

# BL100 Series

## Boom Gate Logic with Loop Detector



The **BL100** combines the features of a loop detector and boom gate logic into a single unit.

The unit has been developed to control boom gates using torque motors and has inputs for PE safety beams or free exit loop detectors.

The manual override switch on the front of the unit can be used to open and close the boom gate.

<b>POWER REQUIREMENT</b>	200 - 260 VAC 50/60Hz	
<b>NMI / MI INPUT</b>	This input may be activated by a potential free relay contact or open collector NPN transistor output. This input is isolated from the logic.	
<b>BEAM INPUT</b>	This input may be activated by a potential free relay contact or open collector NPN transistor output. This input is isolated from the logic and is used as an extra safety input.	
<b>REMOTE RAISE INPUT</b>	This input may be activated by a potential free relay contact or open collector NPN transistor output. This input is isolated from the logic and is used to keep the barrier permanently open.	
<b>RAISE / LOWER OUTPUT</b>	This output is a normally open relay contact rated at 0.5A/220VAC	
<b>TVI OUTPUT</b>	This output is a normally closed relay contact rated at 0.5A/220VAC	
<b>INDICATORS</b>	LED indicators show: Barrier raised and state of loop detector.	
<b>DETECTOR TUNING RANGE</b>	15 - 1500 uH.	
<b>SENSITIVITY</b>	High            0.02% Medium High   0.05%	Medium Low   0.1% Low            0.5%
<b>PROTECTION</b>	Loop isolation transformer, tranzorb and MOV protection on loop input.	
<b>DIMENSIONS</b>	75mm (HIGH) X 40mm (WIDE) X 75mm (DEEP)	
<b>OPERATING TEMP</b>	40°C TO +80°C	

## STANDARD FEATURES

\* **Selectable Memory/Non Memory input.**

The Memory input feature will allow opening inputs to be memorised. This will then enable a number of vehicles to pass over the closing loop before the boom gate lower output is enabled. The purpose of this feature is to enable vehicles to pass the boom gate without opening and closing for each vehicle and hence allowing rapid entry or exit of vehicles.

\* **Automatic/Manual mode.**

This mode allows the boom gate to be manually operated for maintenance purposes.

\* **Barrier raise /lower relay output.**

This output is used to control the motor which raises or lowers the boom gate

\* **Ticket vend interlock relay output.**

This output is used to prevent tickets from being issued when the boom gate is in the raised position.

\* **Time out if vehicle reverses out.**

On some occasions a vehicle may raise the boom gate and then reverse out. In this situation the logic will time-out (switch selectable) and automatically lower the boom gate

\* **Roll-back protection.**

After a vehicle has passed the closing loop and the boom gate is closing, it is possible for the vehicle to roll backwards under the closing boom gate. In this situation the logic will raise the boom gate again until the vehicle moves forward off the closing loop.

\* **Automatic closing from loop detector output.**

The loop detector is connected internally to the logic and is used to close the boom gate when the vehicle has passed over the loop.

\* **Facility for extra loop detector for opening input interlock.**

Another loop detector may be used to prevent the boom gate from being raised when there is no vehicle present. This is done by placing this loop in front of the boom gate and a vehicle must be present on this loop to allow opening of the boom gate

\* **Facility for Free Exit loop detector.**

Another loop detector may be placed after the boom gate and used to raise the boom gate as a free exit option. This feature is normally used in a bi-directional lane.

\* **Switch selectable Sensitivity.**

Four sensitivity settings are available on the switches.

\* **Switch selectable Frequency.**

Two frequency settings are available to prevent cross-talk between adjacent loops.