

SecuriFire B3-REL16E

Relay board with 24 V contacts

The B3-REL16E board contains 16 bistable 24 V / 3 A relays.

Each relay output can be used as a VdS-compliant extinguishing interface in connection with an input on the B3-IM8.



Fig. 1 B3-REL16E

Domain: SCP3000

Function/Application

The B3-REL16E has 16 freely programmable bistable 24V / 3A relays for connecting fire incident controls.

Defining whether the contact is a working or normally closed contact is done with planning software. Further, for each relay a "Fail-Safe-Position" can be defined for instances in which there is a power failure or the SCP is switched off.

The connection to the B5-BAF / B5-MRI16 is on the rear side using a 32-pin male connector via relay BUS. The peripheral devices are connected on the front side of the board with two 16-pin plug-in terminals.

Interfaces

X1 Connection to the relay BUS

X2 Connector plug for relays 9-16 (24V / 3A)

X3 Connector plug for relays 1-8 (24V / 3A)

BR1-16 Jumper for setting operation mode "Relay contact" or "VdS-compliant interface"

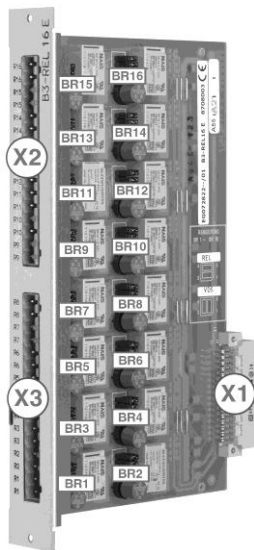


Fig. 2 B3-REL16E interfaces

Plug for relays (X2) and (X3)

Plug X2		Plug X3	
Designation	Terminal	Designation	Terminal
Relay R16	1	Relay R8	1
	2		2
Relay R15	3	Relay R7	3
	4		4
Relay R14	5	Relay R6	5
	6		6
Relay R13	7	Relay R5	7
	8		8
Relay R12	9	Relay R4	9
	10		10
Relay R11	11	Relay R3	11
	12		12
Relay R10	13	Relay R2	13
	14		14
Relay R9	15	Relay R1	15
	16		16

Technical data X2 und X3

Relay design	bistable
Switching voltage	max. 30 V AC / 30 V DC
Switching current	max. 3 A
Breaking capacity	max. 60W (2 A at 30 V)
Contact protection	Small 3.15 A fuse with slow-acting triggering
Contact resistance	max. 30 mΩ
Mechanical	plug-in screw terminal, max. 2.5 mm ²

Jumper settings

With jumpers BR1 to BR16 you select "Relay output" or VdS-compliant "Extinguishing" standard interface.

4	3	Relay output
2	1	
4	3	"Extinguishing" standard interface
2	1	

Planning

The country-specific directives apply when planning and installing automatic fire detector systems.

The B3-REL16E can be fitted in the unit rack of each SecuriFire 3000 at slots 11 to 13 of the unit rack. However, a B5-BAF or B5-MR16 board must be fitted to slot 9.

Defining whether the contact is a working or normally closed contact is done with planning software SecuriFire Studio. By programming an "Active in Fail-Safe-Position", the state of each individual relay can be defined for power supply failure or shut down of the SCP.

These are additionally fused for using the relay as a standard extinguishing interface, and the alarm resistors (680 Ω) and monitoring resistors (3.3 kΩ) are already installed.

Additionally, two inputs also have to be planned on the B3-IM8.

The B3-REL16E is supported beginning with SecuriFire Studio R 1.0.

Connection examples

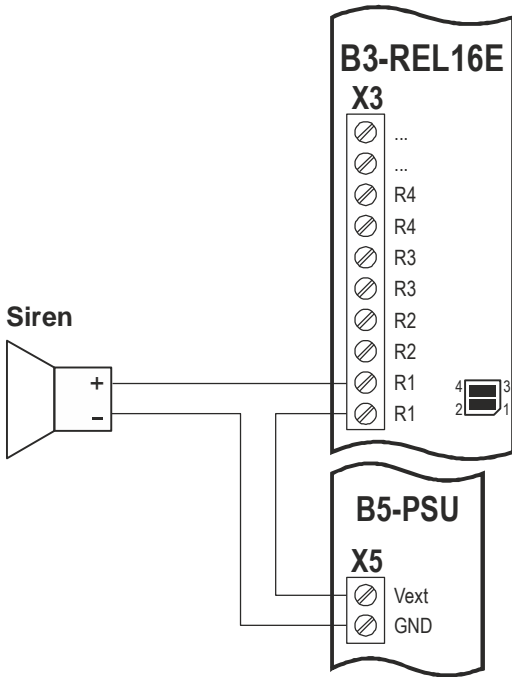


Fig. 3 Connecting working contact

When connecting inductive loads, it is recommended to use a freewheel diode (e.g. 1N4007).

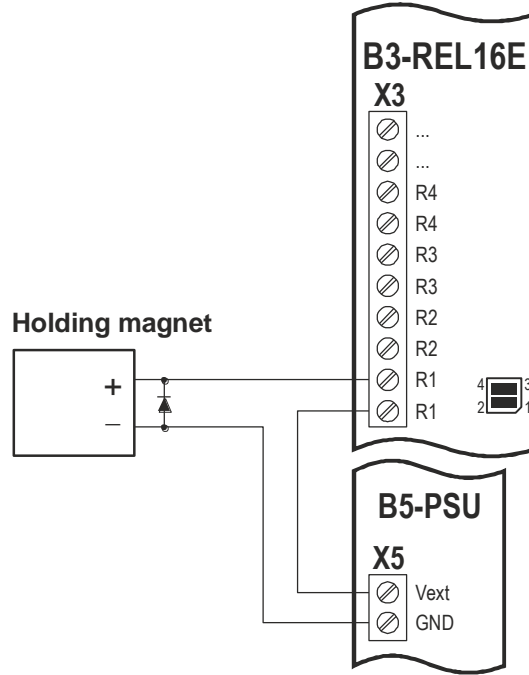



Fig. 4 Connecting normally closed contact

Interface compliant with VDE 0833-2 and VdS 2496 standards for connecting a fire alarm control panel to an electric control unit.
 In the command direction, this is comprised of any output with monitoring resistors (already included in the B3-REL16E). In the alarm direction, this is comprised of two monitored inputs (B3-IM8).

 The "Extinguishing" standard interface is NOT for directly actuating an extinguishing system!

The SecuriFire 3000 can be used either as a fire alarm control panel or electrical control unit.

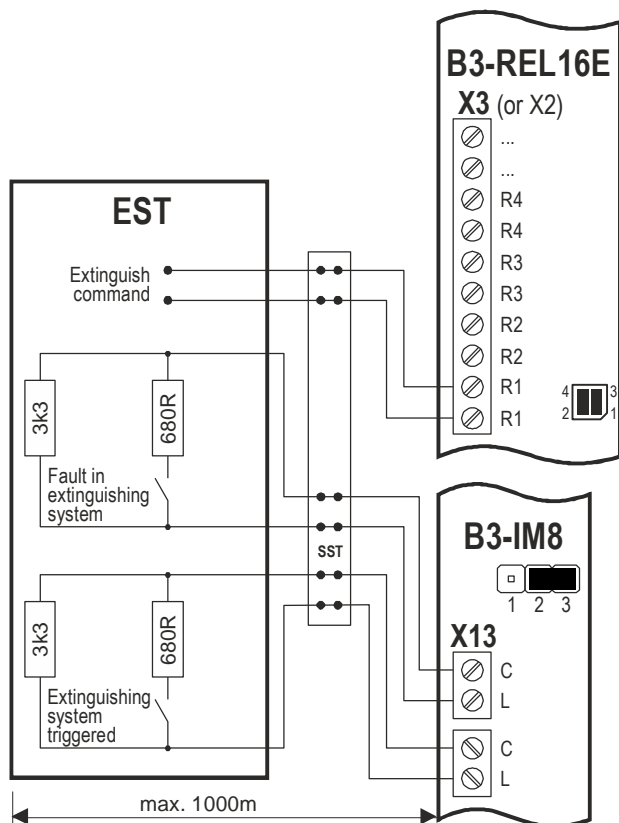


Fig. 5 SecuriFire 3000 as fire alarm control panel

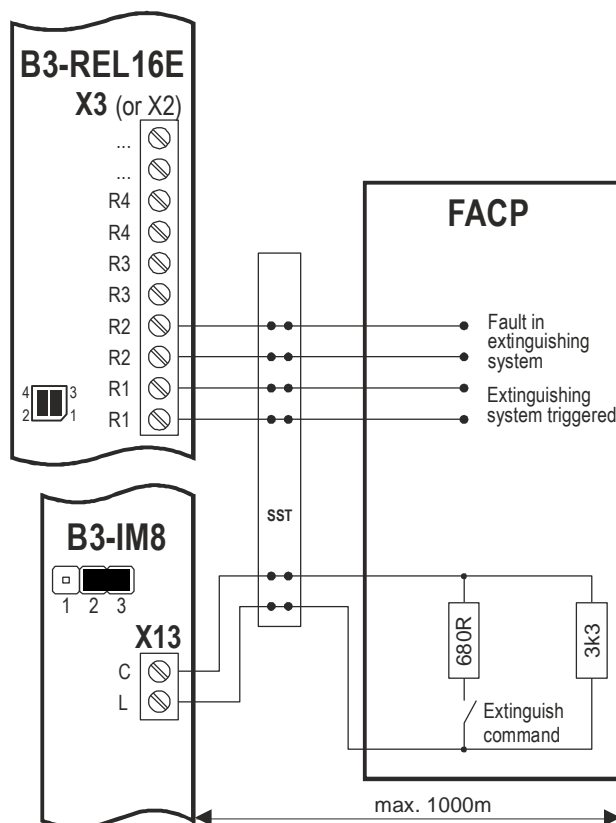


Fig. 6 SecuriFire 3000 as control unit

Article numbers / spare parts

Short designation		Art. number CH	Art. number
B3-REL16E	Relay board with 24 V contacts (incl. ST-SET REL16)	115.979 066	20-1000005-01-01
ST-SET REL16	2 pcs. plug straight (frontal screwable)	239.972 312	20-1040100-01-01
ST-SET REL16 W	2 pcs. plug angled	239.239 690	FG74105

Technical data

Power supply	provided by the unit at slot 9 via the relay BUS
Protection type	according to control panel
Ambient temperature, Relative humidity, Air pressure	according to control panel
Weight (gross/net)	440/315 g