For universal application

compact fault annunciator

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info

ESF 12 universal fault annunciator
with programmable functions

Performance data:

- compact module for 12 alarms 24V ... 250V
- single-frequency flashing light
- in a compact housing suitable for DIN rail mounting
- potential separation of all current circuits
- plug-in connection terminals

General system description

The universal fault annunciator ESF 12 is designed as a single-frequency flashing indication system. Externally accessible jumpers provide the possibility to select following functions: operating sequence as no-first-up alarm or first-up alarm, horn to be retriggered or not to be retriggered with a subsequent signal, inverted or not inverted collective report as well as n.o. or n.c. circuit operation of the alarm signal inputs.

The floating lamp output contacts have been designed as normally open contacts. The alarm signal inputs are potential separated via opto-couplers from the supply voltage and can be triggered on each phase. The supply voltage circuit and the output circuit for lamps are protected by fine-wire fuses against overloading. The collective signal contact is designed as a floating change-over switch and the horn contact as a normally open contact. The following operating keys can be connected external: horn acknowledgement, flashlight acknowledgement, lamp test and functional test. It is possible to carry out a parallel connection of several devices together with synchronised flashing and if necessary a first-up relaying.

Functional description

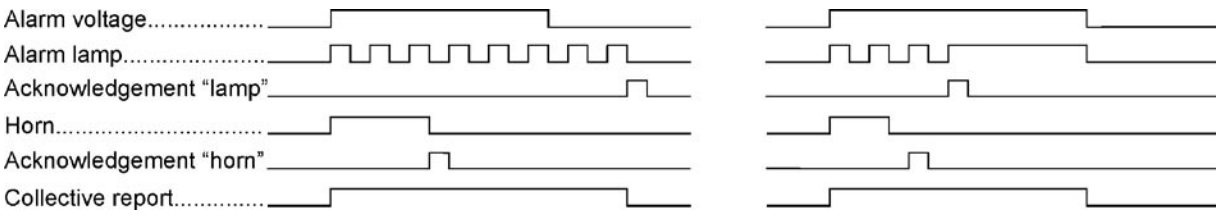
The required functions can be selected via jumpers which are at the bottom of the device. During the parallel operation of several units, only the flashing synchronisation is connected through if every component operates as an individual functional group. If, however, a first-up value is connected through, this function is transferred to the entire system; the collective report, horn, test keys and acknowledgement keys must be connected to every single component.

On operation as a single component terminals 18 and 19 must be connected.

Alarm sequence

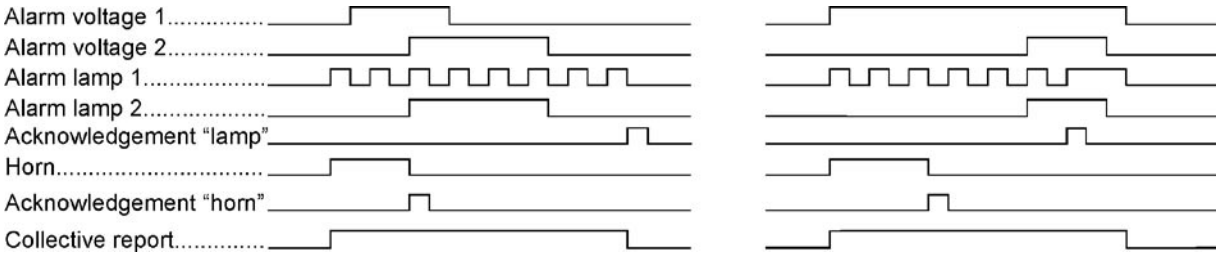
Single-frequency fault annunciating „no first-up alarm“

The presence of a fault signal for longer than approximately 100ms causes the associated LED to start flashing, horn and collective report are triggered and the alarm is stored. All incoming alarms are indicated by a flashing LED. As soon as the acknowledgement buttons for horn and lamp are activated, the horn relay falls back and causes the horn to silence and the lamp changes from flashing to permanent light, if the alarm still exists; otherwise the LED turns off. The collective report turns off only after all individual fault signals have been acknowledged and eliminated.



Single-frequency fault annunciating „first-up alarm“

The handling of the first alarm is the same as described beforehand. Following incoming alarms are immediately indicated by permanent light and turn off after all individual alarms have been eliminated.



The following functions can be selected by programming jumpers:

1) Open-circuit working (N0) or closed-circuit working (NC) of signal inputs
2) Horn will be reactivated or not in case of subsequent alarms
3) Signalling sequence as no first-up or first-up alarm
4) Collective report inverted or not inverted

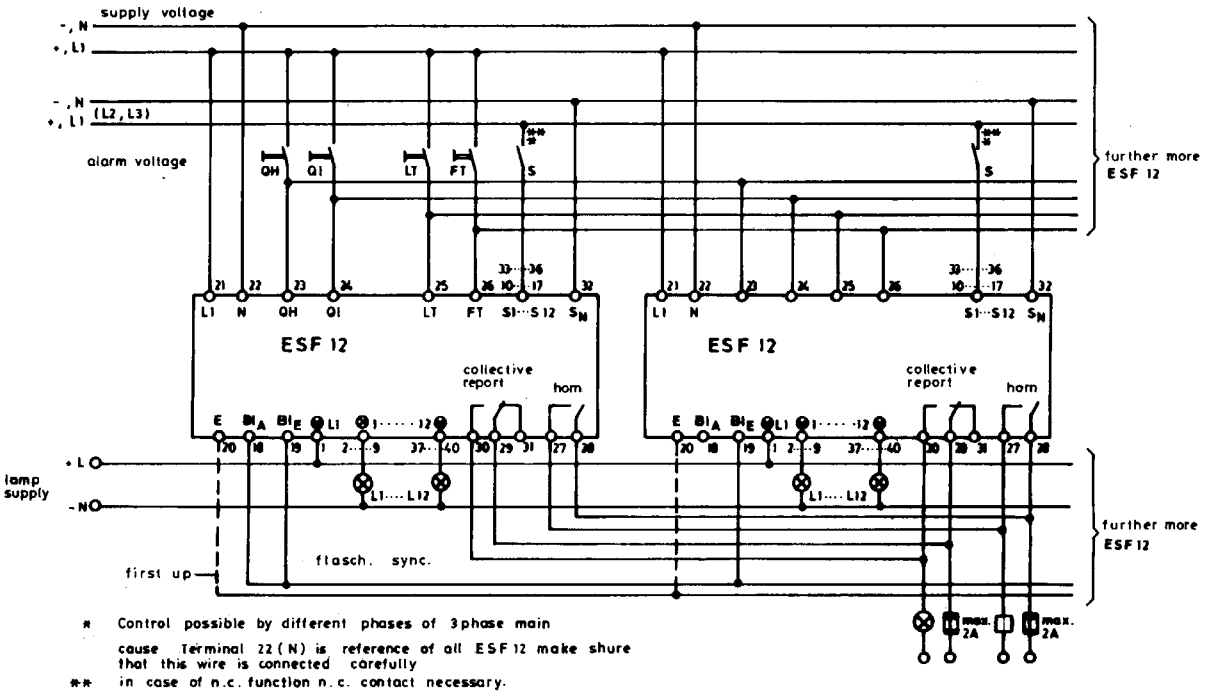
Electrical and mechanical data

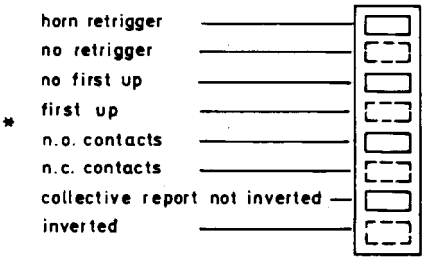
	ESF 12 / 24V	**ESF 12 / 230V AC**	**ESF 12 / 220V DC**
Alarm signal voltage	16....60V AC/DC*	160…250V AC/DC*	160…250V AC/DC*
Supply voltage	24V AC/DC* +10 / -15%	230V* 50/60 Hz +10 / - 15%	160....250V DC*
Lamp voltage	up to 250V AC/DC		
Switch-on delay	approx. 100ms		
Max. input current	approx. 2mA	approx. 1mA	approx. 1mA
Power consumption	approx. 7W		
Load of relay contacts	24…250V AC 2A / 24V AC/DC 2A / 250V DC 0,2A		
Flashing frequency	approx. 1Hz		
Peak test voltage stability of inputs	2,5kV acc. to IEC Pub 60 1.2µs /50µs		
Weight	approx. 0,6kg		
Mounting position	vertical or horizontal		

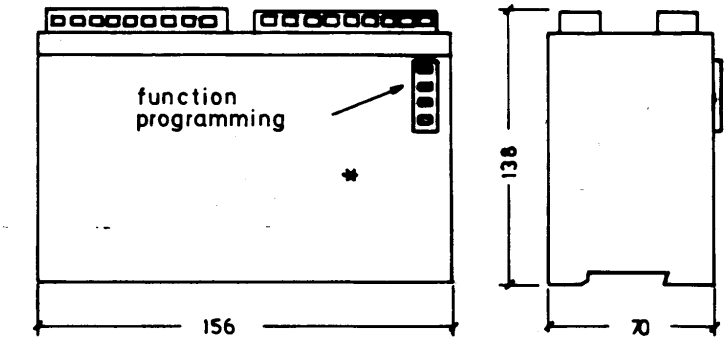
* Other voltages are available on request.

Environmental conditions

Ambient temperature	- 20°C…+ 60°C without condensation
Storage temperature	-20°C...+70°C without condensation
Operating factor	100%
Increase protection	IP 40
Terminals	nominal cross section 1,5mm² , plug-in type
Humidity	< 75% in the annual mean (Group F DIN 40040)







dimension in mm

Subject to technical changes without prior notice.

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