# KAS; RS; SVM

# Induction Loops Pre-configured Loops / Loop Sealant





| Loops           | Circumference length | Number of windings | L [μH]      | Feeder-cable |
|-----------------|----------------------|--------------------|-------------|--------------|
| KAS 1           | 6 m                  | 3                  | 75 +/-20 %  | 15 m         |
| KAS 2           | 12 m                 | 3                  | 140 +/-20 % | 15 m         |
| KAS 3           | 21 m                 | 3                  | 250 +/-20 % | 15 m         |
| RS (frame loop) | 6 m (1 m x 2 m)      | 3                  | 75 +/-20 %  | 10 m         |

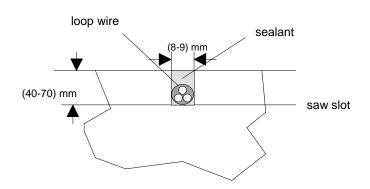
Other dimensions are available on request.

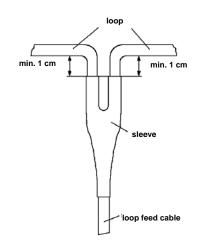
The induction loops are usually installed in a square or rectangular shape. The installation in asphalt or concrete ground requires a saw slot with the following geometric dimensions: depth: approx. (40 - 70) mm, width: approx. (8 - 9) mm.

Depending on circumference and shape of the loop, different values of inductivity are obtained. Inductances of the loops above are within the optimal range of operation (60-300)  $\mu H$  for Weiss-Electronic detectors. Within this range, the highest sensitivity is obtained.

The length of the loop feed cable may be reduced!

## Laying (KAS loops)









## **Induction Loops**



## Pre-configured Loops / Loop Sealant

## Please note before sealing:

- Saw slot must be dry and free of dust.
- Loop wire must be completely at the bottom of the saw slot. Wedges of wood or silicone may be used to fix the loop wire.
- Fill saw cut cleanly; use only as much sealant as needed to fill the slot.
- · Let the sealant harden.
- The loop must not be able to move in the slot or in the duct, the loop position must not be changed.
- Change of the loop position may be caused by:
  - Crossing of heavy vehicles (lorries, tanks...)
  - Swinging bridges
  - Different materials, in which the loop is laid in, e.g. one-third of the loop laying in concrete, two-thirds in black top.

As sealant we recommend the Weiss-Electronic "two-component cold-sealant" based on artificial resin. After installation it remains permanently elastic even in low temperatures.



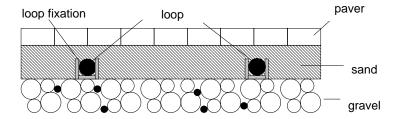
#### Heavy iron reinforcement

Iron reinforcement in the ground reduces the sensitivity of inductance loops. The smaller the distance between loop and the reinforcement, the lower is the sensitivity. Tracks, girders, grating or steel constructions must be regarded as such reinforcements. If possible, avoid iron reinforcements in the planning-phase or lay loops lower.

## Special areas of application (RS - loop)

### Loop installation underneath paving

Loops are being laid in the sandstone layer between the lower gravel layer and the pavers.



One way to fixate a loop is by laying it in a cable duct. The cable duct must be completely sealed with a suitable sealant after inserting the loop wire (application-specific product by Weiss-Electronic).

- spread bedding sand and compact
- lay pavers and compact
- measure insulation resistance
- · check functionality

For checking the loop values, Weiss-Electronic offers the loop diagnosis instrument SDG2000, also on loan.

On request, Weiss-Electronic will install the induction loop on site. We will be glad to advise you personally on this.

