

Loop detector card DB312

User manual, Edition 5



Technical specification

Dimensions (WxHxD)	30x74x22 mm
Temperature range	0 up to 50 °C
Inputs	2
Indications	2 LED's for loop status indication.
Fuses	EP103 panel should be protected with a fuse max T10A

Installation of induction loops for vehicle detection

General

Loops should be formed with RK 0,75-1,5 mm² cable, heat resistant to 90C degrees. Each loop should be laid with 2 or 3 turns depending on the loop circumference, 3 turns up to 12 meters and 2 turns above 12 meters. Best results are achieved if the loop and tails are one continuous cable. If this is not possible, the cable joint must be electrically sound and waterproof. The tails between the loop and the detector must be twisted with at least 10 twists per meter.

Size of the loop

For a car, where the loop is to be used as a pulse generator, the loop should be approximately 0.8 x 2.0 metres.

For larger vehicles, or when the loop is used for safety, the loop should be larger, i.e. 2.0 x 2.0 meters.

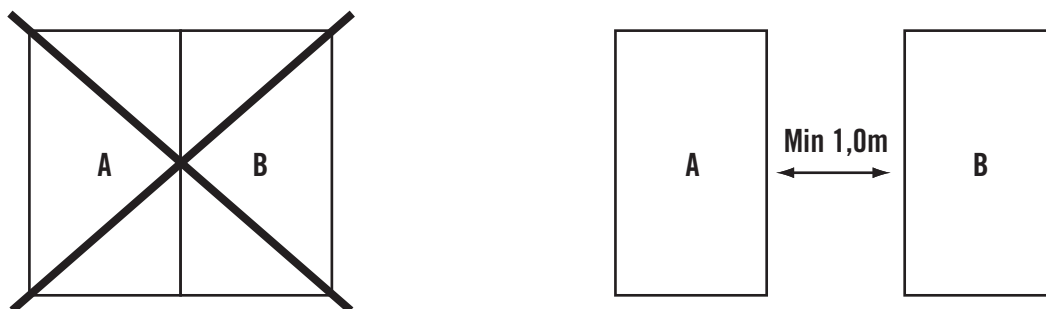
Cutting slots for the loop

Usually the loop is laid in a slot which is cut in the roadway surface. Normally these are 5-7 mm wide and 35-50 mm deep, with the corners cut at 45 degrees. Before the loop is laid, the slot should be checked to ensure it is smooth and clean.

Installing the loop

To ensure correct loop function, please note the following:

- The cable should be carefully laid in the slot to ensure the insulation remains undamaged.
- The minimum distance to a moving metal object such as a door or gate is 1.0 meter.
- The minimum distance to fixed metal objects such as reinforcing bars, etc is 50mm.
- Any connection between a loop and tails must be absolutely waterproof. Damaged insulation will give an unstable magnetic field and possible unsafe loop function.
- Heating or high voltage cables must not be installed in the vicinity of the loop or the loop tails.
- No other cables are to be laid in the loop slots, other than the loop cables.
- The loop tails can be up to 150 metres but loop sensitivity will be decreased.
- Minimum distance between loops are 1,0 meter. To DB312 may not direction detecting loops designed like an 'eight' be connected, the loops must be separated, se picture below.



Testing the loop

- Kontrollera att slingan och tilledaren är elektriskt obruten, ett seriemotstånd av 0,5 ohm är normalt – mer än 5 ohm betyder dålig kontakt.
- Viktigt är också att kontrollera slingans och tilledarens isolering mot jord. Motståndet mot jord, mätt vid 500 Volt, ska vara större än 10 Megaohm (normalt 500 Megaohm).

Safety Instructions

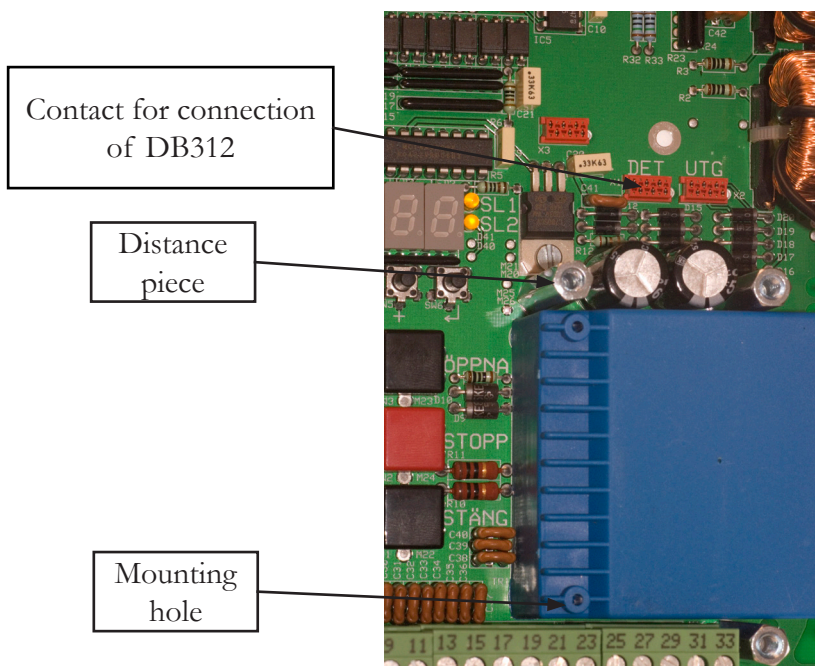
See user manual for the control panel EP103.

General

The DB 312 card is a supplementary card for providing an inductive loop input to an EP 103 (version 3.10 or higher) control panel. The card will accept up to two loops with different frequencies for each loop. For setting the loop functions, refer to the EP103 control panel manual.

Mounting

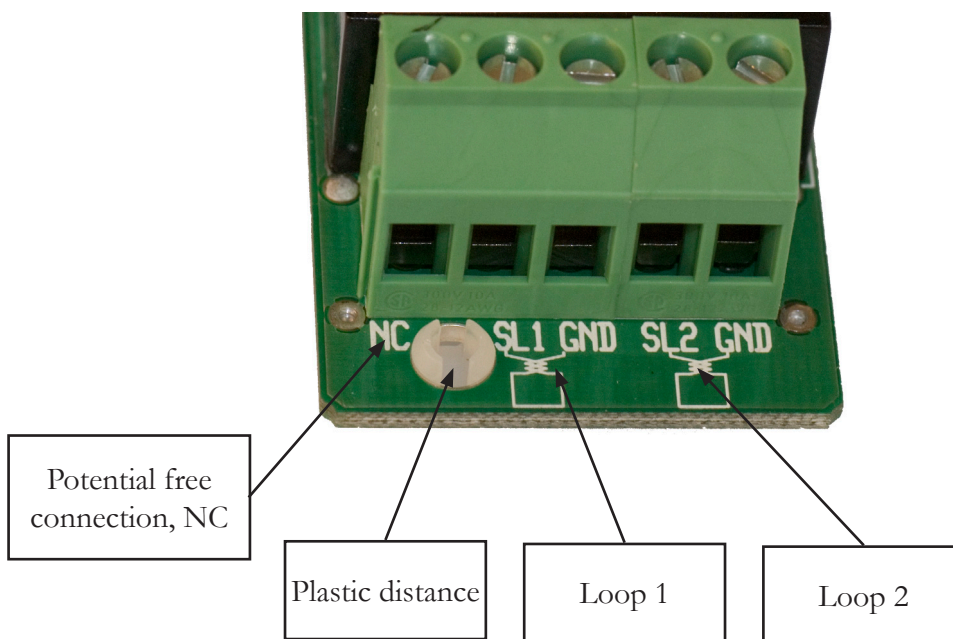
1. Turn off the power to EP103.
2. Mount the DB312 card with a M4x6 screw fitted to the distance piece on the EP103 panel and a 2,9x13 screw fitted in the cards lower mounting hole. See the picture below.
3. Connect the cable to contact "DET".
4. Connect the card according to connection instructions on next page.



Connection instructions

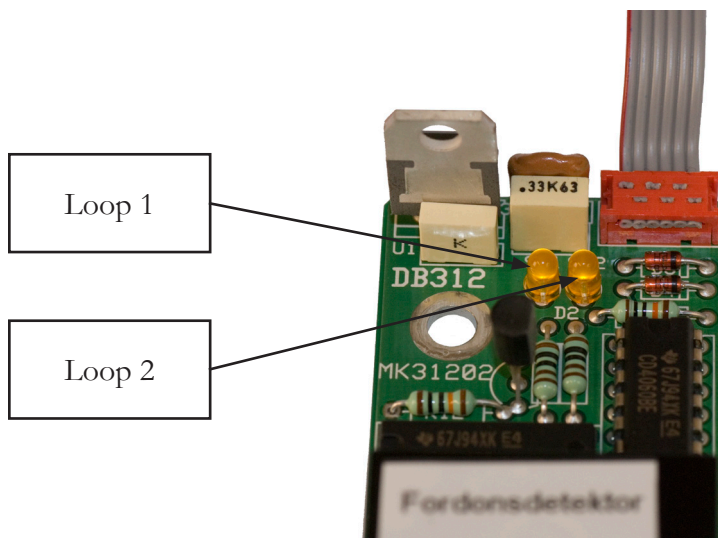
If two loops are connected to the card, the largest should be connected to input SL1. Note that connections shall only be made by competent personnel and that the power must to be turned off.

1. Tails from the loop should be twisted at least 10 twists per meter.
2. If one loop is used, this should be connected to terminals SL1 as shown below (SL1=loop 1).
3. If two loops are used, these should be connected to terminals SL1 and SL2 as shown below (SL2=loop 2).
4. If three loops are used, (two of them with the same function) these can be connected in series using terminal NC. This terminal is a potential free connection. It's important that the loops have the same circumference to ensure reliable function.



Status Diodes

There are two yellow LED's on the detection card, the left indicates for loop 1 and the right for loop 2. Slow flashing means the loop is connected and working but channel d00 on the EP103 panel isn't set for vehicle detection. See vehicle detector chapter in the EP103 manual for settings.



Suggestion of how to install induction loops

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<p>Instruction for installation of inductive loops at gates, doors and barriers.</p> <p>All measures in the chart below are in mm.</p> <p>Further information, such as number of turns in the loop, see instruction manual for "induction loop detector".</p>																																																																																																																																																																															
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DAAB – part of The FAAC Group

DAAB is based in Perstorp. We have been working with door technology since the beginning of the 1970s. With first class drive equipment developed and manufactured in-house, our products operate a large share of the gates, doors and barriers installed in the Nordic region. The majority of our customers can be found in industry and in public and private business, but an increasing number of products are also used in private dwellings.

Since 2007 DAAB has been part of the FAAC Group, the market leader in opening and control automation for doors and gates. FAAC is represented in 70 or more countries around the world and has its head office in Bologna.



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