

# BL43 C50

## Datasheet

Rev. 02 • Update 02/2022

**AS** AUTOMATIC  
SYSTEMS



Unique design for extremely high impact resistance:

- Steel IPN beam with release prevention plates.
- Beam in lowered position for impact with car bumpers (**M1**) reducing the penetration distance and protecting the interior or in raised position for vans (**N1**).
- Two supports mounted on a base with suitable reinforcements for solid anchoring and transfer of impact energy into the foundations.

Rapid operation:

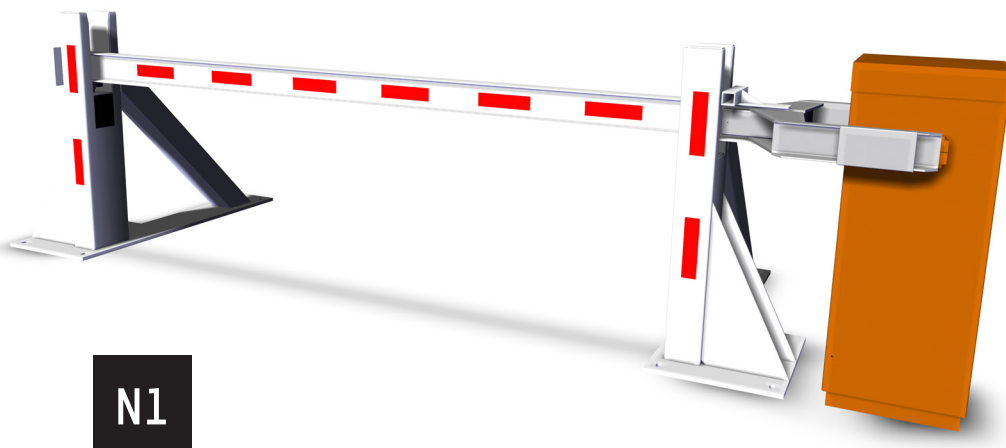
- Rapid closing for optimal safety.
- Rapid opening for use as access control device.
- Instantly reversible operating mode.

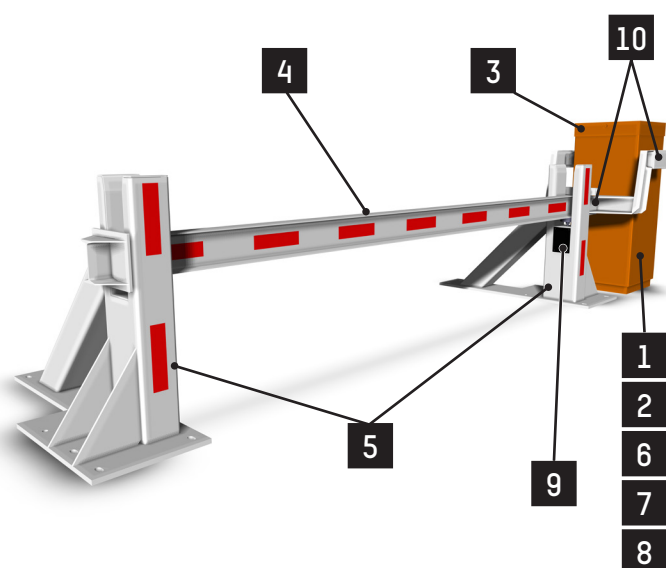
Electromechanical activator for easy maintenance.

Shallow concrete foundation for easy installation.

Maximum passage width of 3 m.

Wide range of accessories for protection of the application and other uses.





## DESCRIPTION

1. Folded and welded sheet metal body, 3 to 8 mm thick.
2. Lateral and frontal doors with key lock, ensuring easy access to the mechanism.
3. Removable weatherproof top cover with key lock.
4. White painted central arm with red and white reflective strips. Arm built around a steel IPN beam.
5. Two supports (struts) with single triangulation for installing the beam. Made of white painted steel with red and white reflective strips.
6. Solid drive shaft for the arm, with 50 mm diameter, mounted on 2 lifetime lubricated bearings.
7. Electromechanical unit:
  - Reversible three-phase asynchronous gear motor.
  - Secondary transmission via gearwheel and sprocket wheel.
  - Frequency inverter ensuring progressive accelerations and controlled decelerations, for vibration-free movement and enhanced protection of the mechanism.
  - Electromagnet-controlled lock to maintain the open and closed positions during operation and in case of power failure.
  - Electronic torque limiter allowing the arm to be stopped immediately during closing in the event of an obstacle.
  - Inductive limit switches.
  - Balancing of the arm by 6 compression springs.
8. Configurable electronic control board allowing for various control options and/or additional accessories. Terminal blocks for communication with an external device to:
  - Provide status of the arm position (*open or closed*).
  - Provide status of the presence detectors.
9. Safety detection photocell (*optional*).
10. Cover for vandal-proof screws.
11. Reinforced bracket in orange colour.
12. Mechanical locking of the arm (*recommended option*):
  - In raised or lowered position during operation

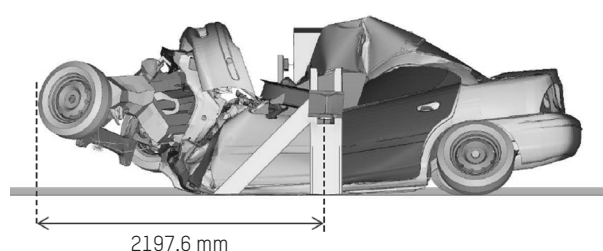
## RISING SAFETY BARRIER

Impact resistance certified by computer simulation (\*) in accordance with international standards.

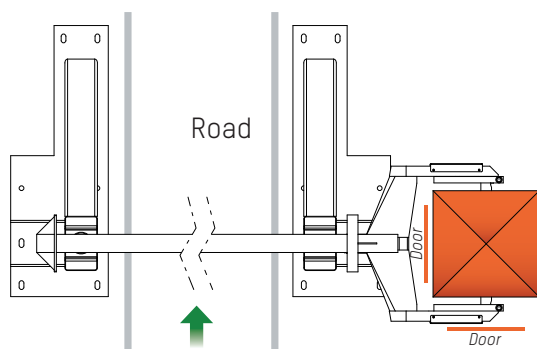
LOAD CONDITION SPECIFICATIONS	
Type of vehicle as per IWA 14-1	M1
Weight of the vehicle	1500 kg
Impact speed as per standard ASTM-F2656	65 km/h
Angle of impact	90°
Energy on impact	244,5kJ

(\*) Test report available upon request.


## IMPACT SIMULATION



## SOLUTIONS



## STANDARD TECHNICAL CHARACTERISTICS

Power supply	Single-phase 230 VAC - 50/60 Hz + ground <sup>(1)</sup>
Consumption	450 W (rated) - 950 W (max. - with the largest heating element)
Motor	Three-phase asynchronous 250 W controlled by frequency inverter
Speed reduction gearbox	Reversible ring and pinion speed reducer, service factor 1.2
Useful length of the arm (L)	3 m
Wind resistance	120 km/h
Ambient operating temperature	Between -10° and +50°C
Relative ambient humidity	95%, without condensation
Opening speed <sup>(2)</sup>	3.5 sec
Closing speed <sup>(2)</sup>	5.5 sec
Weight of the housing	210 kg
Weight of the arm barrier (beam)	80 kg
Weight of the arm	57 kg for version M1 50 kg for version N1
Weight of the supports	264 kg for version M1 380 kg for version N1
MCBF (Mean Cycle Between Failure)	<b>5,000,000</b> cycles, in compliance with recommended maintenance
IP rating	IP44
	Complies with European standards.

(1) Not to be connected to a floating network or to a high-impedance earthed industrial distribution network.

(2) Adjustable through the control board.

## SURFACE TREATMENTS

- Zinc-coated internal mechanical parts.
- Complete body (*housing, base plate, cover and doors*): zinc dusting + epoxy structured paint  
Total thickness of the surface treatment exceeds 160 µm.

## WORKS TO BE PROVIDED BY THE CUSTOMER

- Adapted ground fastening.
- Power supply.
- Wiring to external peripheral equipment, if any.

**Note:** please follow the installation plan.

## OPTIONS

### ARMS

- Arm locking system - Open & closed (Configuration to be specified)
- Arm locking system - Closed position (Configuration to be specified)

### CONTROL & COMMAND

- Push button box - 2 buttons (opening / closing)
- Push button box - 3 buttons (opening / closing / stop)
- Push button box - 2 buttons + 1 switch (3 positions) <sup>(3)</sup>
- Fireman emergency opening embedded in the housing (11mm spanner wrench)
- Programmable clock - Weekly (locked open during a period of time)
- Programmable clock - Yearly (locked open during a period of time)
- Key switch on the housing (automatic / locked open / locked closed)
- Radio transmitter - 2 channels
- Radio receiver - 2 channels + antenna
- Radio transmitter - 4 channels
- Radio receiver - 4 channels + antenna
- Inductive loop for detection - Car (2 x 1 m / connexion 5m)
- Inductive loop for detection - Truck (3,50 x 1,50 m / connexion 20m)
- Presence sensor on rail - Single channel
- Presence sensor on rail - Double channel
- Photo-electric cell - Transmitter / Receiver
- Photo-electric cell - Reflex
- Support post for photo-electric cell (H = 0.7m)
- Cell mounting - Transmitter + Receiver or Reflex
- HMI colour screen with keypad for AS1620 logic board (AS1621)
- Ethernet interface (AS1622)
- SD memory card for AS1620 Ethernet board - Industrial grade
- Input / output (I/O) extension card for AS1620 logic board (AS1623)
- PLA1301 - Electronic board for input / output + Presence sensor connector
- Totalling counter (number of vehicle operations)
- Totalling counter with resetting

### SIGNALISATION

- LEDs on arm - Per pair (Flashing lights (red) when closed)
- Traffic lights (Ø 100mm) - Red/green LEDs - Supply
- Traffic lights (Ø 200mm) - Red/green LEDs - Fixed on a support post on the barrier
- Traffic lights (Ø 200mm) - Orange LEDs - Fixed on a support post on the barrier
- Traffic lights (Ø 200mm) - Red/green LEDs - Supply
- Traffic lights (Ø 200mm) - Orange LEDs - Supply
- Support post (H = 2.7m) for traffic lights - Supply
- Acoustic alarm 100dB (internal mounting) during the barrier closing movement
- LED flashing light on the cover <sup>(4)</sup>
- LED flashing light with grid on the top cover <sup>(4)</sup>
- Vandal-proof LED module on the cover

### AESTHETIC

- Other RAL colour.
- Treatment for aggressive saline environment <sup>(5)</sup>

### POWER SUPPLY

- Power supply 120V - 50/60Hz

### ENVIRONMENT

- Thermostatic heating - Heating for operation until -25°C
- Thermostatic heating - Heating for operation until -45°C

**Note:** For restrictions on options, please contact us.

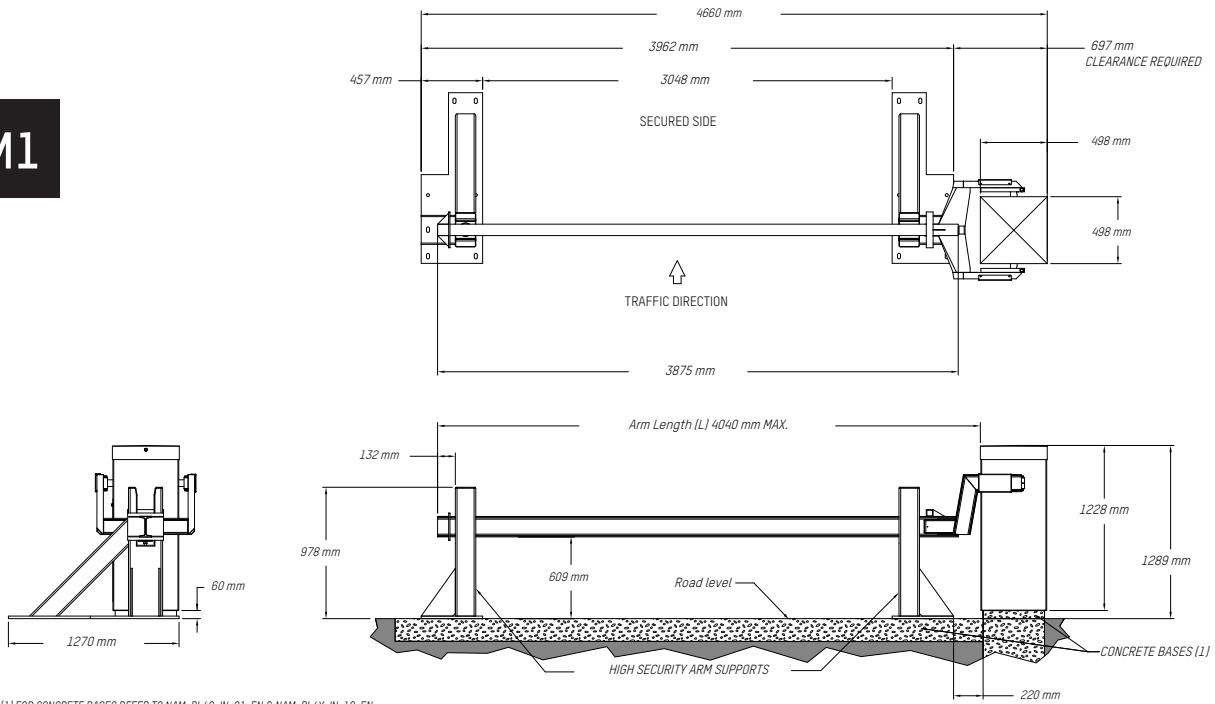
(3) Opening/Closing + switch for Automatic or Manual mode.

(4) Flashing during opening/closing movement and in open position - Off in closed position.

(5) Recommended for an installation within 10 km of the coast: sandblasting + Alu Zinc plating 80µm outside (40µm inside) + polyzinc 80µm + 80µm powder coat.

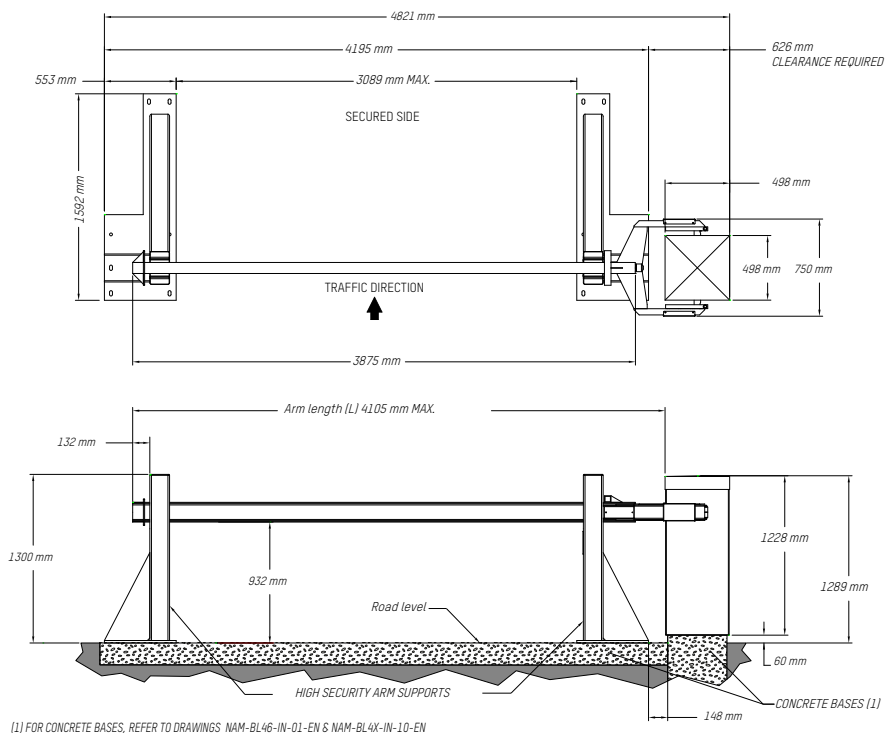
## STANDARD DIMENSIONS (MM)

**M1**



[1] FOR CONCRETE BASES REFER TO NAM-BL46-IN-01-EN & NAM-BL4X-IN-10-EN

**N1**



[1] FOR CONCRETE BASES, REFER TO DRAWINGS NAM-BL46-IN-01-EN & NAM-BL4X-IN-10-EN

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