is carried out by means of pluggable cable connectors. The marking of the LED display is done with push-in marker strips.

The following selection of function can be made by programming jumpers at the rear side:

- 1) Make or break input principle in groups of 8 channels
- 2) No first up and first up message
- 3) Horn retriggerable or not retriggerable with the following alarms
- 4) Collective indication inverted or not inverted (separately adjustable for both)

## Functional description

The input voltages are conducted by AC-optocouplers and resistance dividers to an electronic switching stage each. This ensures that parasitic voltages below the response threshold (hum voltage) does not result in actuation of the horn and LEDs. The LEDs are controlled directly from the switching stage and supplied by the power supply so that a constant brightness is maintained even with high variations of the input voltage.

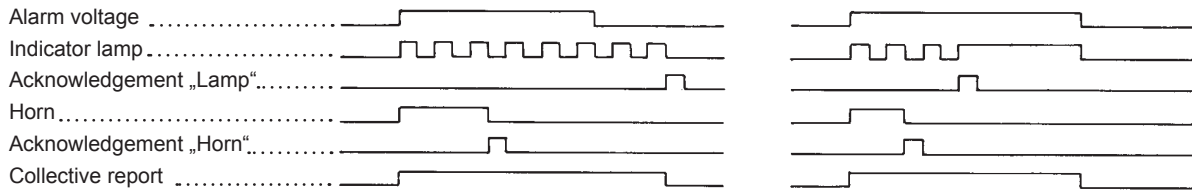
## Alarm sequence

When a message is present for longer than 100ms the corresponding LED flashes with 1 frequency flasher. Horn and collective report are activated and message saved. All incoming messages appear with a flashing light. Faults eliminated, but not yet acknowledged are displayed by opposite phase flashing.

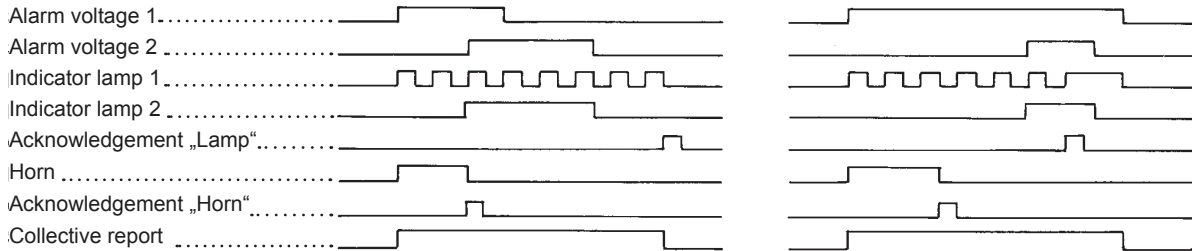
If the acknowledgement button for horn and LEDs are actuated, the horn signal goes out and the flashing display changes to constant illumination for as long as the fault exists, otherwise the LED goes out. The collective report is not extinguished until all individual alarms have been acknowledged and eliminated.

## Function sequence

### 1 frequency fault annunciating at „no first-up“:



### 1 frequency fault annunciating at „first-up message“:



### Options available:

- **BSV 1** Labelling pattern (10 in a pack)
- **BSV-Soft** Disk with labelling pattern templates for WIN WORD from version 6.0 onwards
- **KST 1** Windows door (IP 42)
- **KSH 1** Protection cover (IP 65)
- **tropical-proof version**

6 types of unit are available in the voltage levels 24V ,60V, 110V, 125V, 220V and 230V as standard. The respective signal voltage can basically be AC or DC and vary in wide limits. Other voltages can also be supplied on demand.

## Technical data

Type	SSM 16 A / 24V AC/DC SSM 8 A / 24V AC/DC	SSM 16 A / 60V DC SSM 8 A / 60V DC	SSM 16 A / 110V DC SSM 8 A / 110V DC
Supply voltage	24V AC/DC ± 20%	60V DC ± 20%	110V DC ± 20%
Power consumption	approx. 6 W	approx. 8 W	approx. 10 W
Signal voltage	24 ... 60V AC/DC +10/-15%	48 ... 72V AC/DC +10/-15%	85...125V AC/DC +10/-15%
Response threshold	approx. 16V, max. 70V	approx. 38V, max. 85V	approx. 70V, max. 140V
Max. input current	approx. 4mA	approx. 2.5mA	approx. 2.5mA

Type	SSM 16 A / 125V DC SSM 8 A / 125V DC	SSM 16 A / 220V DC SSM 8 A / 220V DC	SSM 16 A / 230V AC SSM 8 A / 230V AC
Supply voltage	125V DC $\pm$ 20%	220V DC $\pm$ 20%	230V AC +10/-15%
Power consumption	approx. 5W	approx. 5W	approx. 5W
Signal voltage	100 ... 150V AC/DC +10/-15%	185 ... 250V AC/DC +10/-15%	185...230V AC/DC +10/-15%
Response threshold	approx. 85V, max. 165V	approx. 160V, max. 250V	approx. 160V, max. 250V
Max. input current	approx. 2.5mA	approx. 2.5mA	approx. 1.5mA

Switch on delay	approx. 100ms
Surge input voltage	2.5kV according to IEC-Pub. 60 1.2 $\mu$ s / 50 $\mu$ s
Load capacity of relay contact	24 ... 250V AC 2A; 110V DC 0.5A; 220V DC 0.3A
Flash frequency	approx. 1Hz

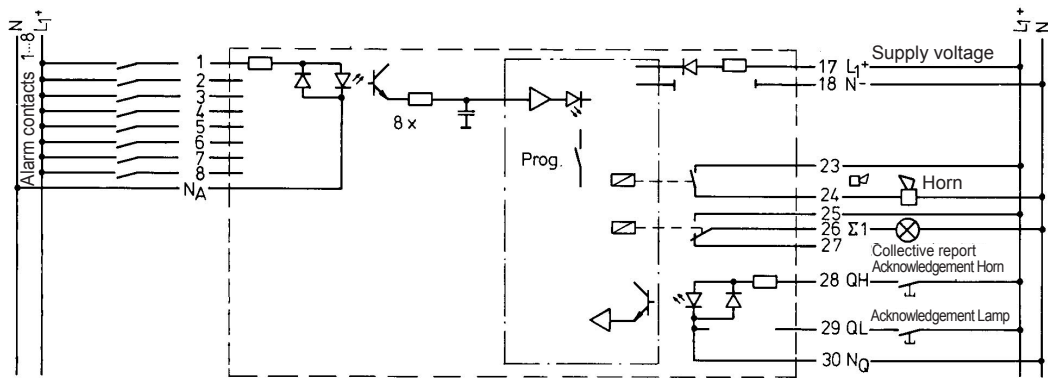
#### Mechanical data

Panel frame	96 x 96mm; maximum mounting depth 125mm
Mounting hole	91 x 91 +0.5mm
Mounting position	arbitrary
Weight	approx. 0.5 kg

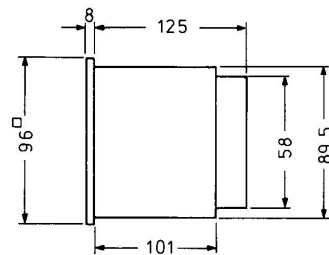
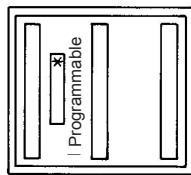
#### Ambient environment

Operating and ambient temperature	-20°C ... +60°C without condensation
Storage temperature	-20°C.... +70°C without condensation
Duty cycle	100%
Type of protection front side	IP 40; IP 42 with window door, IP 65 with protection cover
Type of protection rear side	IP 20
Connection terminals	nominal cross section 0.2 ... 2.5 mm <sup>2</sup>
Relative humidity	max. 75% mean (Group F DIN 40040)
Noise immunity	EMC tested according to EN 61000-4-2,4,5

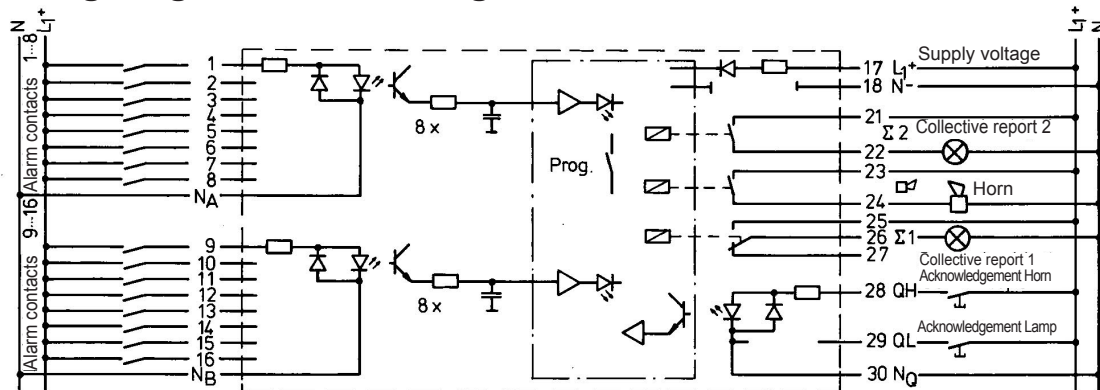
## Wiring diagram and housing SSM8A



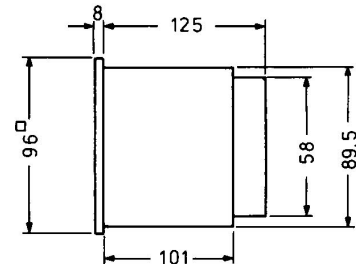
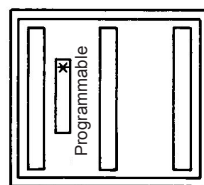
*	A	1...8	Make
	R		Break
	EW		First up message
	NW		No first-up
	HW		Horn retriggerable
	HNW		Horn not retriggerable
	MΣ1		Collective report 1 inverted
	M1		Collective report 1 not inverted



## Wiring diagram and housing SSM16A



Funktion			
*	A	1...8	Make
	R		Break
	A	9...16	Make
	R		Break
	EW		First up message
	NW		No first-up
	HW		Horn retriggerable
	HNW		Horn not retriggerable
	MΣ1		Collective report 1 inverted
	M1		Collective report 1 not inverted
	MΣ2		Collective report 2 inverted
	M2		Collective report 2 not inverted



The right to make technical changes is reserved

Dimensions in mm

Further accessories and more detailed information may be found in the appropriate product sections in the catalogue.



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