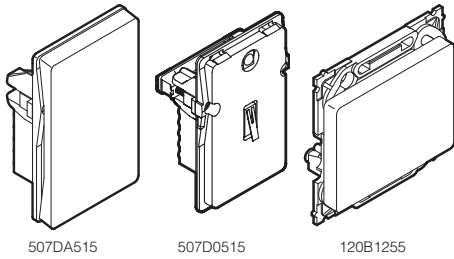


by Schneider Electric

# LK IHC Control® Alarm loop insert, LK FUGA®/OPUS® 66



A: 0=without cover, 5=grey, 6=white, 8=coalgrey

## For your safety

### **⚠ DANGER**

**Risk of fatal injury from electrical shock.**  
 Work on the mains voltage may only be performed by a skilled electrician. Observe the countryspecific regulations. Work on the mains voltage is necessary if, for example:

- You are mounting the device onto a flush-mounted box with 230 V cables or
- an existing switch/socket-outlet combination has to be dismantled.

## Application

The loop insert (type LK FUGA® or OPUS®) is an accessory for the IHC Control Alarm system.

The insert is designed for further looping of the following alarm connections:

- two magnetic contact sets with sabotage circuit
- a code keypad with sabotage circuit
- Nopovic Link-10 cables in the alarm installation in general
- combinations of the above.

The insert contains a sabotage switch that is activated when the cover is removed or replaced. The products can be installed in all FUGA and OPUS® sockets for bricking in, recessing or insertion from the front. In addition, they can be fitted in exterior FUGA or OPUS® bases.

If the products are fitted outside in OPUS® bases, it is very easy to circumvent the sabotage switch. Therefore, they should only be fitted in interior locations.

The fitter can use the breaker points to prepare the components of the products for various applications (see the "Design" section).

Typical applications include:

- Minimal combination: Connection of no more than two magnetic contact sets with sabotage circuits.
- Maximal combination: Looping two independent Nopovic 10 cables combined with the connection of two magnetic contact sets, including sabotage circuits.
- Middle combination: Looping two independent Nopovic 10 cables combined with the connection of no more than two magnetic contact sets, including sabotage circuits.

The installation procedures for these three applications are described below.

## Montage

One or more of the six breaker points – B1–B6 – can be broken by applying one of these methods:

- Drill a dia. 4 mm bit (figure 2.a) through the PCB without drilling through the plastic cover itself.
- Use a pozidrive size 1 bit (figure 2.b) to perform the perforation.
- Use a chamfer bit (figure 2.c) to penetrate the print island on the top side of the PCB.

## Design

The loop insert, which is built on a PCB (see the diagram in Figure 1) consists of the following:

N1–N10: Nopovic connections for clip terminals, with fitting bit. Looping and/or connection to magnetic contact sets.

F1–F6: Multi-core connection to screw terminal with flat-head screwdriver.

SI and SII: Sabotage circuit connection to clip terminals, with fitting bit.

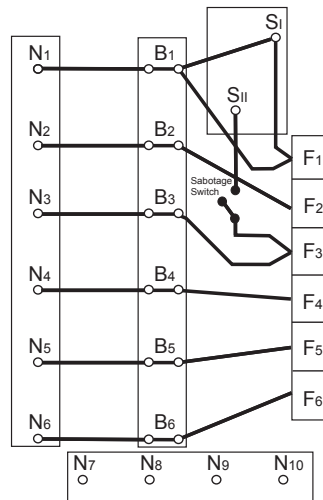


Figure 1: Diagram for FUGA loop insert (same principle as for OPUS®, but with a different layout)

B1–B6: Breaker points for configuration to suit various applications.

For the best penetration, use a stationary drill. However, if you are careful, you can certainly perform the perforation with a battery powered drill/screwdriver.

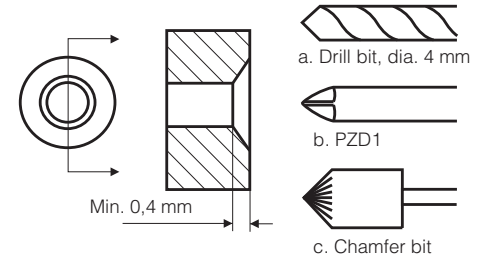


Figure 2: Principle for penetration

## Minimal combination

For wiring use a Nopovic 10 cable connected to two magnetic contact sets.

Montage procedure (see figure 3):

- Use single conductors to connect the Nopovic 10 to each of the sabotage terminals SI and SII (fitting bit) and single conductors to each of the magnetic contact circuit terminals, F4 and F6 (or N4 and N6) (fitting bit).
- Connect the magnetic contacts to F4 and F5 (first set) and F5 and F6 (second set).
- Connect the sabotage loops to F1 and F2 (first loop) and F2 and F3 (second loop).

Clip terminals N1, N2, N3, N5 and N7–N10 are not used in this combination.

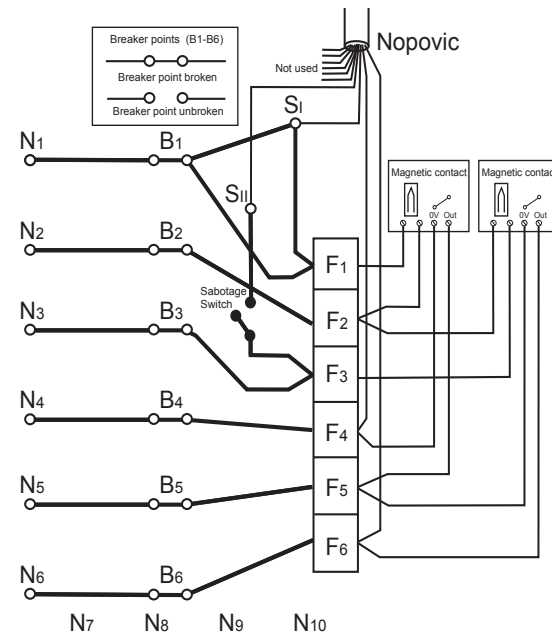


Figure 3: Diagram for application, minimal combination

## Maximal combination

For cable connection/relief, use:

Two separate Nopovic 10 cables and one Nopovic 10 connected to two sets of magnetic contacts.

Installation procedure (see Figure 4):

- Break all breaker points – B1–B6 (as illustrated in Figure 4).
- Use clip terminals N1–N10 to loop the two separate Nopovic 10 cables.
- Connect the Nopovic 10 cables – via single conductors – to each of the sabotage terminals SI and SII (fitting bit), with a conductor loosely connected to each of the magnetic contact circuit terminals.
- Connect the magnetic contacts to F4 and F5 (first set) and F5 and F6 (second set).
- Connect the sabotage loops to F1 and F2 (first loop) and F2 and F3 (second loop).
- Use the installed cable clamp to relieve all the cables.

### Middle combination

For cable connection/relief, use:

Two separate Nopovic 10 cables and one Nopovic 10 connected to two sets of magnetic contacts. The installation is the same as for 2. Maximal combination, the only difference being that not all 10 clip terminals are used.

- Break breaker points B2 and B5.
- Use clip terminals N2, N5 and N7–N10 to loop the two separate Nopovic 10 cables (fitting bit).
- Connect the Nopovic 10 cables – via single conductors – to each of the sabotage terminals SI and SII (fitting bit), with single conductors to each of the magnetic contact circuit terminals, N4 and N6 (fitting bit).
- Connect the magnetic contacts to F4 and F5 (first set) and F5 and F6 (second set). Connect the sabotage loops to F1 and F2 (first loop) and F2 and F3 (second loop).

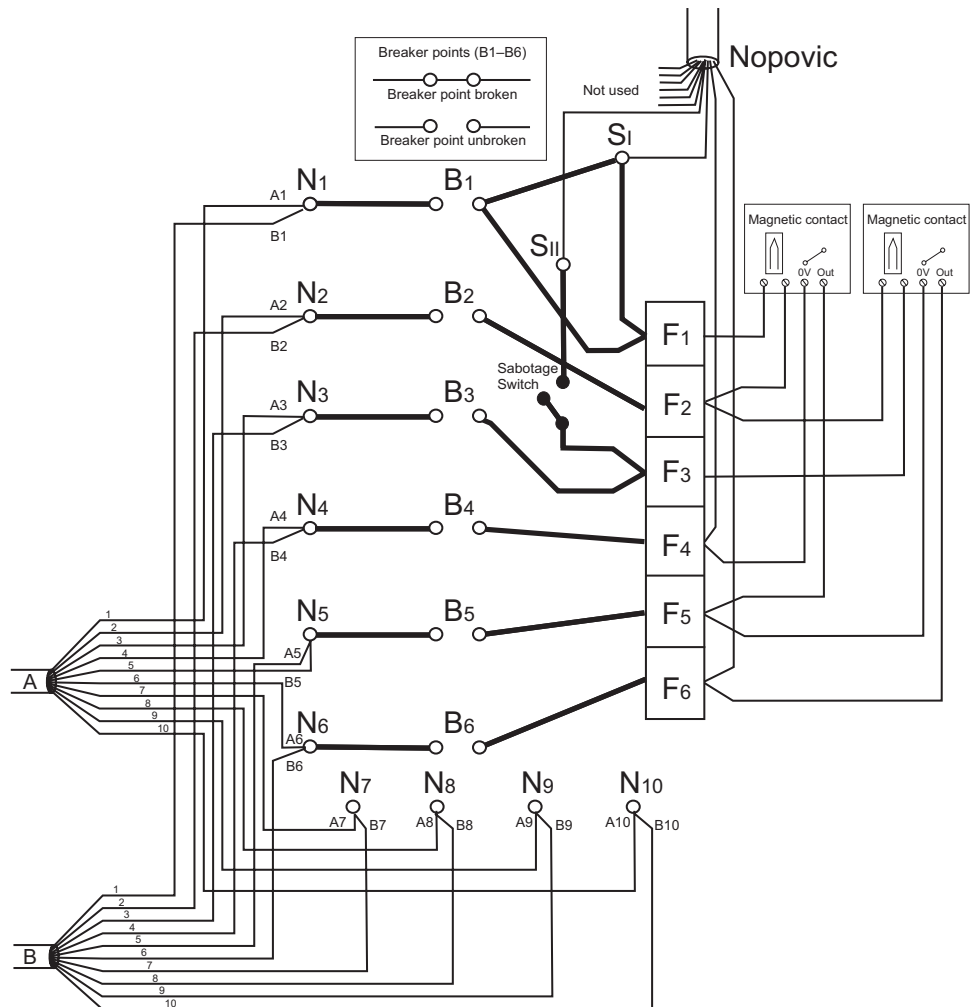


Figure 4: Diagram for application 2. Maximal combination

## Technical data

Protection rating	IP20
Max. current draw from a clip terminal to a screw terminal	3.0 A
Max. voltage drop from cable close to clip terminal to cable close to screw terminal	50 mV
Max. torque, hand	0.4 Nm
Max. torque, electric drill/screwdriver	0.3 Nm
Number of Nopovic clip terminals	10 for looping, 2 for sabotage circuit
Number of screw terminals	6 for connecting sabotage circuit and magnetic contact circuits
Number of breaker points	6 for breaking with a dia. 4 mm drill bit
Cable relief	Cable strips for max. 3 Nopovic 10 cables and 2 magnetic contact sets
Module size	LK FUGA®: 1½ M OPUS®66: 1 M

### Necessary accessory

For inserts without rockers you need to buy rockers before the unit will work.

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