

# PRODUCT CATALOGUE

## DETECTORS, POWER SUPPLY UNITS AND ACCESSORIES

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# GLUED GLASS BREAK DETECTORS

ALARMTECH's GD 300 series of glued glass break detectors offers reliable and secure detectors for monitoring panes of standard or tempered glass (GD 370 and GD 375 for laminated glass) with high-level immunity to false alarms. The detectors can be installed in environments with substantial background noise enabling 24-hour security without complication. They solely detect the shattering of glass and are unaffected by background noise.

A piezoelectric crystal sensor identifies the vibration signal generated inside the glass when shattered. The detector's electronic analyser is set to high frequency in order to distinguish external disturbances from actual glass breakage. The detector is easy to install and does not require maintenance.

GD 330 and GD 370 have a built-in relay, which is powered and can be used directly via a detector loop.

GD 335 and GD 375 have a transistor output with power disabled in standby mode. These detectors must be connected to the interface unit IU 300 or directly via a detector loop especially suited to this type of detector.

## For laminated glass

GD 370 and GD 375 are for use with laminated glass as well as all other types of glass.

## Test Units

GVT 5000 is an advanced glass breakage tester, which replicates the acoustic signals generated when a glass pane is shattered or broken.

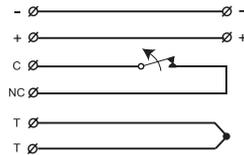
GVT 500 is a simpler test unit that can be used with the glass break detectors for standard glass, GD 330 and GD 335.

## Installing detectors on glass

The glass break detectors must be glued directly onto an undamaged glass pane to ensure detection of the vibration generated inside the glass when shattered or broken. The detectable radius depends on the thickness of the glass – the thicker the glass, the larger the radius. Standard glass of 4 mm thickness has a detectable radius of two metres from the detector. Detectors can be used with a maximum glass thickness of 6.4 mm, which extends the detection range to an approximate four-metre radius. When mounting on glass surfaces that are covered in protective film, the detector should be mounted directly on the glass pane, not on the protective film. Consequently, when installing detectors on windows covered in protective film, a 5–10 cm hole must be cut out the film. Over time, window panes are exposed to changes in temperature and humidity as well as UV radiation. It is therefore very important to use the recommended adhesive during installation and ensure the gluing process is undertaken according to instruction to guarantee detection capability.

The adhesive kit GDK 100 has successfully been used over the past 20 years, since production of the detector series first started. The glue has proved resistant to the environmental impacts of temperature, humidity and UV rays as well as the effects of cleaning products.

### GD 330 Glass Break Detector, Glued



The GD 330 is a glass break detector with relay output that can be directly connected to a control panel. It is especially designed for monitoring shop windows, sliding glass doors, ordinary windows and other exposed glass surfaces, both in public spaces and private homes.

It can be used on windows with protective film if the detector is mounted directly onto the glass and not on the film (a 5-10 cm hole must be cut out the film). It can also be used on glass cabinets to protect various types of equipment.

The GD 330 glass break detector is activated when the glass is shattered or broken and is highly resistant to interference with the glass or in its immediate environment, which makes it ideal for 24-hour monitoring.

Its circular design guarantees correct positioning.

The GD 330 is glued to the glass pane and each detector is supplied with a stencil to mark the mounting location, a glue applicator and cable clamps for quick and easy installation.

**For laminated and tempered glass please use GD 370 or 375.**

#### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 192531, Class B, SBSC 10-31, Class 1/2, FG
Supply voltage	8-15 VDC
Current consumption	5 mA (17 mA in alarm mode)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connections	Cable
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	16 x 35

#### Ordering Information

Model	Description
<b>GD 330</b>	Glass break detector with relay output, glued, 3 m cable
<b>GD 330-6</b>	Glass break detector with relay output, glued, 6 m cable
<b>GD 330-10</b>	Glass break detector with relay output, glued, 10 m cable

## GD 330-S Glass Break Detector, Glued



The GD 330-S has the same features as the GD 330 with relay output and can be directly connected to a control panel via the junction box JB 103-6.

The detector has a coiled cable with modular connector that plugs into the junction box JB 103-6, which allows it to be quickly and easily disconnected from the detector loop when, for example, cleaning windows.

**For laminated and tempered glass please use GD 370-S or 375-S.**

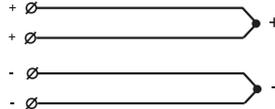
### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 192531, Class B, SBSC 10-31, Class 1/2, FG
Supply voltage	8-15 VDC
Current consumption	5 mA (17 mA in alarm mode)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable / Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range-	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	16 x 35
Dimensions box (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>GD 330-S</b>	Glass break detector with relay output, glued, coiled cable with 6-pin modular connector plug
<b>GD 330-SJ</b>	Glass break detector with relay output, glued, coiled cable with 6-pin modular connector plug and junction box JB 103-6

### GD 335 Glass Break Detector, Glued



The GD 335 is a glass break detector with transistor output that is connected to a control panel via an IU 300 interface unit. It is especially designed for monitoring shop windows, sliding glass doors, ordinary windows and other exposed glass surfaces, both in public spaces and private homes.

It can be used on windows with protective film if the detector is mounted directly onto the glass and not on the film (a 5-10 cm hole must be cut out the film). It can also be used on glass cabinets to protect various types of equipment.

The GD 335 glass break detector is activated when the glass is shattered or broken and is highly resistant to interference with the glass or in its immediate environment, which makes it ideal for 24-hour monitoring.

Its circular design guarantees correct positioning.

The GD 335 is glued to the glass pane and each detector is supplied with a stencil to mark the mounting location, a glue applicator and cable clamps for quick and easy installation.

**For laminated and tempered glass please use GD 370 or 375.**

#### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 192532, Class B, SBSC 10-32, Class 1/2, FG
Supply voltage	5-15 VDC, polarization-independent
Current consumption	5 µA (7 mA in alarm state)
Alarm output	Transistor output
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	11 x 27

#### Ordering Information

Model	Description
<b>GD 335</b>	Glass break detector with transistor output, glued, 3 m cable
<b>GD 335-6</b>	Glass break detector with transistor output, glued, 6 m cable
<b>GD 335-10</b>	Glass break detector with transistor output, glued, 10 m cable

## GD 335-S Glass Break Detector, Glued



The GD 335-S has the same features as the GD 335 with transistor output and can be directly connected to a control panel via the junction box JB 103-4.

The detector has a coiled cable with modular connector that plugs into the junction box JB 103-4, which allows it to be quickly and easily disconnected from the detector loop when, for example, cleaning windows.

**For laminated and tempered glass please use GD 370-S or 375-S.**

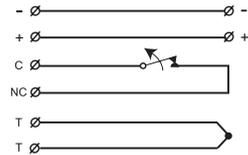
### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 192532, Class B, SBSC 10-32, Class 1/2, FG
Supply voltage	5-15 VDC, polarization-independent
Power usage	5 $\mu$ A (7 mA in alarm state)
Alarm output	Transistor output
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power disconnect
Connection	Cable / Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions(H x Ø) mm	11 x 27
Dimensions box (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>GD 335-S</b>	Glass break detector with transistor output, glued, coiled cable with 4-pin modular connector plug
<b>GD 335-SJ</b>	Glass break detector with transistor output, glued coiled cable with 4-pin modular connector plug and junction box JB 103-4

### GD 370 Glass Break Detector for Laminated Glass, Glued



The GD 370 is a glass break detector with relay output that can be directly connected to a control panel. It is especially designed for monitoring of laminated glass panes but is also suitable for standard window glass.

It is equipped with a piezoelectric sensor that provides an electrical signal with an amplitude proportional to the vibration magnitude. The signal is digitized and then processed in a microprocessor. With a first-rate detector algorithm in the microprocessor, the detector has exceptionally high immunity to interference signals that cause false alarms.

Its circular design guarantees correct positioning.

The GD 370 is glued to the glass pane and each detector is supplied with a stencil to mark the mounting location, a glue applicator and cable clamps for quick and easy installation.

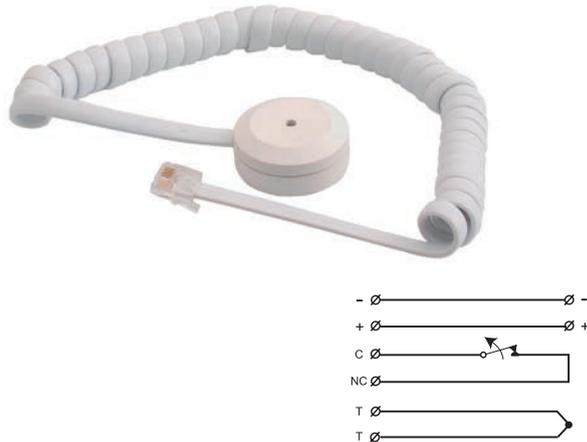
#### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 110523 Class B, SBSC 10-33 Class 3
Supply voltage	8-15 VDC
Stabilizing time	10 sec.
Current consumption	7 mA (9 mA in alarm state)
Alarm output	Relay, NC with 29 Ohm in series
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	16 x 35

#### Ordering Information

Model	Description
<b>GD 370</b>	Glass break detector for laminated glass with relay output, glued, 3 m cable
<b>GD 370-6</b>	Glass break detector for laminated glass with relay output, glued, 6 m cable
<b>GD 370-10</b>	Glass break detector for laminated glass with relay output, glued, 10 m cable

## GD 370-S Glass Break Detector for Laminated Glass, Glued



The GD 370-S has the same features as the GD 370 with relay output and can be directly connected to a control panel via the junction box JB 103-6.

The detector has a coiled cable with a modular connector that plugs into the junction box JB 103-6, which allows it to be quickly and easily disconnected from the detector loop when, for example, cleaning windows

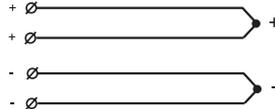
### Technical Data

Coverage	2 m radius (standard 4 mm, 6 mm glass)
Approvals	EN 50131-2-7-2:2013 Grade 2, VdS G 110523 Class B, SBSC 10-33 Class 3
Supply voltage	8-15 VDC
Stabilizing time	10 sec.
Current consumption	7 mA (9 mA in alarm state)
Alarm output	Relay, NC with 29 Ohm in series
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable / Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	16 x 35
Dimensions box (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>GD 370-S</b>	Glass break detector for laminated glass with relay output, glued, coiled cable with 6-pin modular connector plug
<b>GD 370-SJ</b>	Glass break detector for laminated glass with relay output, glued, coiled cable with 6-pin modular connector plug and junction box JB 103-6

### GD 375 Glass Break Detector for Laminated Glass, Glued



GD 375 is a passive glass break detector glued on to the glass surface. Together with interface IU 300 it forms a Grade 2 security system according to EN 50131-2-7-2 to detect an attack against float glass through smashing with blunt force or cutting or drilling with diamond tools. Application areas are shop-windows, glass sliding doors, standard windows and other vulnerable glass surfaces in public areas and private homes.

It is equipped with a piezoelectric sensor that provides an electrical signal when the glass is attacked. The signal is digitized and then processed in an electric circuit, which increases the current in the loop. With a first-rate detector algorithm, the detector has exceptionally high immunity to interference signals that cause false alarms.

Its circular design guarantees correct positioning.

The GD 375 is glued to the glass pane and each detector is supplied with a stencil to mark the mounting location, a glue applicator and cable clamps for quick and easy installation.

#### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	- -
Supply voltage	5-15 VDC
Stabilizing time	10 sec.
Current consumption	5 $\mu$ A (7 mA in alarm state)
Alarm output	Transistor output
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +55°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	11 x 27

#### Ordering Information

Model	Description
<b>GD 375</b>	Glass break detector for laminated glass with transistor output, glued, 3 m cable
<b>GD 375-6</b>	Glass break detector for laminated glass with transistor output, glued, 6 m cable
<b>GD 375-10</b>	Glass break detector for laminated glass with transistor output, glued, 10 m cable

## GD 375-S Glass Break Detector for Laminated Glass, Glued



The GD 375-S has the same features as the GD 375 with transistor output and can be directly connected to a control panel via the junction box JB 103-4.

The detector has a coiled cable with a modular connector that plugs into the junction box JB 103-4, which allows it to be quickly and easily disconnected from the detector loop when, for example, cleaning windows

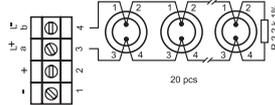
### Technical Data

Coverage	2 m radius (standard 4-6 mm glass)
Approvals	- -
Supply voltage	5-15 VDC
Stabilizing time	10 sec.
Current consumption	5 $\mu$ A (7 mA in alarm state)
Alarm output	Transistor output
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	Latching
Alarm reset	Power down
Connection	Cable / Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Housing protection class	IP 67
Dimensions (H x Ø) mm	11 x 27
Dimensions box (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>GD 375-S</b>	Glass break detector for laminated glass with transistor output, glued, coiled cable with 4-pin modular connector plug
<b>GD 375-SJ</b>	Glass break detector for laminated glass with transistor output, glued, coiled cable with 4-pin modular connector plug and junction box JB 103-4

### IU 300 Interface unit for GD 335 and GD 375



The IU 300 is an analyser and relay unit, used to connect the GD 335 and GD 375 glass break detectors to a control panel. Up to 20 detectors can be connected to the device.

IU 300 monitors resistance changes in a balanced circuit. It is possible to program it for either manual reset (Latch) or auto-reset after two seconds.

Note: An alarm from a single detector activates the alarm relay on the unit

#### Technical Data

Approvals	VdS G 194021 Class C
Supply voltage	9–15 VDC / 18–30 VDC
Current consumption	10 mA (14–36 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	2 sec / Latching
Alarm reset	Power down / Remotely / Manual
Connection	Screw terminals
Housing material, Colour (IU 300)	ABS plastic, White
Housing material, Colour (IU 300-M)	Metal, Grey
Operating temperature range	-40 to +70°C
Housing protection class	IP 41
Dimensions (L x W x H) mm	92 x 31 x 23

#### Ordering Information

Model	Description
<b>IU 300</b>	Analyser unit for GD 335 / GD 375, white plastic housing
<b>IU 300-M</b>	Analyser unit for GD 335 / GD 375, grey metal housing

## IU 370 Interface unit for GD 330 and GD 370



The IU 370 is an analyser and relay unit, used to connect the GD 330 and GD 370 glass break detectors to a control panel. Up to 10 detectors can be connected to the device.

IU 370 monitors resistance changes in a balanced circuit. It is possible to program it for either manual reset (Latch) or auto-reset after two seconds.

Note: An alarm from a single detector activates the alarm relay on the unit

### Technical Data

Supply voltage	9–15 VDC
Current consumption	16 mA (19 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection	Yes
Alarm hold time	2 sec / Latching
Alarm reset	Power down / Remotely / Manual
Connection	Screw terminals
Housing material, Colour (IU 300)	ABS plastic, White
Housing material, Colour (IU 300-M)	Metal, Grey
Operating temperature range	-40 to +70°C
Housing protection class	IP 41
Dimensions (L x W x H) mm	92 x 31 x 23

### Ordering Information

Model	Description
<b>IU 370</b>	Analyser unit for GD 330 / GD 370, white plastic housing
<b>IU 370-M</b>	Analyser unit for GD 330 / GD 370, grey metal housing

## JB 370 Junction Box for GD 370 Glass Break Detector



JB 370 is a junction box which simplifies the installation of the GD 370 glass break detector. The junction box connects GD 370 with IU 370 and/or multiple JB 370. JB 370 is equipped with a built-in resistor for termination of glass break (optional with jumper). It also has tamper protection.

When installing multiple GD 370 in an alarm system JB 370 is used as junction box at each window.

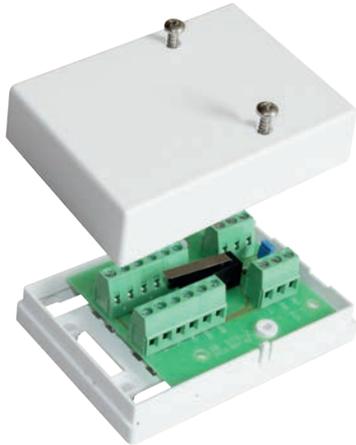
### Technical Data

Contact data	48 VDC / 100 mA
Tamper protection	Yes
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>JB 370</b>	Junction box for GD 370

## JB 370-2 Junction Box for GD 370 Glass Break Detector



JB 370-2 is a junction box which simplifies the installation of the GD 370 glass break detector. The junction box connects max 2 GD 370 with IU 370 and/or multiple JB 370/JB 370-2/JB 370-5. JB 370-2 is equipped with a built-in resistor for termination of glass break (optional with jumper). It also has tamper protection.

When installing multiple GD 370 in a location which allows for a common junction point JB 370-2 is an excellent choice of junction box

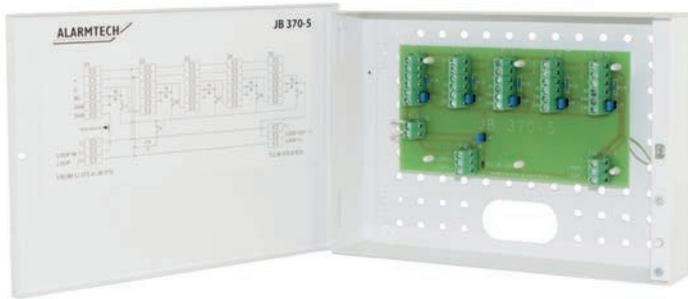
### Technical Data

Contact rating	48 VDC / 100 mA
Tamper protection	Yes
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	90 x 66 x 30

### Ordering Information

Model	Description
<b>JB 370-2</b>	Junction box for GD 370

### JB 370-5 Junction Box for GD 370 Glass Break Detector



JB 370-5 is a junction box which simplifies the installation of the GD 370 glass break detector. The junction box connects max 5 GD 370 with IU 370 and/or multiple JB 370/JB 370-2/JB 370-5.

JB 370-5 is equipped with a built-in resistor for termination of glass break (optional with jumper) as well as a jumper which allows for use of GD 370 with relay towards IU 370. It also has tamper protection.

When installing multiple GD 370 in a location which allows for a common junction point JB 370-5 is an excellent choice of junction box.

#### Technical Data

Contact rating	48 VDC / 100 mA
Tamper protection	Yes
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	217 x 150 x 52

#### Ordering Information

Model	Description
<b>JB 370-5</b>	Junction box for GD 370

## MH 300 Metal Housing for IU 300 and IU 370



Metal housing to replace standard plastic cover for the IU 300 and IU 370, for use in exposed/harsh environments.

Housing material, Colour      Metal, grey  
Dimensions (L x W x H) mm      91 x 31 x 23

### Ordering Information

Model	Description
<b>MH 300</b>	Metal housing for IU 300 and IU 370

## CG 100 Cable Conduit



The CG 100 is a cable conduit that simplifies usage and protects the glass break detector's cable or the magnetic contact when running a cable from a window through the frame to other connection points. Suitable for windows and door frames made of wood, plastic, aluminium or steel, and provides a safe and discreet installation. Sold in packs of 100 pieces.

Outer diameter 10 mm    Inner diameter 5 mm  
Drill size 8 mm      Length (approx.) 8.5 mm

### Ordering Information

Model	Description
<b>CG 100</b>	Cable conduit for cable protection

## GDK 100 Adhesive Kit



Adhesive kit for use with the GD 300 series of glass break detectors. The kit includes cleaning fluid, abrasive cloth, hardener and glue. The glue is resistant to the environmental impacts of temperature, humidity and UV rays as well as the effects of cleaning products. The adhesive kit is sufficient for gluing up to around 100 detectors.

### Ordering Information

Model	Description
<b>GDK 100</b>	Adhesive kit for GD glass break detectors

## GVT 500 Test unit



Hand-held test unit for GD 33x glued glass break detectors. Powered with 9 V battery. Easy to use and causes no damage to the test object.

Supply voltage      9 V battery, 6F22  
Housing material, Colour      ABS plastic, Black  
Dimensions (L x W x H) mm      98 x 78 x 30

### Ordering Information

Model	Description
<b>GVT 500</b>	Test unit for GD 33x glass break detectors

## GVT 5000 Test Unit for Glass Break and Vibration Detectors



Hand-held test unit for glass break and vibration detectors. Generates two types of test signals, one for GD 300 and one for VD 400 detectors. Also contains a 12V output for test of GD 300 series before mounting. Easy to use and causes no damage to the test object.

Supply voltage      8 x AA, LR 6 battery  
Housing material, Colour      ABS plastic, Beige  
Operating temperature range      -10 to +70°C  
Dimensions (L x W x H) mm      167 x 80 x 50

### Ordering Information

Model	Description
<b>GVT 5000</b>	Test unit for GD and VD detectors

# ACOUSTIC GLASS BREAK DETECTORS

## AD 700 / AD 800-AM

- > First-class monitoring of various glass types including standard glass, tempered glass, laminated glass and foiled glass
- > Advanced signal handling with microprocessor
- > DRC, Digital Room Compensation
- > Integrated event memory
- > Test functionality with the acoustic tester ADT 700
- > Easy set up using DIP switches
- > Tamper protection
- > Anti-Mask (AD 800-AM)

The AD 700 /AD 800-AM is a state of the art acoustic glass break detector for monitoring of one or multiple glass areas. It is developed with the latest microprocessor technology and has a number of advanced algorithms connected to the acoustics of the room (Digital Room Compensation, DRC). Thanks to these algorithms, a glass breakage signal can be distinguished from other interferences. The detector holds VdS and EN approvals for high immunity to false alarms. Intended for indoor installation, the device can be mounted either on a ceiling or wall, opposite the protected glass. The detection range spans 9 meters, 165°, which means that one detector can monitor multiple windows in a room. The detector should be placed in a location with an unobstructed view of the monitored glass areas. Avoid mounting the detector in corners.

## Acoustic Tester for the AD series (700/800-AM)

- > Acoustic calibration and on-the-spot testing
- > Remote test mode without opening detector
- > 3-minute timeout to conserve battery
- > Battery charging via external charger

The ADT 700 is a unique tester for use with the AD 700 detectors series as well as AD 800-AM. The tester emits a spectrum of signals at certain frequencies and sound levels. The acoustic sound from the ADT 700 that enters the room is received by the AD 700 / AD 800-AM detector via broadband microphone. The signals are filtered, processed and evaluated. The microprocessor compensates for early reflections and selects the best algorithm based on the detector location to ensure maximum detection capability. Audio signals undergo dramatic change from the broken window through the room to the detector. As a result, the AD 700 / AD 800-AM has three separate settings, each with its own algorithm. With the ADT 700 tester it is possible to test which setting is most suitable for each installation. The detector measures the characteristics of the signal and the processor gives the installer a recommendation of which setting is preferable. If several glass panes are protected by one detector, the ADT 700 repeats the test for every window to create an overview of the detection zone. The detector calculates an average value for the detection zone and provides a recommended adjustment. If the detector does not give an indication when testing, the window is located outside of the coverage zone and the detector should be relocated or an increased number of detectors are required.

## AD 700 Acoustic Glass Break Detector



The AD 700 is a state of the art acoustic glass break detector for detecting intrusion into a protected area by breakage of a window or glass pane. It is developed with the latest microprocessor technology and has a number of advanced algorithms connected to the acoustics of the room (Digital Room Compensation, DRC). Thanks to these algorithms, a glass breakage signal can be distinguished from other interferences. The detector holds VdS approval for high immunity to false alarms. Intended for indoor installation, the device can be mounted either on a ceiling or wall, opposite the protected glass. The detection range spans 165°, which means that one detector can monitor multiple windows in a room.

**NOTE: Avoid mounting the detector in the corner of a room, close to louver windows and ventilation grills.**

### Technical Data

Maximum coverage	9-metre radius / 165°
Approvals	EN 50131-2-7-1:2013 Grade 2, VdS G 104512 Class B, SBSC 10-497 Class 1/2, F&P, FG
Maximum glass surface	6 x 6 m
Maximum glass thickness	6.5 mm
Supply voltage	9 - 15 VDC
Current consumption	26 mA @12Vdc (14 mA in alarm state)
Alarm output	Relay, NC
Contact rating	50 mA/50 VDC / peak AC Rs ≤30Ω
Alarm indication	LED
Tamper protection / Rating	Yes / 50 mA/50 VDC/Peak AC
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	+5°C to +40°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	98 x 60 x 32

### Ordering Information

Model	Description
AD 700	Acoustic glass break detector

## AD 800-AM Acoustic Glass Break Detector with Anti-Mask



AD 800-AM is a new generation of acoustic glass break detector with Anti-Mask function which meets the requirements for grade 3 of the new standard EN 50131-2-7-2:2013, corresponding to the recommendations for high security installations.

The detector is designed to acoustically detect intrusion attempts into a protected area by breakage of a window or glass pane.

The detector is based on the latest microprocessor technology and has a number of advanced algorithms connected to the acoustics of the room

(Digital Room Compensation, DRC). Thanks to these algorithms, the detector can distinguish a glass breakage signal from other interferences and boasts high immunity to false alarms.

AD 800-AM has a newly developed active Anti-Mask function (overlay protection) with separate relay output for enhanced security. If attempts are made to tamper with the microphone or sensor, an Anti-Mask alarm is triggered.

Intended for indoor installation, the device can be mounted either on a ceiling or wall, opposite to the protected glass. The detection range spans 165°, which means that one detector can monitor multiple windows in a room. The detector is able to detect standard, tempered and laminated glass.

**NOTE: Avoid mounting the detector in the corner of a room, close to louver windows and ventilation grills.**

### Technical Data

Maximum coverage	9 m radius / 165°
Approvals	EN 50131-2-7-1:2013 Grade 3, VdS pending, SBSC 16-676 Class 3/4, F&P, FG
Recommended glass surface	Float glass 4 mm, laminated P2, P4 (4 mm + 4 mm)
Maximum glass surface	6 x 6 m
Settings	Zone 1 = 4 - 9 m
	Zone 2 = 2 - 4 m
	Zone 3 = 1 - 2 m
Supply voltage	7 - 30 VDC
Current consumption	12 mA @ 12 V, 7.3 mA @ 24 V
Alarm output	Relay, NC 50 mA, 50 V DC/peak AC, $R_s \leq 30 \Omega$
Tamper protection / Rating	Yes / 50 VDC / 50 mA
INTRUSION and FAULT relay contact rating	Relay, NC 50 mA, 50 V DC/peak AC
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	+5 to +40°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	68 x 40 x 109

### Ordering Information

Model	Description
AD 800-AM	Acoustic glass break detector with Anti-Mask

## ADT 700 Acoustic Tester for AD series (700/800-AM)



The ADT 700 is a unique tester for use with the AD 700 detectors series as well as AD 800-AM. The tester emits a spectrum of signals at certain frequencies and sound levels. The acoustic sound from the ADT 700 that enters the room is received by the AD 700 / AD 800-AM detector via broadband microphone. The signals are filtered, processed and evaluated. The microprocessor compensates for early reflections and selects the best algorithm based on the detector location to ensure maximum detection capability. Audio signals undergo dramatic change from the broken window through the room to the detector.

As a result, the AD 700 / AD 800-AM has three separate settings, each with its own algorithm. With the ADT 700 tester it is possible to test which setting is most suitable for each installation. The detector measures the characteristic signal and the processor recommends of the best-suited setting for each individual installation.

### Technical Data

Supply voltage	Rechargeable battery with external charger
Housing material, Colour	ABS plastic, grey
Dimensions (L x W x H) mm	190 x 110 x 60

### Ordering Information

Model	Description
ADT 700	Acoustic tester for AD 700 and AD 800-AM

# VIBRATION DETECTORS

ALARMTECH offers two types of vibration detectors: shock detectors (CD series) and seismic detectors (VD series).

The shock detectors sense vibrations of high amplitude and short duration. They are primarily used to monitor structures made with multiple joints and of soft materials, for example, window frames, door frames and brick walls, where intrusion is expected to place with the aid of blunt objects and great force. The detector sensitivity is set to low frequency vibrations that occur in soft building materials.

Seismic detectors sense vibrations of low amplitude and long duration. They are primarily used on hard, uniform materials such as steel, sheet metal and concrete, where intrusion is expected to take place with the aid of sophisticated tools. Typical applications include safes, ATMs, glass partitions and concrete walls. Seismic devices require longer detection time than shock devices, therefore they are more resistant to false alarms.

## Operating principles

Vibrations in a material that are created by external force spread inside the material, just like waves on a water surface. Every joint in a structure reflects and reduces the signal. Our shock and seismic detectors include a piezoelectric sensor that generates a signal with an amplitude proportional to the strength of the vibration.

The lower the vibration signal, the more important the contact between the sensor and monitored material becomes. This is extremely important for seismic detectors as intrusion attempts can be made with equipment that creates small vibrations. It is not of equal importance for shock detectors, which are used to monitor objects where high signal amplitude is expected.

The CD 400/CD 550 and VD 400/VD 500 are electronic detectors, each with their own evaluating electronics based on digital signal processing in a microprocessor with an advanced detection algorithm. In electronic detectors, the amplitude, frequency and duration of the vibration that triggers an alarm can be defined. There are many low frequency disturbances caused by activities within buildings as well as outside traffic that are eliminated with frequency filters and by the detector algorithm.

In a conventional mechanical detector only lower frequencies can be detected, due to the principle that a weight must be moved and cause brief interruption to an electrical circuit. Although a weight cannot swing at high frequencies, molecules of a piezoelectric crystal can. An electronic detector with an advanced detection algorithm is therefore more resistant to false alarms than a mechanical detector.

## VD 400 Seismic Detector



The VD 400 seismic detector provides reliable detection and high immunity to false alarms when mounted on steel or concrete objects such as firearm cabinets, safes, concrete walls etc.

It detects intrusion attempts with explosives and mechanical tools such as diamond drills, cutting wheels, grinders and thermal tools. Reliability of the device is ensured by three independent detection channels, DSP (Digital Signal Processing) of events in the processor and an advanced algorithm for signal processing. This algorithm also provides high immunity to external disturbances. It is vital to mount the detector with secure surface contact and to ensure it is not mounted on joints in the surface material.

When mounting on concrete and brick walls, the MP 400 mounting plate with anchor bolt should always be used. In severe environments, either indoors or outdoors, the special WH 400 housing with integrated heaters should be used to maintain suitable temperature and humidity for the detector.

The VD 400 seismic detector is equipped with a visual alarm indicator (LED) and tamper protection against attempts at opening the housing.

### Technical Data

Approval	- -
Supply voltage	9 - 15 VDC
Current consumption	9 mA (10 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indicator	LED
Tamper protection / Output	Yes / 48 VDC / 50mA
Connection	Screw terminals
Housing material, Colour	Metal, Grey
Operating temperature range	-10 to +70°C
Housing protection class	IP 32
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>VD 400</b>	Seismic detector
<b>VD 400-Z1</b>	Detector set with 1 VD 400, stainless steel cable sleeving MC T4 and junction box JB 102
<b>VD 400-Z2</b>	Detector set with 2 VD 400, stainless steel cable sleeving MC T4 and MC T7 and junction box JB 102

### VD 500 Seismic Detector



The VD 500 seismic detector provides reliable detection and high immunity to false alarms when mounted on steel or concrete objects such as firearm cabinets, payment terminals, ATMs, safes, concrete walls etc. It detects intrusion attempts with explosives and mechanical tools such as diamond drills, cutting discs, grinding and thermal tools.

The VD 500 includes digital signal processing (DSP) with an advanced detection algorithm. As a result, the detector is high performing with high immunity to external disturbances. The device has 3 separate detection channels: integration channel (detects weak signals), count channel (up to 4 events) and explosion channel (detects strong signals with short duration). The sensitivity and type of object to be protected is selected via a DIP switch.

The detector is small in size and suitable for installation in limited spaces.

When mounting, ensure that the detector is secured firmly to the contact surface. When mounting on concrete and brick walls, the MP 500 mounting plate with anchor bolt should always be used. In severe environments, either indoors or outdoors, the special WH 400 housing with integrated heaters should be used to maintain suitable temperature and humidity for the detector.

The VD 500 seismic detector is equipped with a temperature sensor that triggers an alarm at 75°C or 6°C/min, tamper protection against attempts at breaking or opening the housing as well as a self-test generator with a separate input for testing control.

#### Technical Data

Approvals	VdS G 114006 Class C, SBSC 13-573 Class 3/4, F&P, FG
Supply voltage	8 - 30 VDC
Current draw (standby)	7.5 mA @ 12 V / 4.6 mA @ 24 V
Current draw (alarm)	8,4 mA @ 12 V / 5.1 mA @ 24 V
Alarm output	NC
Contact rating	35 VDC / 100 mA
Alarm indication	LED (not visible when lid is attached)
Tamper protection / Rating	Yes / 35 VDC / 50mA
Connection	Screw Terminals
Housing material, Colour	Metal, Grey
Operating temperature range	-40 to +70°C
Housing protection class	IP 43
Dimensions (L x W x H) mm	86 x 41 x 23

#### Ordering Information

Model	Description
<b>VD 500</b>	Seismic detector
<b>VD 500-Z1</b>	Detector set with 1 VD 500, stainless steel flexi-tube MC T4 and junction box JB 102
<b>VD 500-Z2</b>	Detector set with 2 VD 500, stainless steel flexi-tube MC T4, MC T7 and junction box JB 102

## CD 400 Shock Detector



The CD 400 shock detector provides reliable protection for windows, doors and walls made of soft materials against forceful entry with burglary tools. It includes digital signal processing with an advanced detection algorithm. As a result, the detector has high detection capability as well as high immunity to external disturbances.

The sensitivity of the CD 400 detector is easily adjusted via a potentiometer. To test the detector, we recommend using the CT 400 test unit, which generates frequencies similar to a real burglary. The detector senses vibrations of high amplitude and short duration. It includes a pulse counter (user-elected from 1 to 4 pulses) that triggers an alarm after the chosen number of pulses have been counted. An explosion channel overrides the pulse counter, regardless of the number of pulses and sensitivity setting.

The device can be used on materials with multiple parts, such as door frames, brick or concrete walls, ceilings and floors etc. The detector is equipped with an LED alarm indicator and tamper protection against attempts at opening the housing.

For mounting on concrete or concrete-like surfaces, use the special MP 400 mounting plate. When installing the detector outdoors or in cold environments the WH 400 housing should be used.

### Technical Data

Approvals	VdS G 197537 Class B, SBSC 10-367 Class 3/4
Supply voltage	8 - 15 VDC
Current consumption	9 mA (11 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection / Rating	Yes / 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +70°C
Housing protection class	IP 42
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
CD 400	Shock detector

## CD 400-R Shock Detector with Magnetic Contact



The CD 400-R shock detector with magnetic contact can be used on windows and doors to provide double protection. It detects all intrusion attempts with tools that create strong vibrations. The detector senses vibrations of high amplitude and short duration. It has digital signal processing an advanced detection algorithm. As a result, the detector is high performing with high immunity to external disturbances.

The sensitivity in the CD 400-R detector can be easily adjusted via a potentiometer. To test the detector, we recommend using the CT 400 test unit, which generates frequencies similar a real burglary. It includes a pulse counter (user-elected from 1 to 4 pulses) that triggers an alarm after the chosen number of pulses have been counted. An explosion channel overrides the pulse counter, regardless of the number of pulses and sensitivity setting.

The device can be used on materials with multiple parts, such as door frames, brick or concrete walls, ceilings and floors etc. The detector is equipped with an LED alarm indicator and tamper protection against attempts at opening the housing. Thanks to the built-in magnetic contact with separate alarm output, the device is also able to protect windows and doors against attempted opening.

For mounting on concrete or similar surfaces, use the special MP 400 mounting plate. When installing the detector outdoors or in cold environments the WH 400 housing should be used.

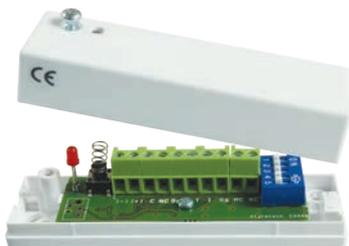
### Technical Data

Approvals	--
Supply voltage	8 - 15 VDC
Current consumption	9 mA (10 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Magnetic contact alarm output	NC
Alarm indication	LED
Tamper protection / Rating	Yes / 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +70°C
Housing protection class	IP 42
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
CD 400-R	Shock detector with magnetic contact

## CD 550 Shock Detector



The CD 550 Shock Detector mounts on various objects providing their reliable protection. The CD 550 detects and indicates any attempt to break into the object using tools applied with much power, or even explosives. This detector senses momentary high amplitude vibrations. It includes a programmable event counter which makes the detector trip an alarm once the pre-programmed number of events (1, 2, 3 or 4) have occurred. Still the detection of an explosion trips an alarm regardless of the number of the counted events.

The CD 550 mounts on elastic, multi-element structures (e.g. window / door frames and casings) and on brick walls one might attempt to penetrate using a blunt instrument applied with much power. For mounting on concrete or concrete-like surfaces use preferably the special MP 550 mounting plate. When installing outdoors or in cold rooms use the WH 550 housing protecting against severe weather conditions.

The CD 550 is based on an advanced signal processing algorithm microcontroller offering digital processing of the recorded events which translates into operation reliability and immunity to ambient interferences.

The desired sensitivity of the CD 550 is selected by DIPswitch. The effective adjustment can be verified with the CT 400 which simulates real attack vibrations. The impact power it uses remains always at the same level.

### Technical Data

Approvals	-
Supply voltage	8-30 VDC
Current draw (standby)	5.5 mA @ 12 V, 6 mA @ 24 V
Current draw (alarm)	6 mA @ 12 V, 6.5 mA @ 24 V
Alarm output	relay NC, res.< 30 Ohm
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection / Rating	Yes / 35 VDC / 50mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +70°C
Housing protection class	IP 42
Dimensions (L x W x H) mm	80 x 23 x 20

### Ordering Information

Model	Description
CD 550	Shock detector

## CD 550-R Shock Detector with Magnetic Contact



The CD 550-R Shock Detector with magnetic contact mounts on various objects providing their reliable protection. The CD 550-R detects and indicates any attempt to break into the object using tools applied with much power, or even explosives. This detector senses momentary high amplitude vibrations. It includes a programmable event counter which makes the detector trip an alarm once the pre-programmed number of events (1, 2, 3 or 4) have occurred. Still the detection of an explosion trips an alarm regardless of the number of the counted events.

The CD 550-R mounts on elastic, multi-element structures (e.g. window / door frames and casings) and on brick walls one might attempt to penetrate using a blunt instrument applied with much power. For mounting on concrete or concrete-like surfaces use preferably the special MP 550 mounting plate. When installing outdoors or in cold rooms use the WH 550 housing protecting against severe weather conditions.

The CD 550-R is based on an advanced signal processing algorithm microcontroller offering digital processing of the recorded events which translates into operation reliability and immunity to ambient interferences.

The desired sensitivity of the CD 550-R is selected by DIPswitch. The effective adjustment can be verified with the CT 400 which simulates real attack vibrations. The impact power it uses remains always at the same level.

### Technical Data

Approvals	-
Supply voltage	8 - 30 VDC
Current draw (standby)	5.5 mA @ 12 V, 6 mA @ 24 V
Current draw (alarm)	6 mA @ 12 V, 6.5 mA @ 24 V
Alarm output	NC
Contact rating	35 VDC / 100 mA
Magnetic contact alarm output	NC
Alarm indication	LED
Tamper protection / Rating	Yes / 35 VDC / 50mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +70°C
Housing protection class	IP 42
Dimensions (L x W x H) mm	80 x 23 x 20

### Ordering Information

Model	Description
<b>CD 550-R</b>	Shock detector with magnetic contact

## MP 400 Mounting Plate



Metal mounting plate for mounting the CD 400 and VD 400 on to brick or concrete walls and other hard surfaces. The mounting plate is attached using the supplied anchor bolt, which ensures a wide detection area.

Housing, colour Metal, grey  
Dimensions (L x W x H) mm 95 x 34 x 5

### Ordering Information

Model	Description
<b>MP 400</b>	Mounting plate for CD 400 / VD 400

## MP 500 Mounting Plate



Metal mounting plate for mounting the VD 500 on to brick or concrete walls and other hard surfaces. The mounting plate is attached using the supplied anchor bolt, which ensures a wide detection area.

Housing material, Colour Metal, grey  
Dimensions (L x W x H) mm 85 x 40 x 5

### Ordering Information

Model	Description
<b>MP 500</b>	Mounting plate for VD 500

## MP 500W Welding Plate



Metal welding plate for mounting VD 500 on to steel surfaces.

Housing material, Colour Metal, grey  
Dimensions (L x W x H) mm 85 x 40 x 5

### Ordering Information

Model	Description
<b>MP 500W</b>	Welding plate for VD 500

## WH 400 Metal Housing with Heater



Metal housing with integrated heating element for the CD 400 and VD 400 when the detectors are mounted in cold and damp areas. The housing is supplied with anchor bolts, which ensure a wide detection area.

Housing material, Colour Metal, grey  
Dimensions (L x W x H) mm 115 x 65 x 32

### Ordering Information

Model	Description
<b>WH 400</b>	Metal housing with heater

## CT 400 Tester



Test equipment for the CD 400 to be used during maintenance and installation. The CT 400 is a small mechanical testing device that generates a defined vibration signal for testing the CD 400.

### Ordering Information

Model	Description
<b>CT 400</b>	Tester



### FB 500 Recess Box for floor mounting

Recess box made of special steel (Magnelis) for mounting of VD 500 in the floor or other hard surfaces. It is designed for mounting and cast into the floor of the museum, vault, safe deposits and gold deposits, and to cope with the pressure of a golden chariot at 5 tons. The box has threaded holes for VD 500 and for mounting a connection box Fatum 28016.03.

The box is attached with supplied expansion bolts that provide a large detection range but also to level the box during assembly. There are also ready-made „knockout holes” for a conduit pipe which makes installation easier. The box is equipped with an opening contact in order to provide extra security.

#### Technical Data

Housing, colour	Metal, Grey
Dimensions (L x W x H) mm	220x155x52

#### Ordering Information

Model	Description
<b>FB 500</b>	Recessed box for floor mounting of VD 500



### WB 500 Recess Box for wall mounting

Recess box for wall mounting made of special steel (Magnelis) for mounting the VD 500 in concrete or in other hard surfaces. It is also adapted to be embedded in the wall.

The box is attached with supplied expansion bolts that provide a large detection range but also to level the box during assembly. The box has threaded holes for VD 500 and for mounting a connection box Fatum 28016.03. There are also ready-made „knockout holes” for a conduit pipe which makes installation easier. The box is equipped with an opening contact in order to provide extra security.

#### Technical Data

Housing, colour	Metal, Grey
Dimensions (L x W x H) mm	220x155x52

#### Ordering Information

Model	Description
<b>FB 500</b>	Recessed box for wall mounting of VD 500

# PERSONAL ATTACK BUTTONS

When developing ALARMTECH's series of personal attack buttons we have considered the prevalent problems with the simpler devices on the market.

Our devices, therefore, do not include heavy elements that can be affected by external magnetic fields or are sensitive to impact but instead have real gold-plated switches to ensure long and reliable operation. All our devices have appropriate screw terminals with wire protection for ease of installation and are also equipped with anti-tamper switches that protect against unauthorised opening.

There are two main types of switches: electronic and mechanical. Our most advanced personal attack button, the HB 120, is an electronic switch with dual push button operation and built-in event memory. It has two relay outputs that allows for two differing events to be indicated, for example assault and incident.

Mechanical buttons are available with dual or single push-button operation and either latching or momentary switch functions.

### HB 105-M Personal Attack Button



The HB 105-M is a mechanical personal attack button that can be used for various functions within an alarm system. The HB 105-M has two momentary push-button switches with alternating (NC/ NO) function in the terminal. The buttons can be assigned either a single function or

separate functions. There is also an input to control the built-in LED as well as an anti-tamper switch to protect against unauthorised opening

#### Technical Data

Alarm output	2 x NC/NO
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection / Rating	Yes / 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +55°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	80 x 65 x 30

#### Ordering Information

Model	Description
HB 105-M	Personal attack switch with dual momentary push-buttons

### HB 105-L Personal Attack Button



The HB 105-L is a mechanical personal attack switch that can be used for various functions within an alarm system. The HB 105-L has two latching push button switches with alternating (NC/ NO) function in the terminal. The buttons can be assigned either a single function or

separate functions. There is also an input to control the built-in LED as well as an anti-tamper switch to protect against unauthorised opening.

#### Technical Data

Alarm output	2 x NC/NO
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection / Rating	Yes / 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +55°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	80 x 65 x 30

#### Ordering Information

Model	Description
HB 105-L	Personal attack switch with dual latching push-buttons

## HB 120 Electronic Personal Attack Button



The HB 120 is an advanced electronic personal attack button that can be used for various functions within in an alarm system.

The HB 120 has two push buttons that allow for two separate alarm features.

Alarm 1 is activated by a dual button function (red LED indicator) and Alarm 2 by a single button function (green LED indicator). It has an anti-tamper switch to protect against unauthorised opening. With its flat and compact size it is discreet and easy to install in most types of environments.

### Technical Data

Supply voltage	8 - 15 VDC
Current consumption	7mA (24 mA in alarm mode)
Alarm output	2 x Relay, NC
Contact rating	48 VDC / 100 mA
Alarm indication	LED
Tamper protection / Rating	Yes / 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +55°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	80 x 65 x 30

### Ordering Information

Model	Description
HB 120	Electronic personal attack button

### HB 205 Personal Attack Button



The HB 205 is a personal attack button with momentary NC function. It has an anti-tamper switch to protect against unauthorised opening.

#### Technical Data

Alarm output	NC
Contact rating	48 VDC / 100 mA
Tamper protection	NC, 48 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +55°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	62 x 50 x 35

#### Ordering Information

Model	Description
<b>HB 205</b>	Personal attack button, single momentary push-button

### HB 205-L Personal Attack Button



The HB 205-L is a personal attack button with NC function and latching push-button. The button is reset to its initial state after a further button push. There is also an input to control the built-in LED and an anti-tamper switch to protect against unauthorised opening.

#### Technical Data

Alarm output	NC
Contact rating	48 VDC / 100 mA
Alarm indication	Red LED, 12 VDC
Tamper protection	NC, 12 VDC / 50 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +55°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	62 x 50 x 35

#### Ordering Information

Model	Description
<b>HB 205-L</b>	Personal attack button, single latching push-button

# JUNCTION BOXES

ALARMTECH has developed a series of junction boxes and cable loops suitable for most types of security installations.

There are different varieties of junction boxes depending on application, for example, our compact JB 6 box is small in size and suitable for installation by a door or window frame.

Simple and discreet installation has been taken into consideration during the development. The boxes have appropriate screw terminals with wire protection and are ready for attachment of a 10 x 20 mm cable trunking.

## JB 6 Junction box



The JB 6 is a small and discreet junction box with anti-tamper switch. The box has 6 screw terminals with wire protection, 2 of which are intended for anti-tamper switch connection.

### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	57 x 20 x 17

### Ordering Information

Model	Description
JB 6	Junction box, 6 terminals

## JB 12 Junction box



The JB 12 is a 12-pin junction box with anti-tamper switch. The box has 12 screw terminals with wire protection, 2 of which are intended for anti-tamper switch connection. The box is easy to install and has been developed to discreetly and simply connecting to a cable trunking system.

### Technical Data

Tamper protection	Yes
Connection	Screw Terminal Block (Screw terminals)
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	90 x 66 x 30

### Ordering Information

Model	Description
JB 12	Junction box, 12 terminals

## JB 22 Junction box



The JB 22 is a 22-pin junction box with anti-tamper switch. The box has 22 screw terminals with wire protection, 2 of which are intended for anti-tamper switch connection. The box is easy to install and has been developed to discreetly and simply connecting to a cable trunking system.

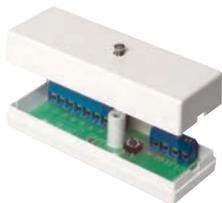
### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	90 x 66 x 35

### Ordering Information

Model	Description
JB 22	Junction box, 22 terminals

## JB 102 Junction box



The JB 102 is a 12-pin junction box with anti-tamper switch. The box has 12 screw terminals with wire protection, 2 of which are intended for anti-tamper switch connection. The box is easy to install and has been developed to discreetly and simply connecting to a cable trunking system.

### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>JB 102</b>	Junction box, 12 terminals

## JB 103-4 Junction box



An 8 screw terminal junction box with wire protection and a 4/4 modular connector for connection to the GD 335-S or GD 375-S glass break detector. Tamper switch in series with the alarm loop in the modular connector.

### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>JB 103-4</b>	Junction box for GD 335-S / GD 375-S glass break detector

## JB 103-6 Junction box



An 8 screw terminal junction box with wire protection and a 6/6 modular connector for connection to the GD 330-S or GD 370-S glass break detector. Tamper switch in series with the alarm loop in the modular connector.

### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Dimensions (L x W x H) mm	91 x 31 x 23

### Ordering Information

Model	Description
<b>JB 103-6</b>	Junction box for GD 330-S / GD 370-S glass break detector

## JB 200 Installation box



A junction box without corresponding input terminals or cards. Installation space for various types of cards, for example, relay cards RC 010 and RC 020.

### Technical Data

Housing colour	White, ABS plastic
Dimensions (L x W x H) mm	90 x 66 x 35

### Ordering Information

Model	Description
JB 200	Installation box

## JB 300 Installationsbox



JB 300 is an empty metal housing with tamper protection against forced opening. Suitable for external equipment such as relay cards and terminal blocks. There are pre-drilled holes at the back of the housing for installation of enclosed plastic spacers.

### Technical Data

Tamper protection	Yes
Housing material, Colour	Metal, White
Housing protection class	IP 43
Dimensioner (L x B x H) mm	220 x 155 x 52

### Ordering Information

Model	Description
JB 300	Installationsbox

## JB 400 Installation Box



JB 400 is an empty metal housing with tamper protection against forced opening. Suitable for external equipment such as relay cards and terminal blocks. There are pre-drilled holes at the back of the housing for installation of enclosed plastic spacers.

### Technical Data

Tamper protection	Yes
Housing material, Colour	Metal, White
Housing protection class	IP 43
Dimensions (L x W x H) mm	266 x 175 x 52

### Ordering Information

Model	Description
<b>JB 400</b>	Installation box

## JB 50 Junction Box in Metal for Enhanced Safety



The JB 50 is a 10-terminal junction box in metal with tamper switch for connection of seismic detectors, where increased safety and durability is required. The box has 10 screw terminals with wire protection, 2 of which are specified for the tamper switch. The box has an input for the stainless steel hose MC T2, T4 or T7, which locks with grooves inside the box for safe installation and operation. The box is easy to mount with screws.

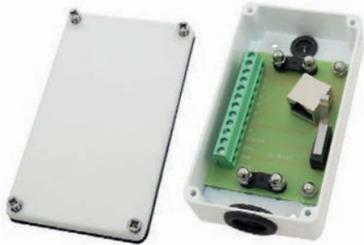
### Technical Data

Tamper protection	Yes
Connection	Screw terminals
Housing, Colour	Metal, Grey
Housing protection category	IP 43
Dimensions (L x W x H) mm	86 x 41 x 23

### Ordering Information

Model	Description
<b>JB 50</b>	Junction box in metal, 10-pin

## JB RJ45 Junction Box in Metal



JB RJ45 is a junction box with a RJ45 jack and 12 terminals, 2 of which are intended for the tamper switch. The junction box is intended for alarm and access control systems where a more durable and safe box is needed. There are 3 cable entries, at the top, bottom and back, for discreet installation. The box is also equipped with strain relief for the RJ45 connector. The screw terminals feature rising cage clamp for secure installation.

### Technical Data

Tamper protection	Yes
Connection	Screw terminals with rising cage clamp, RJ45 connector
Housing material, Colour	Metal, White
Housing protection class	IP 44
Dimensions (L x W x H) mm	115 x 65 x 28

### Ordering Information

Model	Description
<b>JB RJ45</b>	Junction box, 12 pin, RJ45 connector

## JB 24WH Junction Box in Metal



JB 24WH is a 24 terminal junction box in metal designed for use outside or in cold environments. It is equipped with an internal heating element and tamper switch. The junction box is intended for alarm and access control systems where a more durable and safe box is needed. The cable entry is made of UV resistant plastic and allows for a cable diameter of 4.5–10 mm.

### Ordering Information

Supply voltage	12-24 VDC for the internal heating element
Current consumption	5 W, 80 mA
Tamper protection	Yes
Connection	Screw terminals with rising cage clamp
Housing material, Colour	Metal, White
Housing protection class	IP 43
Dimensions (L x W x H) mm	115 x 65 x 28

### Ordering Information

Model	Description
<b>JB 24WH</b>	Junction box, 24 pin, internal heating element

# DOOR LOOPS

A door loop is used to protect and simplify transmission of signals with a cable from windows and doors to the frame. Alarmtech's product range offers door loops both with and without terminal connectors/blocks.

The DL 6 door loop with terminal consists of a junction box with tamper protection. The cable connecting door and frame has a 6-pin modular connector at each end that easily snaps into the terminal connector. The cover of the junction box locks the connector and it can only be disconnected when the cover is removed. The cable may either be straight or coiled.

The door loops without terminals consist of a flexible stainless steel hose and two mounting plates with latching hooks that secure the stainless steel hose.

The stainless steel armoured flexi-tube with end caps is available with a white or brown plastic coating. The cable is protected against the sharp edges of the metal hose at each end with a plastic conduit.

The mounting plates have extra room to allow for cable splicing. Furthermore, there are selected openings of the cable in three directions to ensure it can easily be cut in the direction required.

The stainless steel armoured flexi-tube is available in two outside diameters - 8 mm and 14 mm - with supplementary end caps. The plastic conduit that protects the cable at both ends allows for a cable diameter of 4 mm for the DL 8 series and 8.8 mm for the DL 14 series.

### DL 8 Door loop



The DL 8 series of door loops is used to protect and simplify transmission of signals with a cable from windows and doors to the frame. The loops consist of a long, stainless steel armoured flexi-tube, with two end caps with locking grooves to secure the flexi-tube and provide a safe installation. The stainless steel flexi-tube is available in 2 lengths – 400 mm and 600 mm. The cable is protected against the sharp edges of the metal flexi-tube at each end with a plastic conduit that allows a maximum cable diameter of 4 mm. The flexi-tube has an outer diameter of 8 mm and an inner diameter of 6 mm.

The door loops are available in a nickel-plated design or an either white or brown plastic coating. Delivered complete with 4 screws.

#### Technical Data

Outer diameter	8 mm
Inside diameter	6 mm
Max cable diameter	4 mm
Mounting plate dimensions	29.5 x 29.5 x 10 mm
Length	DL 8-40 - 400 mm (reinforced hose)
	DL 8-60 - 600 mm (reinforced hose)

#### Ordering Information

Model	Description
<b>DL 8-40</b>	Door loop, 400 mm, stainless steel
<b>DL 8-40 W</b>	Door loop, 400 mm, white
<b>DL 8-40 B</b>	Door loop, 400 mm, brown
<b>DL 8-60</b>	Door loop, 600 mm, stainless steel
<b>DL 8-60 W</b>	Door loop, 600 mm, white
<b>DL 8-60 B</b>	Door loop, 600 mm, brown

### DL H8 Mounting plate/end caps for door loop



The DL H8 is a mounting plate/end caps with locking grooves, which secures the stainless steel flexi-tube and provides a safe installation. It is suitable for DL 8-40 and DL 8-60 as well as MC T2, T4 and T7. Delivered complete with mounting screws.

#### Technical Data

Dimensions (L x W x H)	29.5 x 29.5 x 10 mm
Colour	White

#### Ordering Information

Model	Description
<b>DL H8</b>	Mounting plate/end caps for cable loop, white

## DL 14 Door loop



The DL 14 series of Door loops are used to simplify and protect transmission of signals with a cable from window and doors to the frame. The loops consist of a long and stainless steel flexi-tube, with two end caps with locking grooves to secure the flexi-tube and provide a safe installation. The stainless steel flexi-tube is available in 2 lengths – 400 mm and 600 mm. The cable is protected against the sharp edges of the metal flexi-tube at each end with a plastic end caps that allows a maximum cable diameter of 8.8 mm. The metal flexi-tube has an outer diameter of 14 mm and an inner diameter of 10.5 mm.

The door loops are available in a nickel-plated design or an either white or brown plastic coating. Delivered complete with 4 screws.

### Technical Data

Outer diameter	14 mm
Inside diameter	10.5 mm
Max cable diameter	8.8 mm
Mounting plate dimensions	36 x 36.5 x 17.7 mm
Length	DL 14-40 - 400 mm (reinforced hose) DL 14-60 - 600 mm (reinforced hose)

### Ordering Information

Model	Description
<b>DL 14-40</b>	Door loop, 400 mm, stainless steel
<b>DL 14-40 W</b>	Door loop, 400 mm, white
<b>DL 14-40 B</b>	Door loop, 400 mm, brown
<b>DL 14-60</b>	Door loop, 600 mm, stainless steel
<b>DL 14-60 W</b>	Door loop, 600 mm, white
<b>DL 14-60 B</b>	Door loop, 600 mm, brown

## DL H14 Mounting plate/end caps for door loop



The DL H14 is a mounting plate/ end caps with locking grooves, which secures the stainless steel flexi-tube and provides a safe installation. Delivered complete with screws.

### Technical Data

Dimensions	36 x 36 x 17.7 mm
Colour	White

### Ordering Information

Model	Description
<b>DL H14</b>	Mounting plate/end caps for cable loop, white

### DL 6 Door loop



The DL 6 is a door loop with a coiled cable, which has modular connectors on both ends of the loop to facilitate installation. The junction boxes included have screw terminals for a secure and discreet installation.

#### Technical Data

Tamper protection	Yes
Connection	Screw Terminals
Housing colour	ABS plastic, White
Dimensions junction box (L x W x H)	91 x 31 x 23 mm
Length coiled cable	45 cm – 150 cm (approx.)

#### Ordering Information

Model	Description
DL 6	Door loop with junction boxes

### DL S8 Coiled cord door loop



DL S8 coiled cord door loop with 8 leads and RJ-45 connector in both ends.

The door loop is designed for sliding doors, gates, overhead doors where an extendable cable is needed. DL S8 are made of PUR material (cable track cables are particularly for continuously flexible use), this makes the door loop more elastic and resistant against sunlight, chemicals, etc. The door loop is available in two sizes, 100 cm and 250 cm (extended length).

DL S8 can be used together with JB RJ45.

#### Technical Data

Connection	RJ 45
Cable	PUR, White
Length coiled cable	100 cm, 250cm (approx.)

#### Ordering Information

Model	Description
DL S8-100	Coiled cord door loop, RJ-45, 100cm
DL S8-250	Coiled cord door loop, RJ-45, 250cm

## DL 50 Door loop with metal housing



The DL 50 door loop with metal flexi-tube and housing for enhanced security is used to simplify and protect transmission of signals with a cable from windows and doors to the frame.

It comes complete with 2 junction boxes in metal with opening and pry off protection and a stainless steel flexi-tube. The stainless steel flexi-tube is available in 2 lengths – 400 mm and 600 mm.

The cable is protected against the sharp edges of the flexi-tube at each end with a plastic conduit that allows a maximum cable diameter of 4 mm. The flexi-tube is secured with locking grooves in the base of the box for a safe connection. Each junction box has a 10-screw terminal with wire protection, 2 of which are specified for the tamper switch.

If other lengths of the stainless steel flexi-tube are required the MC T2, MC T4 or MC T7 are suitable.

### Technical Data

Tamper protection	Opening and pry off
Connection	10 screw terminals
Housing material, Colour	Metal, Grey
Dimensions (L x W x H) mm	86 x 41 x 23
Outside diameter	8 mm
Inside diameter	6 mm
Max cable diameter	4 mm
Length	DL 50-40 - 400 mm (reinforced flexi-tube) DL 50-60 - 600 mm (reinforced flexi-tube)

### Ordering Information

Model	Description
DL 50-40	Include 400 mm stainless steel flexi-tube
DL 50-60	Include 600 mm stainless steel flexi-tube

## MC T Stainless steel armoured flexi-tube cable protection



Flexible and durable armoured flexi-tube cable protection in stainless steel. Suitable for protection of cables in exposed environments. Plastic conduit in each end of the steel tubing protect cables from wear or breakage. Outside diameter of 8.0 mm and inner diameter of 6.0 mm. Maximum cable diameter of 4.0 mm. The armoured flexi-tube cable protection is compatible with the DL H8 mounting plate/end caps and the DL 50 door loop as well as the JB 50 junction box.

### Technical Data

Outside diameter	8.0 mm
Inner diameter	6.0 mm
Max cable diameter	4.0 mm
Length	MC T2 0.5 m
	MC T4 1.0 m
	MC T7 2.0 m

### Ordering Information

Model	Description
<b>MC T2</b>	Stainless steel armoured flexi-tube 0.5 m
<b>MC T4</b>	Stainless steel armoured flexi-tube 1.0 m
<b>MC T7</b>	Stainless steel armoured flexi-tube 2.0 m
<b>DL H8</b>	Mounting plate/end caps 29.5 x 29.5 x 10 mm

## MC 14 T Stainless steel armoured flexi-tube cable protection



Flexible and durable armoured flexi-tube cable protection in stainless steel. Suitable for protection of cables in exposed environments. Plastic conduit in each end of the steel tubing protect cables from wear or breakage. Outside diameter of 14.0 mm and inner diameter of 10.5 mm. Maximum cable diameter of 8.8 mm. The armoured flexi-tube cable protection is compatible with the DL H14 mounting plate/end caps and corresponds to the metal tubing in the DL 14 cable loop.

### Technical Data

Outside diameter	14.0 mm
Inner diameter	10.5 mm
Max cable diameter	8.8 mm
Length	MC 14 T2 0.5 m
	MC 14 T4 1.0 m
	MC 14 T7 2.0 m

### Ordering Information

Model	Description
<b>MC 14 T2</b>	Stainless steel armoured flexi-tube 0.5 m
<b>MC 14 T4</b>	Stainless steel armoured flexi-tube 1.0 m
<b>MC 14 T7</b>	Stainless steel armoured flexi-tube 2.0 m
<b>DL H14</b>	Mounting plate/end caps 35 x 35 x 16 mm

# RELAY CARDS / RELAY BOXES

ALARMTECH has developed a series of relay cards / relay boxes that suit most types of low voltage and security installations (intruder alarm, access control, fire alarm etc.)

All cards and boxes are developed to suit both 12V and 24V (9-30 VDC) systems.

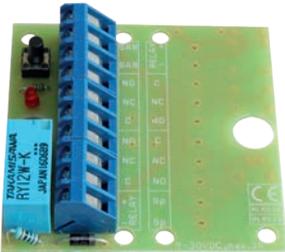
The RC 1 and RC 2 have an alternating switch function while the others have a dual alternating switch function.

RC 4 supports both AC- and DC-power supply and has a 2A relay.

The smaller cards (RC 1, RC 2, RC 3 and RC 4) are supplied with self-adhesive pads for easy installation and the transistor control of the relay means a very low control signal is required. All cards have appropriate screw terminals with wire protection.

Simple and discreet installation has been taken into consideration during relay box development and they are ready for attachment of a 10 x 20 mm cable trunking.

### RC 010 Relay card



The RC 010 is a relay card with a dual (2x) alternating (NC / NO) function. Connection is provided via screw terminal with wire protection. Active relay is indicated by LED. The card also has an anti-tamper switch to protect against unauthorised opening if the card is installed, for example, in a JB 200 box.

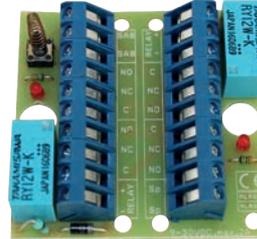
#### Technical data

Relay output	2 x NC/NO
Supply voltage	9-30 VDC
Current consumption	14 mA at 12 VDC / 33 mA at 28 VDC
Contact rating	48 VDC / 1 A / 48 VA
Tamper protection	Yes, 48 VDC / 50mA
Connection	Screw terminals
Operating temperature range	-40 to +70°C
Dimensions (L x W x H) mm	58 x 58 x 14

#### Ordering Information

Model	Description
<b>RC 010</b>	Relay card 9 – 30 V, dual alternating, anti-tamper switch

### RC 020 Relay card



The RC 020 is a relay card with two relays and dual (2x) alternating (NC/NO) functions. Connection is provided via screw terminal with wire protection. Active relays are indicated by LED. The card also has an anti-tamper switch to protect against unauthorised opening if the card is installed, for example, in a JB 200 box.

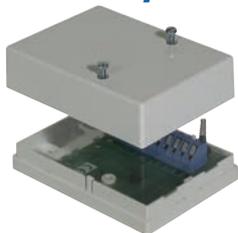
#### Technical data

Relay output	2 x 2 x NC/NO
Supply voltage	9-30 VDC
Current consumption	2 x 16 mA at 12 VDC / 38mA at 28 VDC
Contact rating	48 VDC / 1 A / 48 VA
Tamper protection	Yes, 48 VDC / 50mA
Connection	Screw terminals
Operating temperature range	-40 to +70°C
Dimensions (L x W x H) mm	58 x 58 x 14

#### Ordering Information

Model	Description
<b>RC 020</b>	Relay card 9 – 30 V, two relays, dual alternating, anti-tamper switch

## RB 010 Relay box



The RB 010 has a relay card with a dual (2x) alternating (NC / NO) function. Connection is provided via screw terminal with wire protection. Active relay is indicated by LED. The box is equipped with an anti-tamper switch to protect against unauthorised opening.

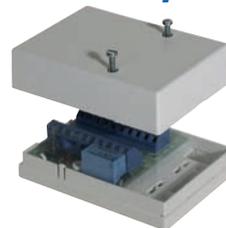
### Technical data

Relay output	2 x NC/NO
Supply voltage	9-30 VDC
Current consumption	16 mA at 12 VDC / 38 mA at 28 VDC
Contact rating	48 VDC / 1 A / 48VA
Tamper protection	Yes, 48 VDC / 50mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Dimensions (L x W x H) mm	90 x 66 x 35

### Ordering Information

Model	Description
<b>RB 010</b>	Relay box 9 – 30 V, dual alternating, anti-tamper switch

## RB 020 Relay box



The RB 020 has a relay card with two relays and dual (2x) alternating (NC/NO) functions. Connection is provided via screw terminal with wire protection. Active relays are indicated by LED. The box is equipped with an anti-tamper switch to protect against unauthorised opening.

### Technical data

Relay output	2 x 2 x NC/NO
Supply voltage	9-30 VDC
Current consumption	2 x 16 mA at 12 VDC / 38mA at 28 VDC
Contact rating	48 VDC / 1 A / 48 VA
Tamper protection	Yes, 48 VDC / 48mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-40 to +70°C
Dimensions(L x W x H) mm	90 x 66 x 35

### Ordering Information

Model	Description
<b>RB 020</b>	Relay box 9 – 30 V, two relays, dual alternating, anti-tamper switch

### RC 1 Relay card



The RC 1 is a very compact and universal relay card with alternating (NC/ NO) relay function. Connection of the relay is provided via screw terminal with wire protection. Control signal and supply is connected via 15 cm cable. Transistor control of the relay means a very low control signal is required (1 mA). An activated relay is indicated via a LED. On the back of the device there is a self-adhesive pad for ease of installation.

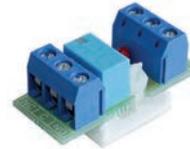
#### Technical data

Relay output	NC/NO
Supply voltage	9-30 VDC
Current consumption	16 mA at 12 VDC / 20 mA at 30 VDC
Contact rating	30 VDC / 1 A / 30 VA
Connection	Cable / Screw terminals
Operating temperature range	-20 to +50°C
Dimensions(L x W x H) mm	37 x 16 x 13

#### Ordering Information

Model	Description
RC 1	Alternating relay card 9 – 30 V

### RC 2 Relay card



The RC 2 is a very compact and universal relay card with alternating (NC/NO) relay. Connection is provided via screw terminal with wire protection. Transistor control of the relay means a very low control signal is required (1 mA). An activated relay is indicated via a LED.

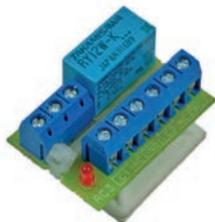
#### Technical data

Relay output	NC/NO
Supply voltage	9-30 VDC
Current consumption	16 mA at 12 VDC / 20 mA at 30 VDC
Contact rating	30 VDC / 1 A / 30 VA
Connection	Screw terminals
Operating temperature range	-20 to +50°C
Dimensions(L x W x H) mm	37 x 16 x 13

#### Ordering Information

Model	Description
RC 2	Alternating relay card 9 – 30 V

## RC 3 Relay card



The RC 3 is a very compact and universal relay card with dual alternating (NC / NO) relay function. Connection is provided via screw terminal with wire protection. Transistor control of the relay means a very low control signal is required (1 mA, 12V). An activated relay is indicated via a LED.

### Technical data

Relay output	NC/NO
Supply voltage	9-30 VDC
Current consumption	16 mA at 12 VDC / 20 mA at 30 VDC
Contact rating	30 VDC / 1 A / 30 VA
Connection	Screw terminals
Operating temperature range	-20 to +50°C
Dimensions(L x W x H) mm	38 x 27 x 15

### Ordering Information

Model	Description
RC 3	Relay card 9 – 30 V, dual alternating

## RC 4 Relay card for AC or DC supply



The RC 4 is a compact and universal relay card for AC or DC supply with dual alternating (NC / NO) relay function 2A. Connection is provided via screw terminal with self-lifting clamp. Transistor control of the relay means a very low control signal is required (1 mA, 12V). The card has a high impedance input for controlling the relay. An activated relay is indicated via a LED. Supplied with self-adhesive pad for easy installation.

### Technical data

Relay output	2 x NC/NO
Supply voltage	11-30 VDC or AC
Current consumption	16 mA at 12VDC / 22 mA at 30VDC
Contact rating	30 VDC / 2 A / 60 VA
Connection	Screw terminals with self-lifting clamp
Operating temperature range	-20 to +50°C
Dimensions (L x W x H) mm	50 x 26.5 x 16

### Ordering Information

Model	Description
RC 4	Relay card 10 – 30 V, dual alternating for AC or DC supply

## RC 230 High Voltage timer Relay



RC 230 enables control of a high voltage load up to 2000 VA with a magnetic contact or low voltage detector. It has a built-in programmable timer function for ON or OFF control. The time is programmed with a DIP-switch, from 0 s to 16 hours. The high voltage relay has a changeover function that can switch 250 V AC max 8 A. The relay circuit is protected by a 10 A fuse.

RC 230 is also equipped with a low voltage output 12 V/50 mA for supply to a detector. The relay of the detector can control the high voltage relay.

### Technical Data

Relay output	NC/NO
Supply voltage	90 – 250 VAC, 47 – 63 Hz (100 – 350 VDC)
Contact rating	2000 VA, 250 VAC, 8 A
Time control	Time is set with a 6 pin DIP-switch, from 0 s to 16 hours
Detector input	NC/NO, polarized to +12 V by 2.2 kohm
Detector supply output	+12 VDC, 50 mA max with current limiter
Fulfil safety norms	EN 60950-1
Fulfil EMC norms	EN 50130-4, EN 55022, EN 55024
Housing material, Colour	ABS plastic, White
Connection	Screw terminals with rising cage clamp
Operating temperature range	- 20 to +55°C
Dimensions (L x W x H) mm	90 x 66 x 35

### Ordering Information

Model	Description
RC 230	High voltage relay

# FIBRE OPTIC ALARMS

ALARMTECH's fibre optic alarm systems are developed to monitor office equipment, such as computers, screens, projectors and other types of accessible units.

The system consists of a control unit, which is connected to an optical fibre. The control unit sends a coded pulsed light through the fibre. The signal is received by the control unit and is compared with that sent out. Monitored devices are connected to the fibre via specially designed brackets or through existing vents or similar in the monitored device.

The control unit is connected to a 24-hour loop in the control panel and any attempt to remove a device or sabotage the optical fibre will generate an alarm.

The fibre allows the monitored device to be used in a normal way and the system is completely insensitive to electronic interference.

The optical fibre is soft and about 2 mm in diameter, which makes it easy to bend. Maximum length of the fibre is 40m, which allows many devices to be monitored from one control unit. Connection to the host system is achieved through relay output on the control unit.

## OP 100 Control unit, fibre optic alarm



The system consists of an interface unit, which is connected to an optical fibre. The control unit sends a coded pulsed light through the fibre. The signal is received by the control unit and is compared with that sent out. Monitored devices are connected to the fibre via specially designed brackets or through existing vents or similar in the monitored device. The control unit is connected to a 24-hour loop in the control panel and any attempt to remove a device or sabotage the optical fibre will generate an alarm.

The fibre allows the monitored device to be used in a normal way and the system is completely insensitive to electronic interference. The optical fibre is soft and about 2 mm in diameter, which makes it easy to bend. Maximum length of the fibre is 40m, which allows many devices to be monitored from one control unit.

The control unit has a relay output (NC) that can be programmed to latch or auto reset mode. The relay can be reset remotely via an input in the latch function. The LED indicator can follow the relay or solely function in day-mode.

### Technical Data

Supply voltage	8 - 15 VDC
Current consumption	5mA (8 mA in alarm state)
Alarm output	Relay, NC
Contact rating	48 VDC / 100 mA
Connection	Screw terminals
Housing material, Colour	ABS plastic, White
Operating temperature range	-10 to +70°C
Housing protection class	IP 31
Dimensions (L x W x H) mm	90 x 66 x 30

### Ordering Information

Model	Description
OP 100	Interface unit, fibre optic alarm

## OP 101 Stainless steel anchor, fibre optic alarm



Mounting sleeve in stainless steel for optical fibre to a fibre optic alarm

### Ordering Information

Model	Description
OP 101	Stainless steel anchor, fibre optic alarm

## OP 102 Optical fibre, fibre optic alarm



Optical fibre for fibre optic alarm. Per metre.

### Ordering Information

Model	Description
OP 102	Optical fibre for fibre optic alarm, per metre

## OP 103 Splice sleeve, fibre optic alarm



Splice sleeve in stainless steel for optical fibre to a fibre optic alarm

### Ordering Information

Model	Description
OP 103	Stainless steel extension sleeve for fibre optic alarm

### OP 104 Fibre cutter, fibre optic alarm



Fibre cutter for fibre optic alarm.

#### Ordering Information

Model	Description
OP 104	Fibre cutter for fibre optic alarm

### OP 105 Fibre optic alarm kit



Fibre optic alarm kit including control unit OP 100, 2 x mounting sleeves OP 101, 5m optical fibre OP 102, splice sleeve OP 103 and fibre cutter OP 104.

#### Ordering Information

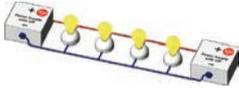
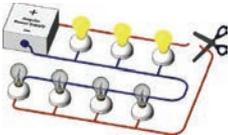
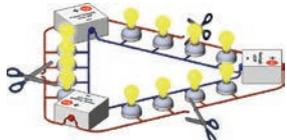
Model	Description
OP 105	Fibre optic alarm kit

# POWER SUPPLY UNITS

ALARMTECH has developed a series of power supply units with ViP (Voltage in Parallel) function for intrusion detection and access control systems.

The units are available in both 12 VDC and 24 VDC versions and all are equipped with LED indication .

A power supply unit with ViP feature can be connected in parallel to provide redundancy (higher security) and reduce the voltage drop in the cables.

	Regular PS	PS with 
<b>Voltage drop problem?</b>	<p>Additional PS requires change of wiring</p> 	<p>Easy-to-implement solution of voltage drop problem</p> <ul style="list-style-type: none"> <li>Just Add PS with Vip to counteract voltage drop</li> <li>No changes in wiring</li> </ul> 
<b>Need more power?</b>	<p>Replacement with bigger PS</p> 	<p>Easy extension of power capacity – just add PS with ViP with suitable current capacity</p> 
<b>Need more power?</b>	<p>The system is extremely sensitive to a fault</p> 	<p>User defined reliability level: Possible failure or attack – system resistant against attacks, all receivers supplied</p> 

### PSV 1215-18 Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 12 VDC 1,5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for one 12 V/18 Ah accumulator in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Supply voltage	230 VAC
Output voltage	13,8 VDC
Output current	1,5 A
Accumulator	Space for 12 V/18 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	300 x 230 x 100

#### Ordering Information

Model	Description
<b>PSV 1215-18</b>	Power supply unit, ViP, 12 V 1,5 A

### PSV 1225-18 Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 12 VDC 2,5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for one 12 V/18 Ah accumulator in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Supply voltage	230 VAC
Output voltage	13,8 VDC
Output current	2,5 A
Accumulator	Space for 12 V/18 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	300 x 230 x 100

#### Ordering Information

Model	Description
<b>PSV 1225-18</b>	Power supply unit, ViP, 12 V 2,5 A

## PSV 2415-7 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC/ 1,5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V/7Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007+A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	max 1,5 A
Accumulator	Space for two 12 V/7Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	325 x 276 x 90

### Ordering Information

Model	Description
<b>PSV 2415-7</b>	Power supply unit, ViP, 24 V 1,5 A

## PSV 2415-12 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC/ 1,5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V/12Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	max 1,5 A
Accumulator	Space for two 12 V/12Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	345 x 325 x 130

### Ordering Information

Model	Description
<b>PSV 2415-12</b>	Power supply unit, ViP, 24 V 1,5 A

### PSV 2435-12 Switched Power supply unit VIP



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC/3.5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V/12Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27.6 VDC
Output current	max 3,5 A
Accumulator	Space for two 12 V/12Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	345 x 325 x 130

#### Ordering Information

Model	Description
<b>PSV 2435-12</b>	Power supply unit, ViP, 24 V 3,5 A

### PSV 2435-40 Switched Power supply unit VIP



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 3.5 A.

Power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V /40Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27.6 VDC
Output current	max 3,5 A
Accumulator	Space for two 12 V/40Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	440 x 425 x 200

#### Ordering Information

Model	Description
<b>PSV 2435-40</b>	Power supply unit, ViP, 24 V 3.5 A

## PSV 2465-12 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 6.5 A.

Power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V/12Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated with LED and activates separate outputs with relays.

### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27.6 VDC
Output current	max 6,5 A
Accumulator	Space for two 12 V/12Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	345 x 325 x 130

### Ordering Information

Model	Description
<b>PSV 2465-12</b>	Power supply unit, ViP, 24 V 6,5 A

## PSV 2465-40 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 6,5 A.

Power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12V/40Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated with LED and activates separate outputs with relays.

### Technical Data

Approvals	EN50131-6:2008 + A1:2014 Grade 3, EN61000-6-1:2007, EN 61000-6-3:2007 +A1, EN60950-1:2006+A11+A1+A12+A2, SBSC 16-16, Class 2/3, F&P, FG
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	max 6,5 A
Accumulator	Space for two 12 V/40Ah (not included)
Tamper protection	Opening and pry off switches
Housing and colour	Metal painted white
Dimensions (L x W x H) mm	440 x 425 x 200

### Ordering Information

Model	Description
<b>PSV 2465-40</b>	Power supply unit, ViP, 24 V 6,5 A

### PSV 24100-12 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 10 A. Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12 V/12 Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	10 A
Accumulator	Space for two 12 V/12 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	470 x 370 x 140

#### Ordering Information

Model	Description
<b>PSV 24100-12</b>	Power supply unit, ViP, 24 V 10 A

### PSV 24100-40 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 10 A. Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12 V/40 Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

#### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	10 A
Accumulator	Space for two 12 V/40 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	440 x 425 x 200

#### Ordering Information

Model	Description
<b>PSV 24100-40</b>	Power supply unit, ViP, 24 V 10 A

## PSV 24130-12 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 13 A. Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12 V/12 Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	13 A
Accumulator	Space for two 12 V/12 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	470 x 370 x 140

### Ordering Information

Model	Description
<b>PSV 24130-12</b>	Power supply unit, ViP, 24 V 13 A

## PSV 24130-40 Switched Power supply unit



Power supply unit with ViP (Voltage in Parallel) function, 24 VDC 13 A. Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. Space is provided for two 12 V/40 Ah accumulators in the metal box which also has opening and pry-off switches. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays.

### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	13 A
Accumulator	Space for two 12 V/40 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	440 x 425 x 200

### Ordering Information

Model	Description
<b>PSV 24130-40</b>	Power supply unit, ViP, 24 V 13 A

## PSV 2465-12-FC Power Supply Unit with Fuse Card

Power supply unit as a module mounted on DIN-rail with ViP (Voltage in Parallel) function, 24 VDC 6.5 A.

Power supply unit with ViP function can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated via LED and activates separate outputs with relays. Space is provided for two 12 V/12 Ah accumulators.

The fuse card designed for 24 V systems with 6 double fuses, one in minus and one in plus. Each fuse has a LED indication if it is broken and a relay output for fuse failure. It also has a ground failure circuit to ensure that any connection of the plus or minus is not accidentally connected to ground. The sensitivity is set by a potentiometer for each minus and plus. Ground failure is signalled individually with a LED and a relay output.

The cabinet provides space for your own equipment e.g. access control, alarm, or fire protection systems that can be easily mounted on a DIN rail in the cabinet. A unique mounting plate with punched holes attaches to the DIN rail, which allows for easy mounting of cards/electronics.

This is done with the enclosed plastic spacers.

For additional security the cabinet has opening and pry-off switches.



### Technical Data

Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	6,5 A
Accumulator	Space for two 12 V/12 Ah (not included)
Tamper protection	Opening and pry off switches
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	360 x 470 x 130

### Ordering Information

Model	Description
<b>PSV 2465-12-FC</b>	Power supply, ViP, 24 V 6,5 A, fuse cards

## MFC-DIN



MFC-DIN is a mounting plate for the fuse card PSV 24FC-6.

This mounting plate will allow mounting on DIN rail. Packaging includes DIN adaptors and plastic spacers. Fits in Battery box 122-12 and 401-40.

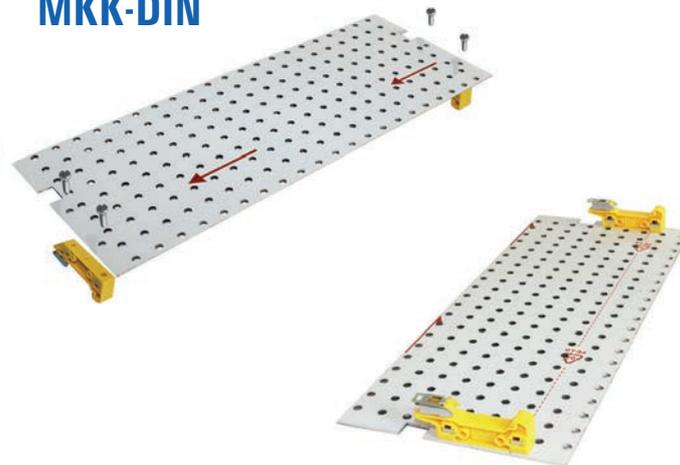
### Technical Data

Dimensions (L x W x H) mm	140x110x1
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### Ordering Information

Model	Description
MFC-DIN	Mounting plate for the fuse card PSV 24FC-6

## MKK-DIN



MKK-DIN is a mounting plate for customized products.

This mounting plate will allow customized products to be mounted on DIN rail. Packaging includes DIN adaptors and plastic spacers. Fits in Battery box 122-12 and 401-40.

### Technical Data

Dimensions (L x W x H) mm	330x130x1
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### Ordering Information

Model	Description
MKK-DIN	Mounting plate for customized products

### Battery box 122-12



Battery box equipped with 2 DIN-rails that can be used for extra batteries or external cards. Space for two 12 V 12 Ah accumulators. Tamper protection against opening and pry-off is standard.

#### Technical data

Accumulator	Space for two 12 V/12 Ah (not included)
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	360 x 470 x 130

#### Ordering Information

Model	Description
<b>Battery box 122-12</b>	Battery box

### Battery box 401-40



Battery box equipped with 1 DIN-rail that can be used for extra batteries or external cards. Space for two 12 V 40 Ah accumulators. Tamper protection against opening and pry-off is standard.

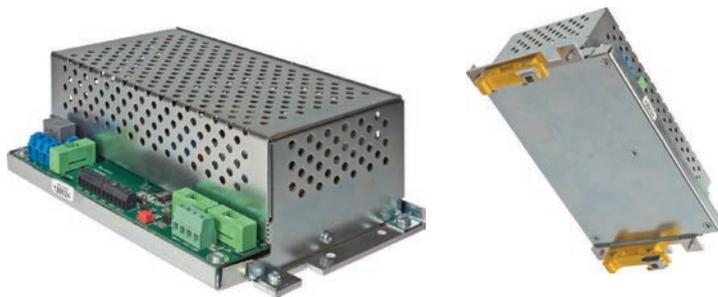
#### Technical Data

Accumulator	Space for two 12 V/40 Ah (not included)
Housing material, Colour	Metal, White
Dimensions (L x W x H) mm	440 x 425 x 200

#### Ordering Information

Model	Description
<b>Battery box 401-40</b>	Battery box

## PSV 2415-M Switched Power supply unit module for DIN-rail mounting



Power supply unit as a module for DIN-rail mounting with ViP (Voltage in Parallel) function, 24 VDC 1,5 A.

Power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated with LED and activates separate outputs with relays.

Developed to be mounted on a DIN rail for industrial purposes. Mounting on a DIN rail is achieved with the PSV-DIN mounting kit for a safe and simple installation.

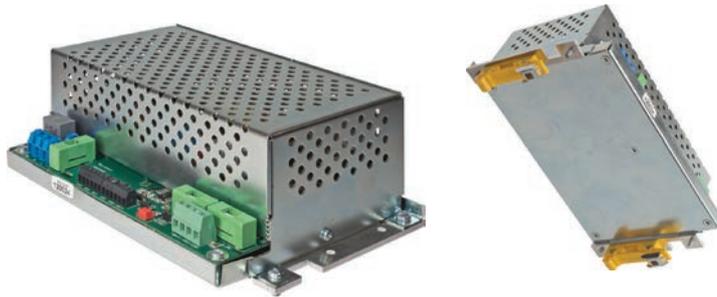
### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	1,5 A
Housing	Zinc plated steel
Dimensions (L x W x H) mm	210 x 120 x 70

### Ordering Information

Typ	Description
<b>PSV 2415-M</b>	Unit for DIN-rail mounting, ViP, 24 V 1,5 A

## PSV 2435-M Switched Power supply unit module for DIN-rail mounting



Power supply unit as a module for DIN-rail mounting with ViP (Voltage in Parallel) function, 24 VDC 3,5 A.

Power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated with LED and activates separate outputs with relays.

Developed to be mounted on a DIN rail for industrial purposes. Mounting on a DIN rail is achieved with the PSV-DIN mounting kit for a safe and simple installation.

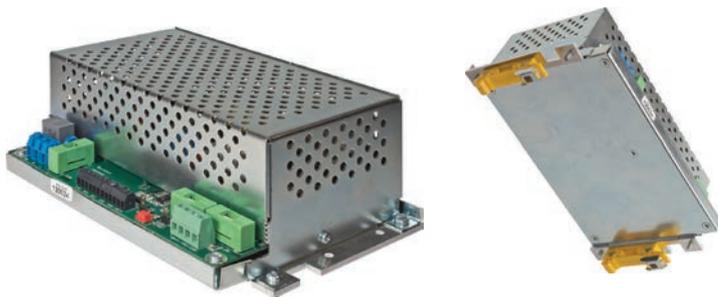
### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	max 3,5 A
Housing	Zinc plated steel
Dimensions (L x W x H) mm	210 x 120 x 70

### Ordering Information

Model	Description
<b>PSV 2435-M</b>	Unit for DIN-rail mounting, ViP, 24 V 3,5 A

## PSV 2465-M Switched Power supply unit module for DIN-rail mounting



Power supply unit as a module for DIN-rail mounting with ViP (Voltage in Parallel) function, 24 VDC 6.5 A.

The power supply unit with ViP function that can be connected in parallel to provide more power and redundancy and compensate for voltage drop in the cables. The unit is protected against short-circuiting and overload. Mains failure, low output voltage, battery and fuse failure is indicated with LED and activates separate outputs with relays.

Developed to be mounted on a DIN rail for industrial purposes. Mounting on a DIN rail is achieved with the PSV-DIN mounting kit for a safe and simple installation.

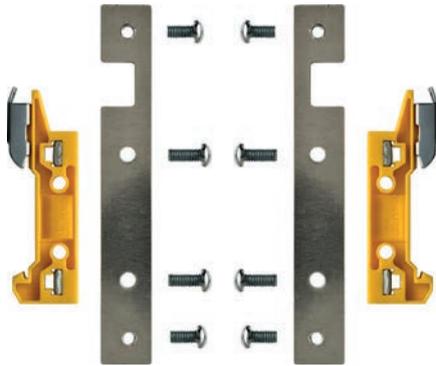
### Technical Data

Approvals	EN 61000-6-1:2007, EN 61000-6-3:2007 +A1, EN 60950-1:2006+A11+A1+A12+A2
Supply voltage	230 VAC
Output voltage	27,6 VDC
Output current	max 6,5 A
Housing	Zinc plated steel
Dimensions (L x W x H) mm	210 x 120 x 70

### Ordering Information

Typ	Description
<b>PSV 2465-M</b>	Unit for DIN-rail mounting, ViP, 24 V 6.5 A

## PSV-DIN Mounting kit for DIN rail mounting



PSV-DIN is a mounting kit for mounting power supply modules PSV 2415-M, PSV 2435-M and PSV 2465-M on a 35mm DIN rail in, for example, server cabinets or for industrial purposes.

### Ordering Information

Model	Description
PSV DIN	Kit for mounting PSV 2415-M, PSV 2435-M and PSV 2465-M on a 35 mm DIN rail

## PSV 24FC-6 Fuse card



The fuse card consists of 6 double fuses, one at each plus and minus. Each fuse has a circuit that senses if the fuse is intact or broken. A blown fuse is indicated by a red light emitting diode (LED). The card has an output relay NC for signalling fuse-failure. To easily test if a fuse is intact or broken there is an open fuse holder in the middle of the card where a fuse can be installed and tested. Is the fuse OK it is indicated by a green LED. To ensure that no ground currents disturb the installation, the fuse card has a ground failure circuit which detects if any of the polarities accidentally is connected to the protective earth (PE). Especially, this is important in large installations. An earth fault leads to creep currents in the earth that can interfere with detectors and control panel sections and give false alarms. The ground failure circuit detects whether there is a current of a certain size between terminal (+) or (-) and ground (PE). The sensitivity of each pole is set by a potentiometer on the board. A ground fault is indicated by a red LED for each pole and an output relay NC is signalling ground faults. Potentiometer turned most left will disable ground fault monitor for given channel. Enabled channel PE ground fault monitor is signalled by short blinks of LEDs GF+ and GF-. There is also a circuit which lights a green LED when voltage input to the board is present.

### Tekniska data

Supply voltage	8-30 V DC
Fuses	6 double fuses
Max current in each channel	6A
Maximum total current output on card	13 A
Ground failure	Relay NC
Fuse failure	Relay NC
Dimensions (L x W x H) mm	PCB 100x110 mm

### Ordering Information

Model	Description
PSV 24FC-6	Fuse card for 8-30 VDC systems, 6 double fused channels

# FILING CABINETS

Alarmtech has developed and produced a document and drawing cabinet in order to store service documents and orientation drawings in close vicinity to the control panel according to rules 130:8 specified by SSF, the Swedish Theft Prevention Association (Svenska Stöldsskyddsföreningen). Effective from April 1, 2013, a new standard was introduced that all classified alarm systems shall have an accompanying document cabinet (SSF 130:8).

The filing cabinet comes in white-lacquered 1.5mm steel plate with clip to contain documents inside the cabinet. Comes with punched hole for standard cylinder, complete with lock and keys. The filing cabinet can be screwed to a wall for a safe and secure installation.

## Docbox A4 Document and Filing Cabinet



Document and drawing filing cabinet for keeping of service drawings, orientation drawings and other documents in close vicinity to the control panel according to SSF 130:8.

For drawings and documentation in A4 size.

The filing cabinet comes in white-lacquered 1.5mm steel plate with a clip to hold documents inside the cabinet.

The back of the cabinet has a frame of approximately 30 mm with pre-drilled 4 mm holes so the cabinet can be screwed to a wall for safe and secure installation.

The cabinet comes complete with lock and keys.

### Technical Data

Housing material, Colour	Steel plate box, White
Lock	Yes
Dimensions (L x W x H) mm	370 x 290 x 85 mm

### Ordering Information

Model	Description
<b>Docbox A4</b>	Steel plate filing cabinet for A4-sized drawings/documents

## Docbox A4-CL Document and Filing Cabinet with Combination Lock



Document and drawing filing cabinet for keeping of service drawings, orientation drawings and other documents in close vicinity to the control panel according to SSF 130:8.

For drawings and documentation in A4 size.

The filing cabinet comes in white-lacquered 1.5 mm steel plate with a clip to hold documents inside the cabinet.

The back of the cabinet has a frame of approximately 30 mm with pre-drilled 4 mm holes so the cabinet can be screwed to a wall for safe and secure installation.

The cabinet comes with a mechanical 3-digit combination lock.

### Technical Data

Housing material, Colour	Steel plate box, White
Lock	Yes. Combination lock
Dimensions (L x W x H) mm	370 x 290 x 85 mm

### Ordering Information

Model	Description
<b>Docbox A4-CL</b>	Steel plate filing cabinet for A4-sized drawings/documents, combination lock

## Docbox A4-I Document and Filing Cabinet without lock



Document and drawing filing cabinet for keeping of service drawings, orientation drawings and other documents in close vicinity to the control panel according to SSF 130.8.

For drawings and documentation in A4 size.

The filing cabinet comes in white-lacquered 1.5 mm steel plate with a clip to hold documents inside the cabinet.

The back of the cabinet has a frame of approximately 30 mm with pre-drilled 4 mm holes so the cabinet can be screwed to a wall for safe and secure installation.

The cabinet does not come with a lock. The hole pattern allows for fitting a cam lock /industry cylinder/.

### Technical Data

Housing material, Colour	Steel plate box, White
Lock	No
Dimensions (L x W x H) mm	370 x 290 x 85 mm

### Ordering Information

Model	Description
<b>Docbox A4-I</b>	Steel plate filing cabinet for A4-sized drawings/documents

## Docbox A4-F Document and Filing Cabinet with a firebrigade type lock



Document and drawing filing cabinet for keeping of service drawings, orientation drawings and other documents in close vicinity to the control panel according to SSF 130.8.

For drawings and documentation in A4 size.

The filing cabinet comes in white-lacquered 1.5 mm steel plate with a clip to hold documents inside the cabinet.

The back of the cabinet has a frame of approximately 30 mm with pre-drilled 4 mm holes so the cabinet can be screwed to a wall for safe and secure installation.

The cabinet comes with a firebrigade type lock.

### Technical Data

Housing material, Colour	Steel plate box, White
Lock	Yes. Combination lock
Dimensions (L x W x H) mm	370 x 290 x 85 mm

### Ordering Information

Model	Description
<b>Docbox A4-F</b>	Steel plate filing cabinet for A4-sized drawings/documents, Firebrigade lock

# ALARM MONITORING

ALARMTECH has developed monitor modules that can be used as an indicator panel for i.e. doorstatus or as a relay module for converting Open Collector (OC) outputs to relay outputs with an alternating function.

The units have 12 independant, parallel inputs with pull-up resistors and separate relay outputs for each input.

Every channel is separately indicated with a LED on the front panel.

The units also have a summary alarm function, summarizing the alarms for all 12 inputs and optionally activates the built-in buzzer.

### RM 12 Indicator-/relay module



The RM 12 is a monitoring module that can be used as an annunciator to monitor, for example, door status or as a relay module that converts OC outputs to relay outputs with an alternating function.

The relay module RM 12 consists of 12 independent, parallel inputs with pull-up resistor and relay outputs (alternating NO/NC) that follow input status. The inputs can be driven directly from OC outputs with extra resistors or accessories. The output relays follow input status and the relay is active when input is connected to earth. Each channel is separately indicated via a LED on the front panel.

The unit also has a summary alarm function for all 12 inputs. The summary alarm is indicated via a separate LED indicator and on a separate relay output (alternating NO/NC).

The unit has two jumper blocks with the option of choosing whether the LED and summary alarm are latched until reset or self-reset mode. There is also the option of choosing if the buzzer is active when the summary alarm relay is activated or whether the buzzer should remain disconnected.

#### Technical Data

Relay output	12 +1, NC/NO
Inputs	12 with internal pull-up
Supply voltage	10-15 VDC
Current consumption	Approx. 3.5mA (max 60 mA when all relays, LEDs & buzzer active)
Contact rating	30 VDC / 1 A / 30 VA
Housing material, Colour	Plastic with metal front
Dimensions (L x W x H) mm	180 x 110 x 43

#### Ordering Information

Model	Description
RM 12	Indicator-/relay module 12 V

## RM 12-24 Alarm/annunciator panel

RM 12-24 is an alarm/annunciator module for 10-30 VDC. It can be used to indicate, for example, door status, door locks, window status or personal attack alarms or monitoring of 12 loops.

It can also be used as a relay module that converts Open Collector (OC) outputs to relay outputs with an alternating function.

RM 12-24 consists of 12 independent, parallel channels with input pulled-up by internal resistor and output relay following the state of the input. Pulled-up inputs can be directly driven by detector loops w/o need of additional resistors and access to polarizing voltage. The output relay always follows the state of channel input – the relay is energized when the input loop of a channel is violated. The state of every channel is displayed in the front panel – a LED is lit when the input loop is violated. RM 12-24 is programmed to work with input loops configured as EOL/NC-NO with EOL resistor 2.2 kohm.

The unit also has a summary alarm function for all 12 inputs. The summary alarm is indicated via a separate LED and on a separate relay output (alternating NO/NC).

The unit has two jumper blocks with the option of choosing whether the LED and summary alarm are latched until reset or self-reset mode. There is also the option of choosing if the buzzer is active when the summary alarm relay is activated or whether the buzzer should remain disconnected.



### Technical Data

Relay output	12 +1, (alternating NC/NO)
Inputs	12 balanced inputs (2.2K)
Supply voltage	7-30 VDC
Current consumption at 12 V/24 V	Min 17mA/11 mA, Max 232mA/121 mA
Internal pull-up resistor and pull-up voltage	2.2 kohm, 5 V
Configuration of input loop	EOL/NC-NO, EOL/NO, EOL/NC
Normal state of input loop	input loop resistance = 2.2 kohm +/- 20%
Violated state of input loop	input loop resistance < 2.2 kohm -20%, > 2.2 kohm +20%
Operating temperature range	-10°C to +55°C
Dimensions (L x W x H) mm	180 x 110 x 43

### Ordering Information

Model	Description
RM 12-24	Alarm/annunciator panel

