



Reverse-Loop Module

from the *Digital-Professional-Series* !

KSM-SG-F Part-No.: **700502**

or

KSM-SG-G Part-No.: **700503**

>> finished module (-F) or
finished module (-G) in a case <<

The polar reversal at the reverse-loop will be performed without short-circuit via two sensor rails.

With reason to an external power supply possibility is a simple control of the reverse-loop with track occupancy module (e.g. RM-GB-8(-N) and RS-8) possible. The sensor rails will be controlled as well.

This product is not a toy! Not suitable for children under 14 years of age! The kit contains small parts, which should be kept away from children under 3! Improper use will imply danger or injuring due to sharp edges and tips! Please store this instruction carefully.



Introduction/Safety instruction:

You have purchased the reverse-loop module KSM-SG for your model railway layout.

The KSM-SG module is a high quality product that is supplied within the *Digital-Professional-Series* of Littfinski DatenTechnik (LDT).

We are wishing you having a good time using this product.

- Please read the following instructions carefully. Warranty will expire due to damages caused by disregarding the operating instructions. LDT will also be not liable for any consequential damages caused by improper use or installation.

The KSM-SG comes as finished module and as finished module in a case with a **2 years limited warranty**.

Connecting the reverse-loop module to your digital model railway layout:

- **Attention:** Before starting the installation switch off the drive voltage by pushing the stop button or disconnect the main supply.

The reverse-loop module receives the power supply via the clamp KL5. The voltage of 14...18V~ of a model railway transformer (ac output) is acceptable.

Operation mode:

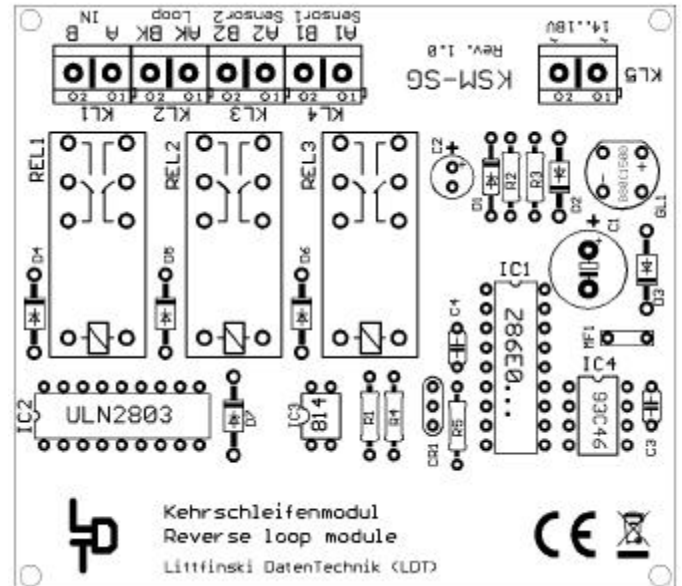
The reversal polarity of the reverse-loop will be performed without short circuit due to 2 sensor-tracks which are located at the entrance and at the exit of the reverse-loop. Both rails of the sensor tracks (A1/B1 and A2/B2) and the reverse loop (AK/BK) will be completely isolated and connected to the respective marked clamps at the reverse-loop module KSM-SG.

The sample connection 1 at the rear side of this instruction shows the complete wiring.

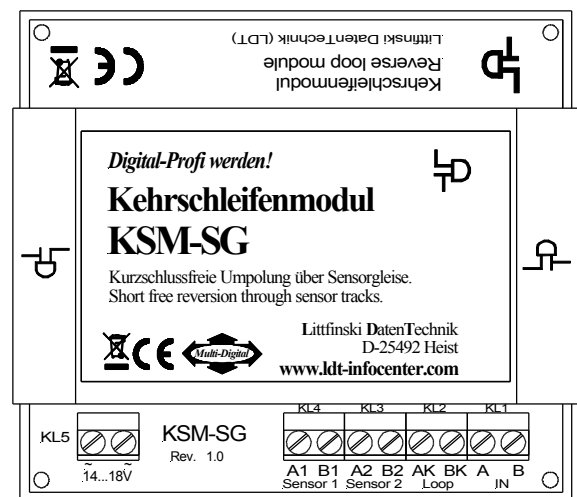
The optimal length of the sensor rails will be 5 to 20 cm. The minimum length of the reverse-loop has to be as long as the longest train length of the layout.

The reverse-loop KSM-SG can switch up to 8 Ampere digital current.

The input A and B of the reverse-loop module KSM-SG will receive the digital current from the digital central unit or from a booster from the ring-conductor "driving".



Because the KSM-SG itself requires no digital current and receives the energy from a model railway transformer is a simple wiring for the control of the reverse-loop in combination with track occupancy sensors possible.



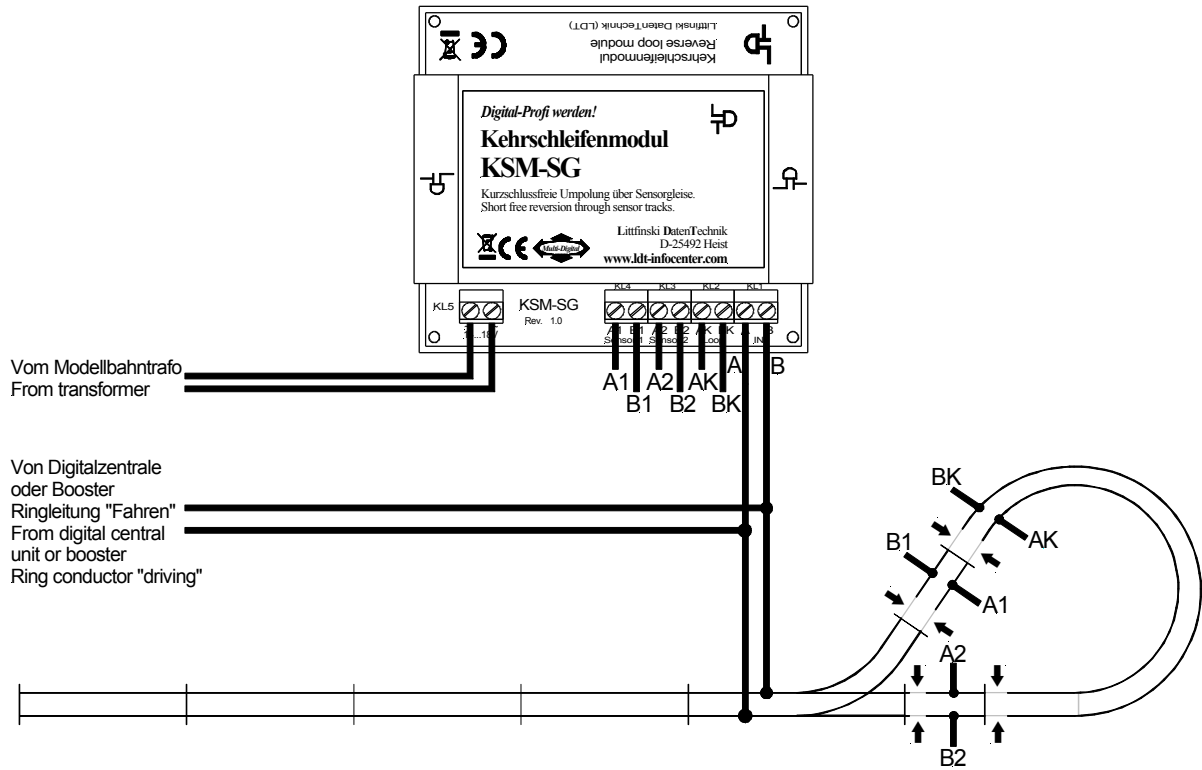
The sample connections 2 at the rear side of this instruction shows the reverse-loop control via the feedback module RM-GB-8(-N) with integrated track occupancy report.

The reverse-loop KSM-SG inputs A and B receive digital current from one of the 8 outputs of the RM-GB-8(-N). On this process will be every current consumer within the reverse-loop recognized and produces an occupancy report. The sensor tracks will be controlled as well.

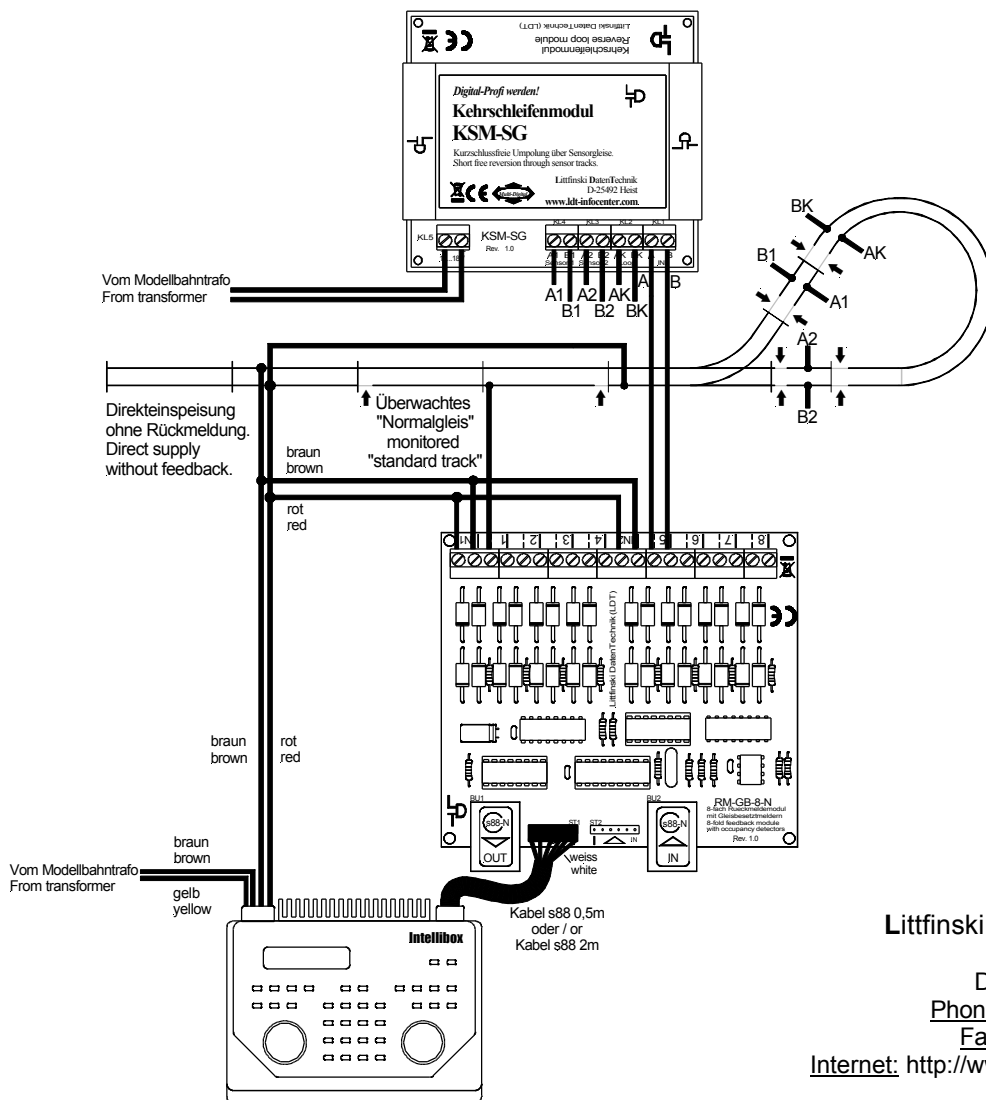
Further information related to the control of reverse-loops can be found at the Internet on our Web-Site (www.ldt-infocenter.com) within the section "Downloads". Please download the file "reverse-loop_30" onto your PC.

At the section "Sample Connections" on our Web-Site are additionally samples for the reversal polarity with the reverse-loop module KSM-SG for further track layouts available.

Sample Connection 1: Automatic polarity of a standard reverse-loop with the reverse-loop module KSM-SG.



Sample Connection 2: Reverse-loop polarity via the reverse-loop module KSM-SG plus track occupancy report at the reverse-loop with the RM-GB-8-N. Sensor tracks will be monitored as well.



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