

# ABAV-S3 CONTROL UNIT

for smoke detectors with service alarm

CE 6.2.6.1.E



### TECHNICAL DATA:

**Operating voltage:** 230V AC  $\pm$  10 % 50-60 Hz  
 24 V AC/DC  $\pm$  10 % 50-60 Hz  
 When ordering, state voltage.

**Energy consumption:** 1,8 VA

**Alarm relay:** One changing contact 250V 8A  
 One breaking contact 250V 8A

**Service alarm relay:** One closing contact 250V 5A

**Failure alarm relay:** One changing contact 250V 5A

**End resistor:** 2,2 k $\Omega$

### Indications:

Normal operation:	green LED
Service alarm:	yellow LED
Short circuit in detector circuit:	yellow LED
Interruption in detector circuit:	yellow LED
Alarm:	red LED

### Number of detectors

that can be connected to the unit: 30 pcs ionisation or optical smoke detectors

### Mounting:

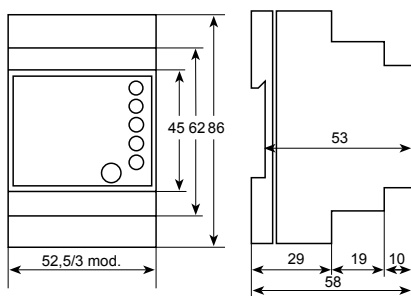
DIN-Rail  
**Weight:** 230V=280g, 24V=150g  
**Option:** ETUK-1, Housing IP-54 for wall mounting

**Surrounding temperature:** 0 to 50°C

### The following values applies for the detector circuit:

<b>Normal operation</b>	4 to 21 mA
<b>Broken Line</b>	< 4 mA
<b>Short circuit</b>	> 60 mA
<b>Service alarm</b>	
(contaminated detector)	> 21 mA
<b>Alarm (smoke)</b>	> 38 mA

### DIMENSIONS:



### FUNCTION:

The unit is designed for DIN-Rail mounting with LED/ indications on the front panel. When a smoke detector, connected to the ABAV-S3, indicates alarm for smoke, the ABAV-S3 unit will trigger an alarm relay, which can be used to stop ventilation fans and to close fire dampers.

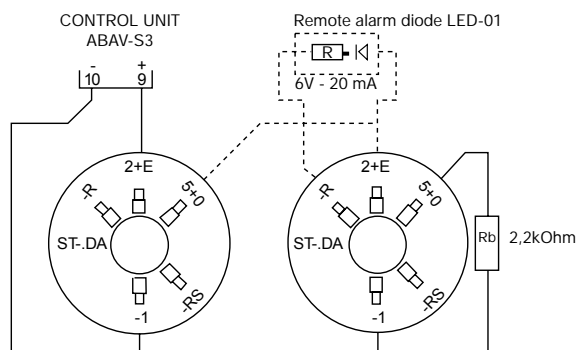
At alarm, a red LED is lit and at the same time the alarm relay drops. When a smoke detector is indicating service alarm the yellow service alarm LED starts to blink fastly during one minute. After that, the relay is energized and the LED is showing fixed yellow light. If the service alarm of the smoke detector is remedied, the service alarm relay is de-energized and the yellow LED starts to blink slowly. Service alarm is an indication that the smoke detector is contaminated and requires cleaning. Short circuit or interruption will energize the failure relay and at the same time a yellow LED is lit (for interruption there is a ten seconds delay).

If the short circuit or interruption is remedied, the failure relay is de-energized and the yellow LED starts to blink slowly.

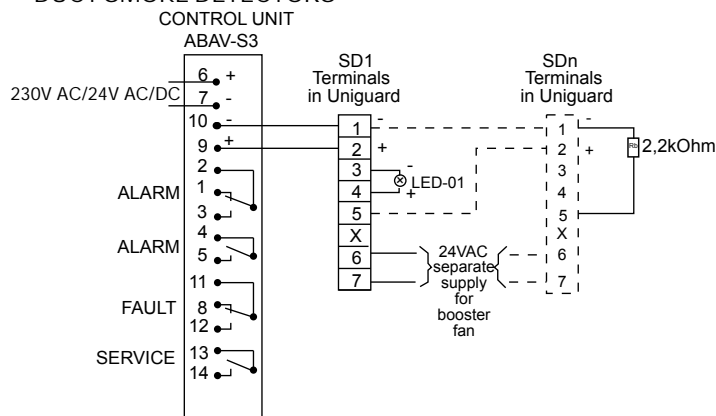
Test of relays: Press the reset button during five seconds.

### WIRING DIAGRAM:

#### CEILING MOUNTED SMOKE DETECTORS



#### DUCT SMOKE DETECTORS



The alarm relay and the failure relay outputs are shown in alarm/no power on condition and the service alarm relay is shown in operative/no power on condition.

**NOTE!** When several smoke detectors are connected in series to the same control unit, the end resistor should always be mounted in the last detector of the line.

