

BL110 Series Boom Gate Logic

Boom gate logic for torque motor boom gates

The BL110 boom gate logic is used to control boom gates fitted with torque motors.

It has inputs for safety PE beams or loop detectors and has a manual override switch to assist in setting up the boom gate.

The Toggle input can be used to raise and lower the boom gate from a remote push button or radio receiver.



BL110 Series Loop Detector features include:

- 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.
- Toggle input: The boom gate can be raised and lowered from a remote push button or radio receiver.
- 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.

Technical Specifications

Specification	BL110 Series			
Power Requirement	200 - 260 VAC 50/60Hz			
NMI / MI Input	This input may be activated by a potential free relay contact or open collector NPN transistor output. This input is isolated from the logic.			
Beam Input	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.			
Remote Raise Input	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.			
Raise/Lower Output	This output is a normally open relay contact rated at 0.5A/220VAC			
TVI Output	This output is a normally closed relay contact rated at 0.5A/220VAC			
Indicators	LED indicators show: Barrier raised and state of loop detector.			
Detector Tuning Range	15 - 1500 uH.			
Sensitivity	High Medium High	0.02% 0.05%	Medium Low Low	0.1% 0.5%
Protection	Loop isolation transformer, tranzorb and MOV protection on loop input.			
Operating Temp	40°C TO +80°C			

Dimensions



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