

## Dual Channel Inductive Loop Vehicle Detector

### GD200



This innovative GD200 dual channel inductive loop vehicle detector – is a compact detector customised for the gate & door market.

The GD200 is designed for DIN RAIL mounting.

The Nortech GD200 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

202FT0001

GD200 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 adjacent loops / detectors can be eliminated using the alternative frequency settings.

##### 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.

##### Selectable direction logic option:

Convenient faceplate selection of vehicle direction logic mode that utilises both loops to provide outputs dependant on vehicle direction.

##### Fail Safe / Fail Secure:

The failure mode of the detector is configurable from internal links. In safety applications, a fault will produce a detection output, while for security applications it will not.

##### Pulse / Presence option:

The Ch2 relay operates in either presence or pulse mode depending on the faceplate switch selection.

#### APPLICATIONS

- Parking boom gate control
- Vehicle access control
- Motorised gates and doors
- Industrial control systems

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## TECHNICAL DETAILS

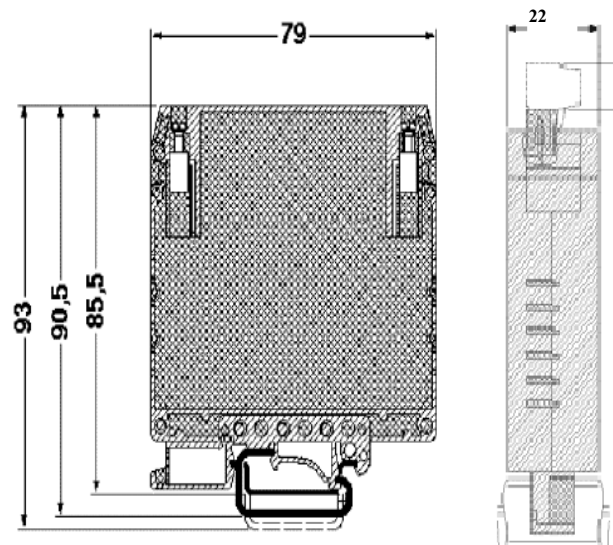
|                        |   |
|------------------------|---|
| Self tuning range:     | 20-1500 $\mu$ H   |
| Sensitivity:           | Four step adjustable on face-plate<br>High: 0.02% $\Delta$ L/L<br>Medium High: 0.05% $\Delta$ L/L<br>Medium Low: 0.1% $\Delta$ L/L<br>Low: 0.5% $\Delta$ L/L  |
| Frequency:             | Two step adjustable on face plate,<br>12- 80kHz (frequency determined by loop geometry)   |
| Output Configuration:  | 2 output relays:<br>Relay 1 = Ch 1 - Presence output<br>Relay 2 = Ch 2 - Presence output / switch selectable pulse output   |
| Pulse output duration: | Approx. 150ms<br>Factory option 250ms   |
| Presence time:         | 1 hour for 3% $\Delta$ L/L and permanent presence option  |
| Operating modes:       | Mode selector on faceplate:<br>1. Direction logic<br>2. Presence / pulse  |
| Indications:           | The following face-plate indications are provided:<br>Red LED – power;<br>Green LED – channel indicator<br>1. Tuning – on steady in Presence mode<br>2. Alternating flash after tune in AB logic mode |
| Protection:            | Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection   |
| Power requirements:    | 24V AC/DC $\pm$ 10%<br>1.5VA max  |
| Output Relays:         | 0.5A @ 30V AC/DC<br>Ch1 Presence N.O. contacts (N/C optional)<br>Ch2 Presence N.O. contacts or Pulse output   |
| Fail safe:             | Standard is failsafe<br>Option fail secure ( by means of internal link selection)   |

## GD200

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  |
| Connectors: | 6 Integral screw terminals plus pluggable Loop inputs |



## WIRING DETAILS

| pin | designation                |
|-----|----------------------------|
| 1   | 0V dc or Neutral AC        |
| 2   | +24V ac / dc               |
| 3   | Channel 2   N/O Contact    |
| 4   | Channel 2   Common Contact |
| 5   | Channel 1   Common Contact |
| 6   | Channel 1   N/O Contact    |
| 7   | Loop 2   Twist this        |
| 8   | Loop 2   pair              |
| 9   | Loop 1   Twist this        |
| 10  | Loop 1   pair              |

