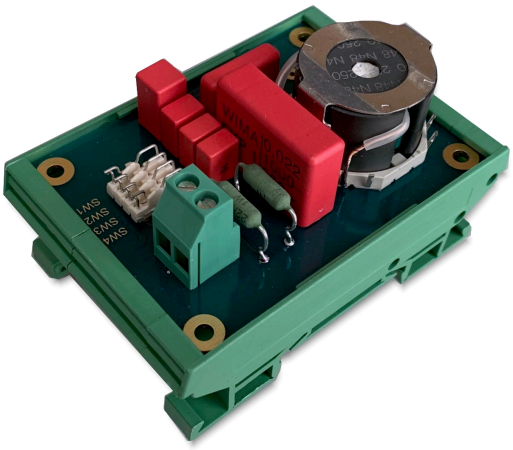
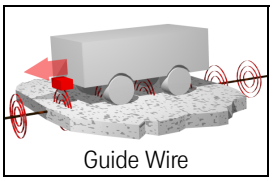
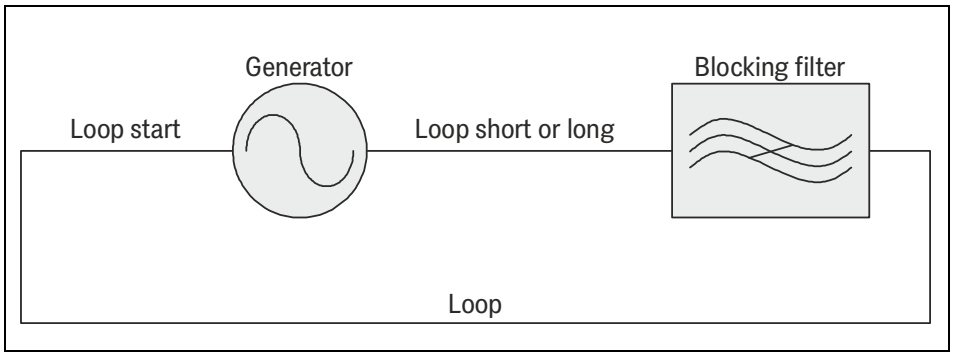
Data Sheet




Guide Wire

Blocking Filter for Combinations of Energy Track and Guide Wire



If an energy track (20 kHz, 25 kHz or 141 kHz) is used in combination with a normal inductive loop (guide wire, frequency in the range of 5 .. 10 kHz) it can happen that the energy track induces a voltage into the guide wire loop. This voltage results in a current in the loop that can influence the generator's current regulation or – in extreme cases – destroy the generator.

In order to reduce this unwanted current the blocking filter (loop filter) can be connected in series to the loop. The loop filter can be adjusted to the energy frequency via a customizable inductivity.

Overview

- Blocking filter for energy track and guide wire
- Casing for top hat rail mounting
- Configuration of capacity, frequency and serial resistance via switches
- Variants for common energy tracks
- Energy frequency adjustable

Version/Variant		Energy frequency
HG G-50875	ZA	20 kHz
	YA	25 kHz
	XA	141 khz

Date: 07.08.2019 | Revision 01 / English | Author(s): RAD / TN
Product page: http://goetting-agv.com/components/50875

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SW1	SW2	SW3	Capacity	Frequency
o	o	o	68 nF	11,5 kHz
o	o	X	136 nF	8,5 kHz
o	X	o	168 nF	7,7 kHz
o	X	X	236 nF	6,6 kHz
X	o	o	288 nF	6,0 kHz
X	o	X	356 nF	5,4 kHz
X	X	o	388 nF	5,1 kHz
X	X	X	456 nF	4,7 kHz

SW4	Serial resistance
o	11 Ohm
X	0 Ohm

o = Switch open
X = Switch closed
Default: All open

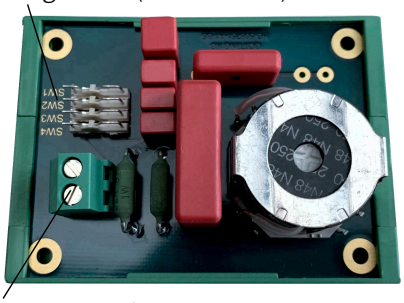
Götting Product IDs (order codes)

HG G-50875ZA

- Production series (no functional relevance)
- Functional Model / Version Identification Number / Type
- G: Device | K: Component | S: System | W: Software
- HG: Götting | HW: Resale

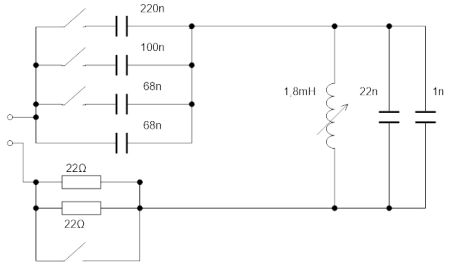
Configuration / Circuit Diagram

Switches SW1 - SW4
Configuration (s. left sidebar)



Loop connection

Circuit diagram



Commissioning and Calibration

1. Set the vehicle's steering antenna (e.g. .HG G-19370) to the frequency in use
2. Switch energy track off.
3. Set generator to guide wire frequency, set the current.
4. Place steering antenna above track (60 mm reading distance, center of track) outside of the energy track (keep a distance of 1 m). Connect a PC/Laptop and record the values for energy track off (sum signal for 6.3 kHz should be in the range of 200 to max. 300).
5. Switch energy track on. Repeat 4. with active energy track.
6. Disconnect the guide wire loop from the generator and measure the induced voltage with active energy track in idle mode (ATTENTION: Voltage unknown, CAUTION).
7. Connect a loop with 1 Ohm and measure the voltage. The voltage must then be below 1 Veff.
8. Without generator connect the loop filter in series to the loop and set the coil to maximum voltage (minimum current). The current should be below 10 mA, more in the range of 1 mA.
9. Connect the guide wire loop to the generator.
10. Use the adjustable condensators (SW1--SW3) to set the voltage of the guide wire frequency so that the generator's green LED OK is lit resp. the voltage of the guide wire's frequency is minimal.
11. If the generator signals Z>Zmax short-circuit the resistors (close switch SW4).
12. If the generator signals Z<Zmax connect the resistors in series (open switch SW4).
13. Repeat the measurements from 5. The values should now be similar to 4.

Technical Data	
Dimensions	approx. 83 mm x 45 mm x 57 mm (W x H x D)
Casing	Plastic, top hat rail mounting
Weight	approx. 200 g
Protection class	IP 00
Relative humidity	95 % at 25° C (without condensation)
Temperature ranges	Operation: -20° C to +50° C / Storage: -20° C to +70° C
Connections	2-pin connection loop
Configuration	4 switches for the adjustment of capacity, frequency and series resistance
Loop current	max. 200 mA

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