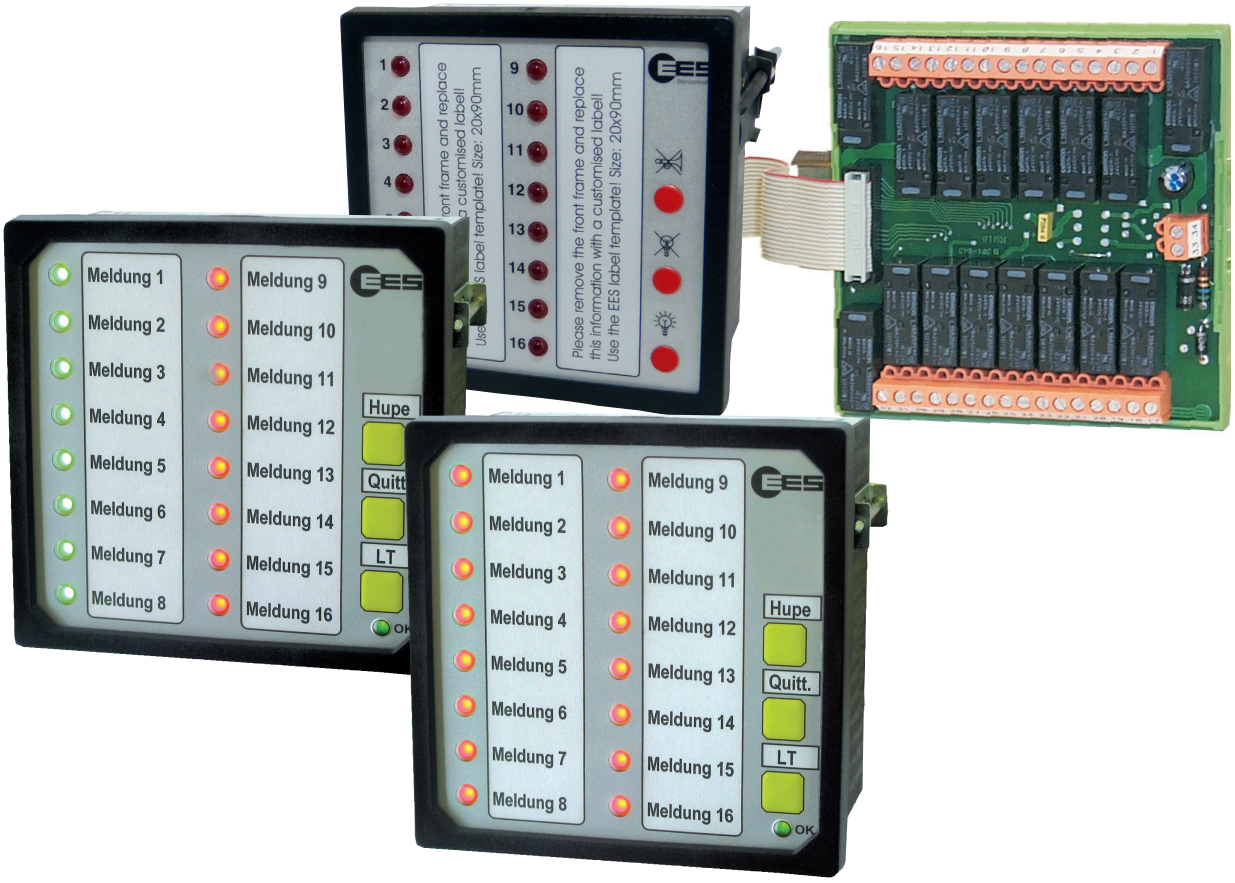
Switchboard panel mounting
Standard fault annunciator



SSM-Series - Standard fault annunciator and combined operation / fault annunciator

- Supply and signal voltages 24 V ... 250 V AC/DC
- Standard LED-colour for fault alarms red and operation indication green
- Optional 1:1 Relays Module
- New value messaging with 1-frequency flashlight, collective report and single acknowledgement
- Normally open principle of the inputs
- Potential isolation of all electrical circuits by optocouplers
- Labelled and pluggable terminals
- Compact device in 96 x 96 mm housing for panel mounting
- Transparent windows for customised labelling with slide-in strips

Datasheet

Functional description

In control and monitoring systems, there is a frequent demand on a simple fault indicator to be used as universally as possible. The wiring efforts should be limited to a minimum; there is no space for additional controlling elements left.

The devices from the SSM-family, are simple, very compact fault annunciator units for switchboard panel mounting. The devices are available as fault annunciator with 8 or respectively 16 inputs, or as combined operation / fault annunciator (LSM-8/8-C1) with 8 alarm inputs- and 8 operation indication inputs. Operation indication inputs are only realised by status indicaton with steady light and are not stored either included in triggering collective report or horn.

The fault annunciators provide LED displays with wide reading angle, buttons for lamp test, horn acknowledgement and lamp acknowledgement, as well as one or two collective report relays and a horn relay. For LSM/SSM-C types both the collective report contacts, as well as the horn relay are designed as change-over contacts. For SSM-A and SSM-R, the horn relay is a normally open contact. For all annunciators of the seies SSM switches for external acknowledgement of lamps and horn can be connected to the both functional inputs. The signal voltage can reach up to 250 V AC/DC depending on the respective variant. All inputs are electrically isolated and can be driven phase arbitrary. The wiring is done by pluggable terminals. The description of the LED's can be done by slide-in labelling strips.

By connecting the external relay module RM 16, each alarm can be lead to e.g. a front-end computer. This module is connected to the basic device SSM 16-R by a flat ribbon cable and can be mounted on DIN rail. Each relay contact is wired to a terminal and factory set with a normally open function.

Standard-Devices

	LSM-C	SSM-A				SSM-C	SSM-R
Type and numbers of inputs	8 Operation indication + 8 Alarm inputs	Alarm inputs 8 / 16				Alarm inputs 8 / 16	Alarm inputs 8 / 16
Features	Response time 100 ms	Response time 100 ms				Response time 100 ms	Response time 100 ms Channel 8 Trip Alarm 10ms
Colour of LED	green / red	red				red	red
Collective Report	1 (static / parallel to output) Channel 9-16 ∑1	1 / 2 (static / parallel to output) Channel 1-8 ∑1 / Channel 9-16∑2 *)				1 (static / parallel to output) Channel 1-16 ∑1	2 (static / parallel to output) Channel 1-8 ∑1 / Channel 9-16 ∑2
Horn	retriggerable, manual acknowledgement						
Functional input 1 and 2	Horn Acknowledgement Lamp Acknowledgement						
Button 1	Horn Acknowledgement						
Button 2	Lamp Acknowledgement						
Button 3	Lamp Test						
Relay 1	Collective Report	Collective Report ∑1				Collective Report	Collective Report ∑1
Relay 2	Horn	Collective Report ∑2 *)				Horn	Collective Report ∑2
Relay 3	-	Horn				-	Horn
Connection of 1:1 Relay Module	-	-				-	yes, RM16
Parameterisable by DIP switches	-	Function	DIP-switch	OFF	ON	-	-
		Inputs 1-8	10	Normally open	Normally closed		
		Inputs 9-16 *)	9	Normally open	Normally closed		
		Alarm sequence	8	No-first-up	First-up		
		Horn triggering	7	retriggerable	not retriggerable		
		Collective Report ∑1	6	not inverted	inverted		
		Collective Report ∑2 *)	5	not inverted	inverted		
		DIP-switches 1-4 have no function					

*) only for SSM16-A

Technical Data

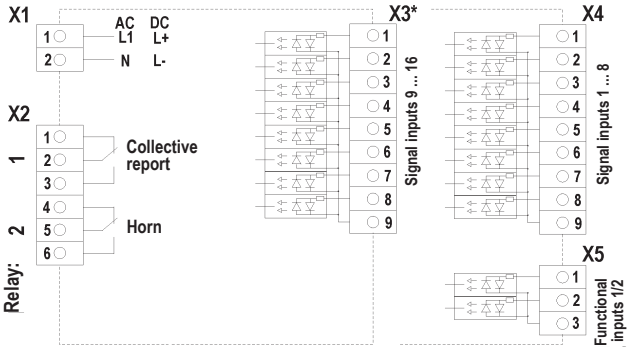
Mechanical data	
Assembly	Switchboard panel mounting (hole 91 x 91 (+/- 0,5 mm)
Housing	MBS (fire-glass reinforced Noryl)
Protection class front	IP 54 (LSM-C, SSM-C), IP 40 (SSM-A, SSM-R)
Protection class rear	IP 20
Terminals	pluggable, labelled
Conductor cross section rigid or flexible	
without wire sleeves	0,2 ... 2,5 mm^2
with wire sleeves	0,25 ... 2,5 mm^2
Dimensions incl. terminals (W x H x D)	96 mm x 96 mm x 86 mm
Weight	approx. 0,30 kg
Ambient conditions	
Operation ambient temperature	-20°C .... +60°C
Storage temperature	-20°C .... +70°C
Humidity	75% r.H. max. on average over the year; up to 93% r.H. during 56 days; condensation during operation not permitted [Test: 40°C, 93% r.H. >4days]
Electrical data	
Power consumption	max 2,0 W
maximum switch-on current	< 10 A @ 24 V DC for < 1 ms
	< 15 A @ 110 V DC for < 1 ms
Load on relay contacts	24 ... 250 V AC / 2 A, 110 V DC / 0,5 A, 220 V DC / 0,3 A
Power-frequency electric strength	
all circuits except relay contacts against each other	4 kV_{eff} / 50 Hz 1 min
Power-frequency electric strength	
relay contacts against each other	500 V_{eff} / 50 Hz 1 min
Electromagnetic compatibility	
Noise immunity acc. to	EN 61000-6-2, EN 610004-2,3,4,5,6,8,11,29
Noise irradiation acc. to	EN 61000-6-4, EN 55011, EN 60950-1

The information given for alternating voltages are refering to an sinusoidal alternating voltage with a frequency of 50/60 Hz, otherwise noted.

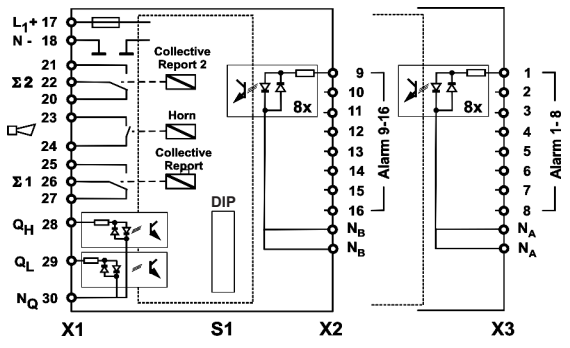
Operation voltage U_{Sup}		Signal voltage U_{Sig}		Input resistance
Nominal voltage	Voltage range	Nominal voltage	Voltage range	
24 V AC/DC	10 … 36 V DC 8 … 26 V AC	24 V AC/DC	16 … 50 V AC/DC	10 kΩ
-	-	48 … 60 V AC/DC	28 … 75 V AC/DC	22 kΩ
-	-	110 V AC/DC	55 … 130 V AC/DC	100 kΩ
-	-	125 V AC/DC	80 … 170 V AC/DC	100 kΩ
48 … 220 V AC/DC	36 … 370 V DC 26 … 264 V AC	220 V AC/DC	170 … 260 V AC/DC	180 kΩ

Terminal assignment

LSM-C / SSM-C

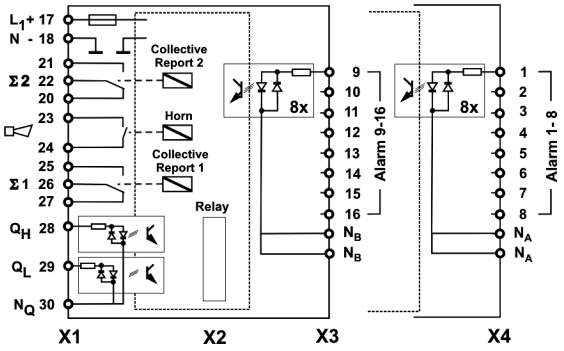


SSM-A

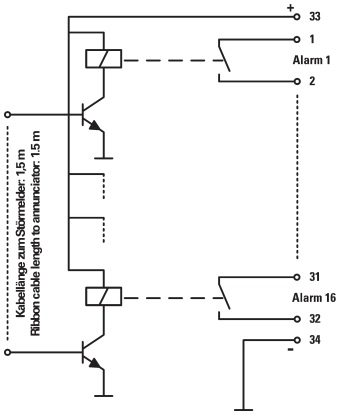


Terminal assignment

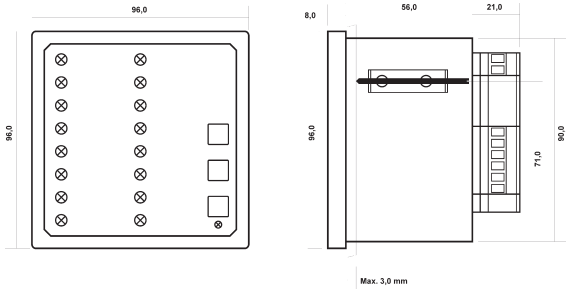
SSM-16R



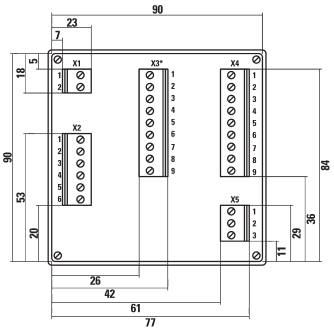
RM16



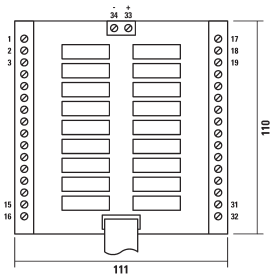
Dimensional drawing



View exemplary for SSM-C
Terminal assignment on rear device-specific



* At the SSM08C1 and SSM08A the terminal X3 is missing



Relays module RM16

Dimensions in mm

Ordering code

Article-No.	Type	Short description and Voltage ranges *2,3
55SSM08C111	SSM08C1-24	8 RI; U_{Sup} = 24 V; U_{Sig} = 24 V
55SSM08C153	SSM08C1-60	8 RI; U_{Sup} = 48-220 V; U_{Sig} = 48-60 V
55SSM08C154	SSM08C1-110	8 RI; U_{Sup} = 48-220 V; U_{Sig} = 110 V
55SSM08C15H	SSM08C1-125	8 RI; U_{Sup} = 48-220 V; U_{Sig} = 125 V
55SSM08C155	SSM08C1-220	8 RI; U_{Sup} = 48-220 V; U_{Sig} = 220 V
55SSM16C111	SSM16C1-24	16 RI; U_{Sup} = 24 V; U_{Sig} = 24 V
55SSM16C153	SSM16C1-60	16 RI; U_{Sup} = 48-220 V; U_{Sig} = 48-60 V
55SSM16C154	SSM16C1-110	16 RI; U_{Sup} = 48-220 V; U_{Sig} = 110 V
55SSM16C15H	SSM16C1-125	16 RI; U_{Sup} = 48-220 V; U_{Sig} = 125 V
55SSM16C155	SSM16C1-220	16 RI; U_{Sup} = 48-220 V; U_{Sig} = 220 V
55LSM88C111	LSM8/8C1-24	8 RI and 8 OI; U_{Sup} = 24 V; U_{Sig} = 24 V
55LSM88C153	LSM8/8C1-60	8 RI and 8 OI; U_{Sup} = 48-220 V; U_{Sig} = 48-60 V
55LSM88C154	LSM8/8C1-110	8 RI and 8 OI; U_{Sup} = 48-220 V; U_{Sig} = 110 V
55LSM88C15H	LSM8/8C1-125	8 RI and 8 OI; U_{Sup} = 48-220 V; U_{Sig} = 125 V
55LSM88C155	LSM8/8C1-220	8 RI and 8 OI; U_{Sup} = 48-220 V; U_{Sig} = 220 V

Article-No.	Type	Short description and Voltage ranges
59SSM08A0F5	SSM08A	8 RI; U_{Sup} = 110V DC; U_{Sig} = 110V DC
59SSM08A0J7	SSM08A	8 RI; U_{Sup} = 220V DC; U_{Sig} = 220V DC
59SSM08A0U7	SSM08A	8 RI; U_{Sup} = 230 V AC; U_{Sig} = 230 V AC
59SSM16A0F5	SSM16A	16 RI; U_{Sup} = 110V DC; U_{Sig} = 110V DC
59SSM16A0U7	SSM16A	16 RI; U_{Sup} = 230 V AC; U_{Sig} = 230 V AC
59SSM16R0D3	SSM16-R	16 RI; U_{Sup} = 48V DC; U_{Sig} = 48V DC
59SSM16R0F5	SSM16-R	16 RI; U_{Sup} = 110V DC; U_{Sig} = 110V DC
59SSM16R0H5	SSM16-R	16 RI; U_{Sup} = 125V DC; U_{Sig} = 125V AC/DC
59SSM16R0J7	SSM16-R	16 RI; U_{Sup} = 220V DC; U_{Sig} = 220V AC/DC
55SSM16RMEN	RM-Module	16 Relays; U_{Sup} = 48-110 V DC; NO
55SSM16RMJN	RM-Module	16 Relays; U_{Sup} = 125-220 V DC; NO

*2 The specifid voltage ranges are valid both for AC and DC.

*3 RI = Reporting Inputs for faults, OI = Operating Inputs for status indication.

Subject to change without prior notice

Contact

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