

System Components



Main Features

The system is used to find a wire and locate a break in a wire.

Götting Product IDs (order codes)

HG S-80400-B

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

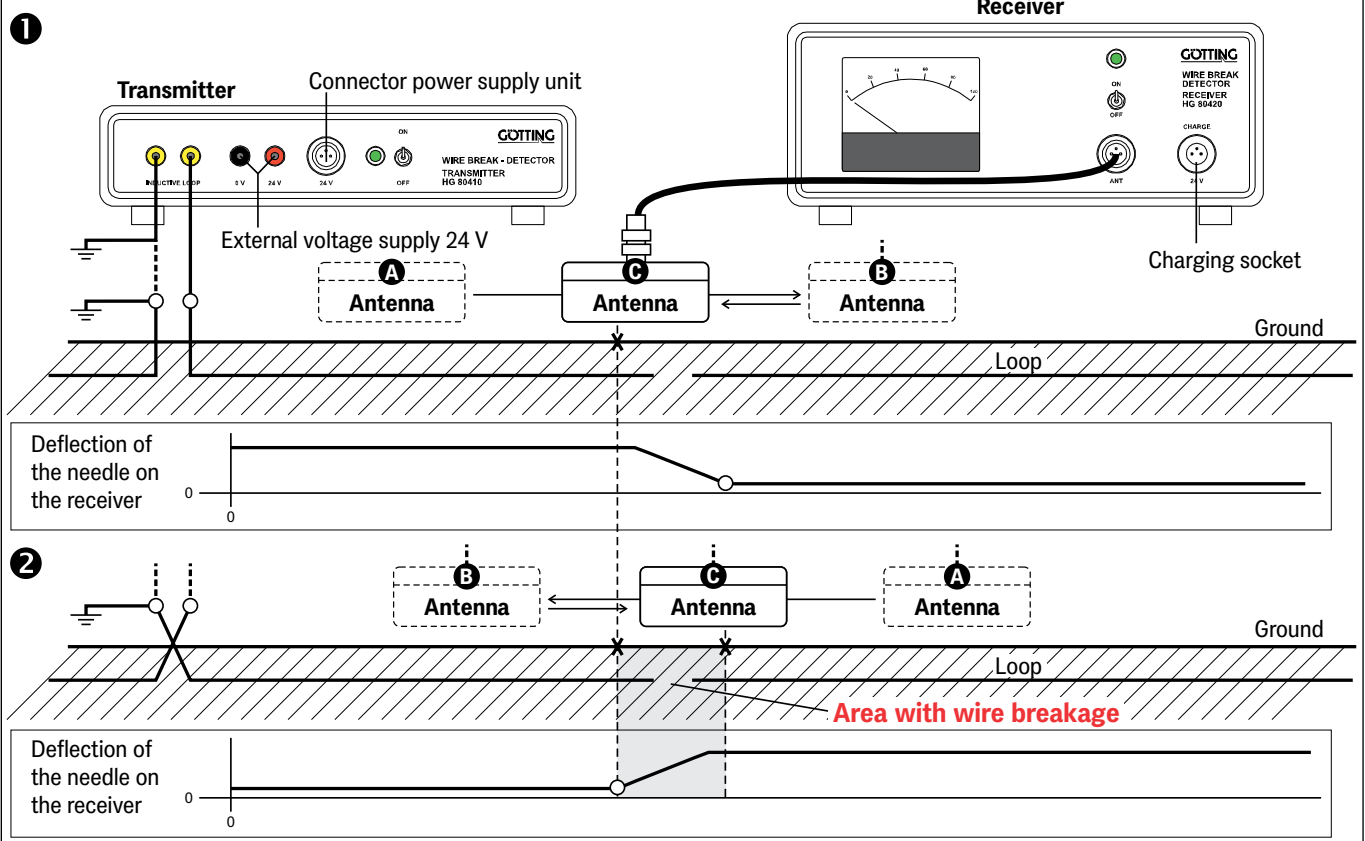
Order No.	Description	Height [mm]	Width [mm]	Depth [mm]	Weight [g]
HG G-80410	Transmitter	65	260	250	approx. 900
HG G-80420	Receiver	110	260	250	approx. 2,300
HG G-80421	Antenna	40	100	50	approx. 100

Technical Data	
Dimensions	See table above
Weight	See table above
Current consumption	Transmitter: TX 160mA Receiver: RX 20mA
Receiver operating time	with one charge > 20 hours
Supply voltage	– Plug-in power supply for the transmitter (and for charging the receiver) – alternatively 24 V via bunch plug Nominal voltage: 24 V ± 10 %
Temperature ranges	Storage and operation: 0° C to 50° C
Antenna cable	Length: 2 m
Connectors	Binder plug with screw cap
Detection width	approx. 10cm (depth in the ground, depending on the underground)

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 📄 Product page: <http://goetting-agv.com/components/80400>



Function



Requirements

- The wire break detector is an electrostatic measuring device, the receiver has a limited range of approx. 10 cm.
- The conducting wires must be free of voltage. Crossing or parallel wires must be disconnected.
- If the lead to the conductor loop is made by twisted wires, the twisted part must be disconnected during the measurement.
- The point of interruption can only be found if the interruption is unambiguous ($R \rightarrow \infty$). A corresponding resistance measurement should be carried out beforehand. Insulation faults cannot be detected with the device.

Wire break test

Preparation

Make sure that the requirements mentioned in the box on the left are met.

Connecting the transmitter

The transmitter is connected to 24 V supply voltage. The voltage is provided by the supplied power pack or by an external battery. If no mains voltage is available, the transmitter can alternatively be supplied via the 5mm bunch plugs.

The wire is connected to the outputs of the transmitter (yellow sockets) as follows:

1. Connect the first yellow socket of the transmitter HG G-80420 to a potential equalization or – if not available – to a protective earth conductor (PE).
2. Connect one end of the guide wire also to a potential equalization or to a PE.
3. Connect the other end of the wire to be measured to the second yellow socket.
4. Switch on the transmitter.

Connecting the receiver and measuring the interruption of a wire

The receiver has a built-in accumulator that can be charged with the transmitter's power supply.

1. Connect the antenna to the receiver and switch on the receiver.
2. Locate the beginning of the wire section and place the antenna on the wire (A). The receiver should display a value. Follow the path of the wire until the receiver does no longer indicate a value (B). Then move the antenna back until the original value is present again (C) and mark (X) the location (part 1 in the sketch above).
3. Now swap the two ends of the wire at the transmitter and take the measurement in the same way in the opposite direction (part 2 in the sketch above).

Between the two marked points lies the interruption, which can then be uncovered.