

Features

- Control Panel for extinguishing systems with two zones
- Surface mounted or flush mounted in a wall
- Delivered as a steel cabinet with lockable front panel
- Can be used together with conventional and analogue addressable fire alarm systems
- Designed to meet EMC requirements and CE standards
- Monitored inputs and outputs
- Indicating panel with operating buttons and LED indicators
- Designed for duplicated 24V DC operating voltage
- All inputs / outputs are connected to integrated Extinguishing Release Module BA-40
- Plug terminals for easy connection

Application / Description

BA-45 is a control panel used together with automatic fire extinguishing systems.

The panel consists of 2 zone units. Each zone unit controls and monitors an extinguishing zone, which can be an area, a room, a machine, an electrical cabinet etc. Each zone unit has 5 inputs, 4 outputs and 8 LED indicators, plus 2 inhibit buttons. The BA-45's common functions consist of 4 inputs, 3 LED indicators and 3 operating buttons.

Several BA-45's can be used if more than two extinguishing zones are required.

By means of a DIP-switch (S1), a delay period can be set. It is also possible to revert the common fault output (39), plus turn off the short circuit monitoring for all inputs.

Zone unit

Inputs

- Signal input 1 and 2, break and short circuit monitored.
- Activation of signal output 1 or 2 triggers the delay period for release. Activation of signal output 2 before the delay period ends activates the release output when the delay period ends.
- Manual release. 2-stage manual release function. Stage 1 activates alarm for the zone, stage 2 gives release. Break and short circuit monitored. Two-wire connection.
- Automatic release inhibited via inhibit button on front panel or via input for external button. The input is break and short circuit monitored. Can also be used as "Hold" function during the delay period.
- Inhibit button for control output for 1st alarm.
- Monitoring of pressure in extinguisher tank. Closed contacts at normal pressure. Break and short circuit monitored.

Outputs

- Release circuit with delayed action. 22-24V DV, secured 1A. 3A current limitation in case of brief current surge (initiators). Break and short circuit monitored.
- Control output at activation of one of the signal inputs. Transistor output, 100mA. (Inhibited via front panel button).
- Extinguisher released. Potential free relay output.
- Automatic release inhibited. Transistor output, 100mA.



LED indicators

Status indicators:

- Red indicator activates at alarm on one of the signal inputs, the delay period starts (1st alarm).
- Red indicator activates at release of extinguisher.
- Yellow indicator activates when automatic release is inhibited.
- Yellow indicator activates when control output for 1st alarm is inhibited.

Fault indicators:

- Yellow indicator shows failure on release circuit.
- Yellow indicator activates if release pressure in extinguisher tank is too low.
- Yellow indicator activates if there is a failure on control input 1 or 2.
- Yellow indicator shows failure on manual release circuit, circuit for inhibit of automatic release or pressure monitoring circuit.

Operating buttons:

- Inhibit button for automatic release.
- Inhibit button for control output on 1st alarm.

Common Functions

Inputs

- 24V DC power supply, circuit 1 and circuit 2, secured.
- Silence of sounders. New alarm in other zone will reactivate sounders.
- Reset of unit.

Outputs

- Sounder alarm output at the first incoming control signal. Voltage output across relay, 24V DC / 0,5A, monitored and secured. Cancelled at activation of input "Silence Sounder Alarm". Reactivated at new alarm in new zone.
- Control output at first incoming control signal. Potential free relay.
- Common fault output. Transistor output, 100 mA. Can be reverted by means of DIP-switch S1.3.
- 24V DC output for common power supply to control outputs. Monitored and secured with 0,5A.

LED indicators (continued)

- Yellow indicator for power supply failure. Activated in case of power failure on one of the power circuits and communication failure between the front panel and the integrated Extinguishing Release Module BA-40.
- Green indicator for operating power. Indicates that one of the two power inputs is supplied with power.
- Yellow indicator for failure on sounder alarm output.

Operating Buttons

- Silence Alarm, Reset and Lamptest.

DIP-switch S1

DIP-switch S1 is mounted on the integrated Extinguishing Release Module BA-40 on the left uppermost side. Note that the switch is shown as if the unit is hold in upright position.

Delay period for release of extinguisher after activation of one of the control inputs. Settings on S1.1 and S1.2.
(Factory settings: 60 seconds)

OFF ON 1 2 3 4 0 seconds	OFF ON 1 2 3 4 30 seconds	OFF ON 1 2 3 4 60 seconds	OFF ON 1 2 3 4 180 seconds
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Status common fault signal (output 39) / Settings on S1.3.
(Factory settings: Normal)

OFF ON 1 2 3 4 S1.3 — Normal Gives 0-volt control at failure.	OFF ON 1 2 3 4 S1.3 — Reverted Breaks 0-volt control at failure.
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Status for monitoring signal input/ Settings S1.4
(Factory settings: OFF)

OFF ON 1 2 3 4 S1.4 — Break and short circuit monitored.	OFF ON 1 2 3 4 S1.4 — Break monitored only.
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Technical Specifications

Dimensions (AutoSafe)	HxWxD = 350x350x194 mm
Dimensions (conventional systems)	HxWxD = 350x350x84 mm
Weight	5,5 kg
Material	Steel cabinet, ABS/PC-cast front
Power consumption (normal) 1 zone 2 zones	70 mA 80 mA
Power consumption (alarm) 1 zone 2 zones	1,5A 3A
Ambient temperature	-5 til + 40 °C
Power supply	Duplicated 24VDC/1,5A
Release effect (at 24V DC)	25W continuous. 70W<1 seconds
Protection class	IE529/IP30

Connections / Indicators on the integrated Extinguishing Release Module BA-40

Indicators S1.1 Release Delay S1.2 Release Delay S1.3 Fault inv. S1.4 Monitoring	1st. Alarm	Connectors	Automatic inhibit output	25
	Gas released		1st. alarm output	26
	Aut. Inhibited		Gas released output	NO 27
	Release outp.		C 28	
	Press. contr.		NC 29	
	Contr. inputs		Automatic inhibit output	30
	Man./Aut./Press		1st. alarm output	31
			Gas released output	NO 32
			C 33	
			NC 34	
	Power supply	Silence Sounders. Input	+ 35	
	Sounders		- 36	
	Power	Reset inp.	+ 37	
		Com. fault output	- 38	
			39	
		Common 1st. Alarm output	NO 40	
		NC 42	41	
		Sounder output 24VDC	+ 43	
			- 44	
		24V DC 0,5A utg.	+ 45	
			- 46	
		Zone 1 Release 24VDC/1A	+ 47	
			- 48	
		Zone 2 Release 24VDC/1A	+ 49	
			- 50	

Front panel, Indicators and Switches

<p>ZONE 1</p> <ul style="list-style-type: none"> ● 1st. Alarm ● Extinguishant released ● Autom. release inhibited ● Ext. output inhibited ● Fault release output ● Low tank pressure ● Fault control inputs ● Fault man./aut./pressure circuit 	<p>ZONE 2</p> <ul style="list-style-type: none"> ● 1st. Alarm ● Extinguishant released ● Autom. release inhibited ● Ext. output inhibited ● Fault release output ● Low tank pressure ● Fault control inputs ● Fault man./aut./pressure circuit 	<p>COMMON</p> <ul style="list-style-type: none"> ● Silence sounders ● Reset ● Fault power supply ● Fault alarm output ● Lamptest ● Power <p>Control Panel for Extinguishing Systems BA-45</p>
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