

## Single Channel Inductive Loop Vehicle Detector

### GD100



This innovative GD100 single channel inductive loop vehicle detector is a compact detector customised for the gate & door market.

The GD100 is designed for DIN RAIL mounting.

The Nortech GD100 is a cost effective choice when selecting a detector for parking boom gate control or motorised door and gate applications.

The primary function of the detector is to detect vehicle presence by means of an inductance change caused by the vehicle passing over a wire loop buried under the road surface.

#### PART NUMBER

200FT0100

GD100 Detector

24V AC/DC

#### FEATURES

##### Compact Size:

The compact aesthetically pleasing housing combined with all the industry requirements regarding features and functionality allows this detector to be incorporated into any new or existing vehicle detection system.

##### Selectable Permanent Presence:

Using this feature, the output of the presence relay will be maintained for an indefinite period, thereby eliminating premature barrier/gate/door closure and possible vehicle damage.

##### Loop Frequency Adjustment:

The possibility of crosstalk (interference) between closely spaced adjacent loops can be eliminated using the alternative frequency setting.

##### Loop Isolation Protection:

The loop isolation transformer provides protection against lightning and transient damage and allows for operation with single point to ground sensor loops.

##### Fail Safe / Fail Secure:

The failure mode of the detector is now configurable from a switch on the front panel. In safety applications, a fault will produce a detection output, while for security applications it will not.

#### APPLICATIONS

- Parking boom gate control
- Rising Bollards
- Motorised gates and doors
- Industrial control systems

## TECHNICAL DETAILS

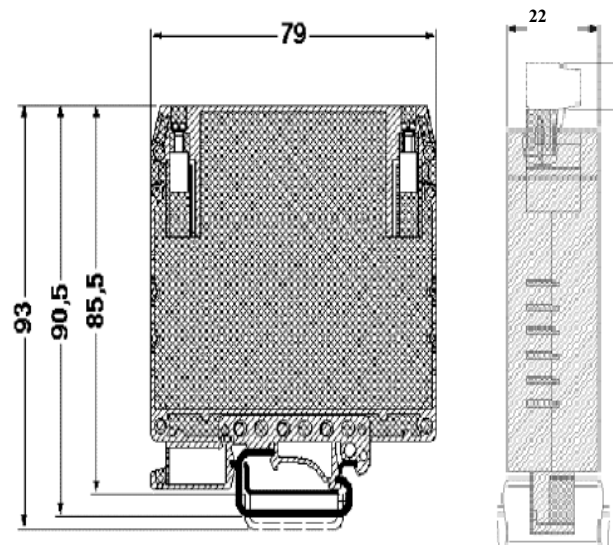
Self tuning range:	20-1500 $\mu$ H
Sensitivity:	Four step adjustable on face-plate High: 0.02% $\Delta$ L/L Medium High: 0.05% $\Delta$ L/L Medium Low: 0.1% $\Delta$ L/L Low: 0.5% $\Delta$ L/L
Frequency:	Two step adjustable on face plate, 12- 80kHz (frequency determined by switch setting and loop geometry)
Output Configuration	2 output relays: Relay 1 = Presence output Relay 2 = Pulse output (undetect)
Pulse output duration:	Approx. 150ms Factory option 250ms
Presence time:	1 hour for 3% $\Delta$ L/L and permanent presence option
Operating modes:	Fail safe / Fail secure Presence output
Indications:	The following face-plate indications are provided: Red LED – power; Green LED – channel indicator 1. Tuning – on steady followed by flashing frequency count (x 10 kHz) 2. Undetect – off 3. Detect – on steady 4. Fault – on with short off
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	24V AC/DC $\pm$ 10% 1.5VA max
Presence Output Relay:	0.5A @ 30V AC/DC N.O. contact (fail – safe) N.C. contact (fail – secure)
Pulse relay:	0.5A @ 30V AC/DC N.O. contacts

## GD100

Operating temperature range: -40°C to +80°C

Mechanical detail:

Material:	High heat ABS blend
Dimensions:	86mm (L), 79mm (W), 22mm (H)
Mounting:	DIN-rail socket
Connector:	6 way screw terminals plus pluggable Loop inputs



## WIRING DETAILS

pin	designation
1	0V DC or Neutral AC
2	+24V DC or 24V AC
3	Pulse Relay   N/O Contact
4	Pulse Relay   Common Contact
5	Presence Relay   Common Contact
6	Presence Relay   N/O Contact
7	Loop   Twist this
8	Loop   pair

