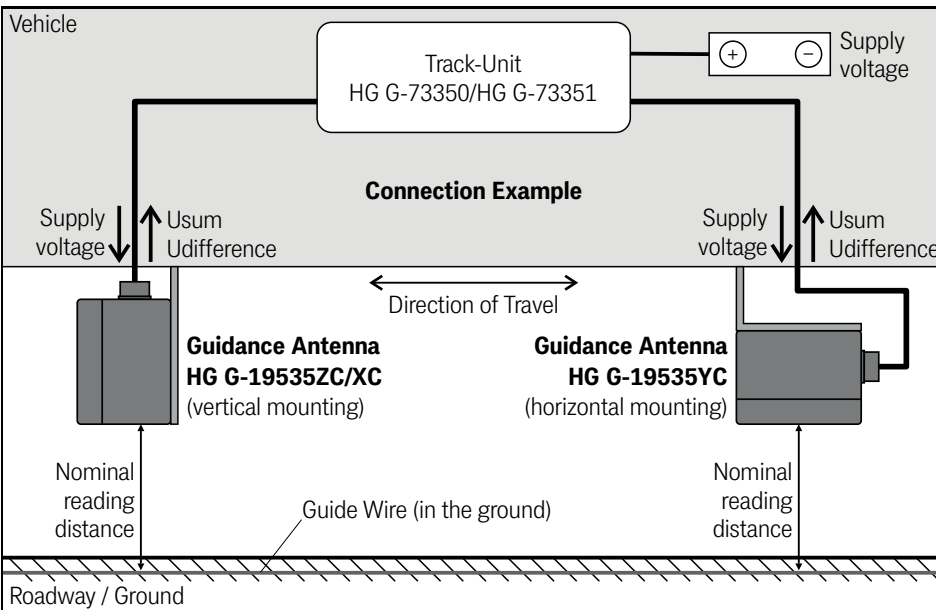


Functional Description



Main Features

- Inductive track guidance antenna for AGVs
- To be used with track-units HG G-73350/HG G-73351
- Multifrequency, guide wire frequency range 3 to 25 kHz
- Reinforced fibre glass casing (IP65, fully sealed) for outdoor operation
- 4-pin M12 connector for the connection with the track-unit

Variants

HG G-19535	ZC	Vertical mounting
	YC	Horizontal mounting
	XC	Vertical mounting calibrated to 100 mA / 80 mm

For track guiding of automated guided vehicles (AGV), inductive guidance systems have proven to be very reliable. A frequency generator feeds a current into a guidance wire installed in the ground. Along this wire an alternating magnetic field is generated.

The guidance antenna HG G-19535-C detects the horizontal (sum) and vertical (difference) components of the magnetic field by a specific set of coils. It then outputs Usum and Udifference to the track-unit. The track-unit interprets the data and filters out the set frequencies.

The antennas are pre-calibrated so that an output voltage of 1 Vpp (corresponding to 12000/6000 units in the interpreter HG G-

73350/HG G-73351) is output as a maximum at 100 mA wire current and – depending on the variant – 60 resp. 80 mm reading height.

In the case of multi-frequency systems, the output voltage must not exceed 5 Vpp, otherwise the interpreter will be overloaded (e.g. max. 5 wires/frequencies of 100 mA each at 60 mm reading height).

When ordering, please specify for which wire current and which reading distance the antennas are to be calibrated, if the required values deviate from the standard values mentioned above.

4 pin M12 connector, A-coded		
Drawing	Pin	Function
	1	+24 V
	2	GND
	3	Usum
	4	Udifference

Factory Calibration

Wire current / reading distance *)
 If both values are halved/doubled/tripled respectively, the antenna will also work with this calibration.

Variants ZC & YC

- 50 mA / 30 mm
- 100 mA / 60 mm **)
- 200 mA / 120 mm
- 300 mA / 180 mm

Variant XC

- 50 mA / 40 mm
- 100 mA / 80 mm **)
- 200 mA / 160 mm
- 300 mA / 240 mm

*) Please specify deviating wire currents and reading distances when ordering.
 **) Calibration of this variant as specified in the technical data.

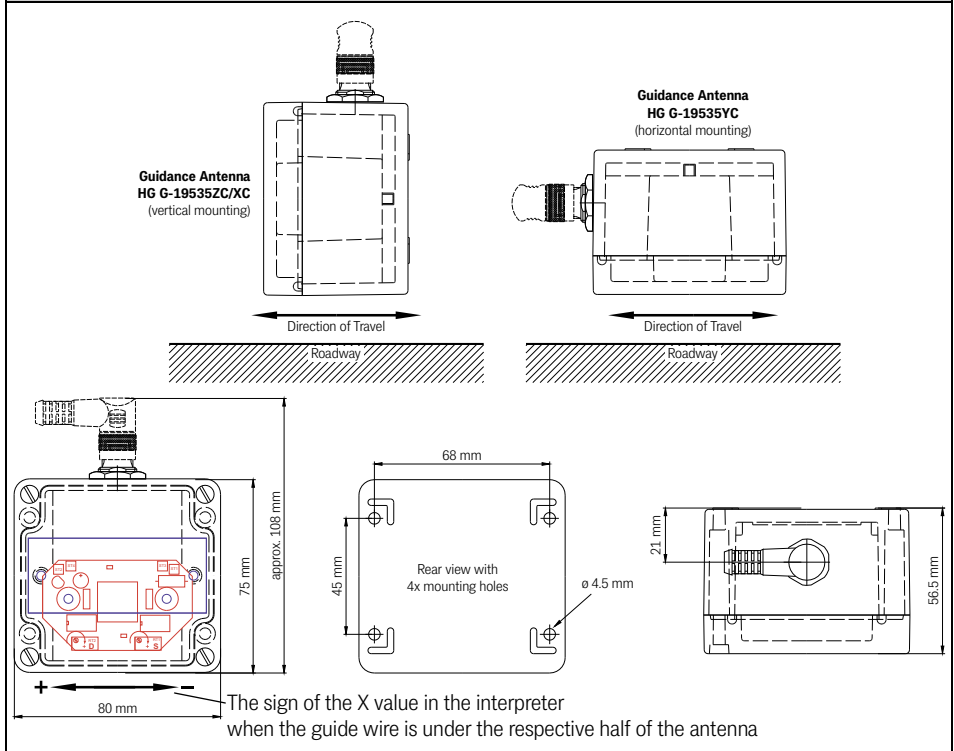
Corresponding Products	
Connection cable guidance antenna <-> interpreter	<ul style="list-style-type: none"> • Götting HW CAB00023: Cable PUR, 5 m with M12 plug, 4-pin, A-coded, angled, completely assembled on one side with mating connector M12 cable socket, 4-pin, A-coded, straight • alternatively self-assembled sensor cable 4 pin, shielded, plug and socket, A-coded, max. length 30 m
	HG G-73350 Track-unit (interpreter) CAN/Canopen®
HG G-73351	Track-unit (interpreter) Profibus®

Götting Product IDs (order codes)

HG G-19535ZC

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

Dimensions / Mounting



The antenna may be mounted with 4 screws. Its orientation depends on the model (horizontal/upright). In order to reach the mounting holes remove the antenna lid. We recommend the use of non-metallic mounting brackets (not within the scope of supply) to install the antenna underneath the vehicle. Please observe the metal-free areas listed below for undisturbed signal processing.

Metal-free Areas Around the Antenna		
Direction	Minimum metal-free space	Note
Left, right *)	>= 75 mm	Undercutting leads to changes in the distance output
Front, rear *)	>= 50 mm	Undercutting leads to signal attenuation
Above (vehicle)	>= 30 mm	Undercutting leads to signal attenuation
Below	No metal!	Detection side

*) = in relation to the direction of travel

Technical Data	
Dimensions	80 x 75 x 56.5 mm (W x H x D), height with connector approx. 108 mm
Casing	Glass fibre reinforced plastics casing
Weight	350 g
Temperature ranges	Operation: -20° C to +50° C / Storage: -20° C to +70° C
Supply voltage	24 V ±25 %
Current consumption	10 mA
Reading distance	Depending on wire current 30 to 180 mm see also box "factory calibration" in the left sidebar
Frequency range	3 to 25 kHz (the track-unit filters out the frequency to be used)
Factory default	<ul style="list-style-type: none"> • ZC/YC: 100 mA / 60 mm • XC: 100 mA / 80 mm @10 kHz 1 Vpp corresponding to 12000 / 6000 units in the interpreter, see also box "factory calibration" in the left sidebar
Protection class	IP 65 (completely sealed)
Relative humidity at 25° C	95% (non-condensating)
Connector	4 pin M12 male, A-coded