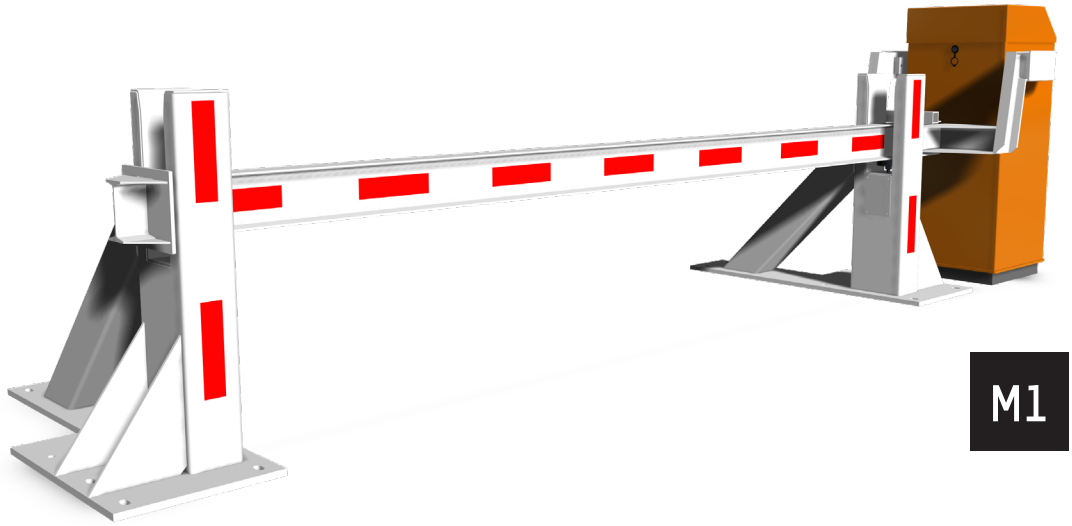
BL43 C50

Technical datasheet

Rev. 05 • Update 03/2025



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:

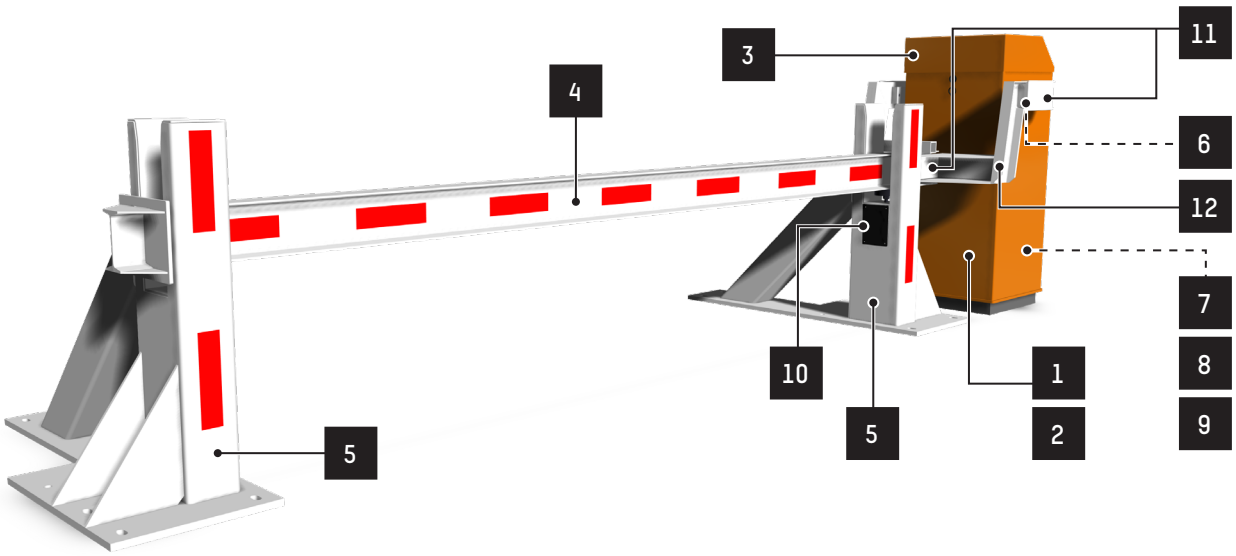
- Rapid closing for optimal safety.
- Rapid opening for use as access control device.
- Instantly reversible operating mode.

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. Sheet metal body folded and welded, from 3 to 8 mm thick.
2. Lateral and frontal doors with peripheral sealing joint and lock, ensuring easy access to the mechanism.
3. Removable top cover, with lock and key.
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 driving shaft for the arm, diameter 50 mm, mounted on 2 bearings lubricated for life.
7. Electromechanical assembly:
   - Reversible three-phase asynchronous gear motor, ensuring protection of the mechanism in the event of forced lifting of the arm due to fraudulent action.
   - Secondary transmission on gearwheel and sprocket wheel. Maintaining the arm in its two extreme positions (open and closed), as well as after a STOP command, is achieved by means of an electromagnetic brake.
   - Frequency inverter ensuring progressive accelerations and cushioned decelerations, for movement without vibration, direction inversion without jolts (reopening) and increased protection of the mechanism.
   - Electromagnet-controlled lock to maintain the open and closed positions during operation and in case of power failure.
   - Electronic limitation of the electromechanical assembly torque allowing for the immediate stop of the arm during closing in the event of an obstacle.
   - Analog sensor.
   - Balancing of the arm by 6 compression springs.
8. Parametrisable electronic control board allowing for various control options and/or additional accessories.
9. Connecting terminal block on the control board, in order to provide, for example, the status of the presence detectors.
10. Safety detection photocell (optional).
11. Cover for vandal-proof screws.
12. Reinforced bracket.
13. Mechanical locking of the arm (recommended option):
    - In raised or lowered position during operation

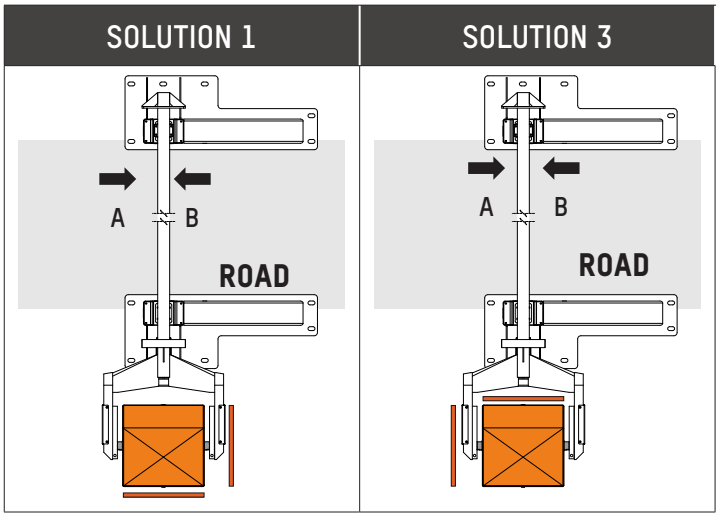
STANDARD RAL COLORS

RAL 2000 (*)	RAL 3020	RAL 7016	RAL 9010
Orange	Red	Anthracite grey	White

(*) Standard color.
All other colors must be specified when ordering.

Note : These RAL references are available for fre.

CONFIGURATIONS



STANDARD TECHNICAL CHARACTERISTICS

Power supply	Single-phase 230 VAC - 50/60 Hz + ground. [1]	
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 arm length (L)	3 m	
Wind resistance	120 km/h	
Ambient operating temperature	Between -20 and +50°C	
Relative ambient humidity	95%, without condensation	
Opening speed [2]	3.5 sec	
Closing speed [2]	5.5 sec	
Weight of the housing	220 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)	**5,000,000** cycles, in compliance with recommended maintenance.	
IP rating	IP44	
CE	Complies with European standards.	

(1) Do not connect to an isolated ground network or a high impedance earthed industrial network.
(2) Adjustable through the control board.

SURFACE TREATMENTS

- Zinc-coated internal mechanical parts.
- Door and cover: stainless steel + structured paint.
- Frame : primer + structured paint.

WORKS TO BE PROVIDED BY THE CUSTOMER

- Adapted ground fastening.
- Power supply.
- Wiring towards eventual external peripherals.

Note: 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 push buttons + 1 switch (3 positions). [3]
- Fireman emergency opening embedded in the housing (11mm spanner wrench).
- Programmable clock - Weekly or Yearly (locked open during a period of time).
- Key switch on the housing. [4]
- Radio transmitter/receiver - 2 or 4 channels.
- Inductive loop for detection - Car (2 x 1 m / connexion 5m).
- Inductive loop for detection - Truck (3,50 x 1,50m / connexion 20m).
- Presence sensor on rail - Single or double channel
- Photo-electric cell - Transmitter / Receiver or Reflex).
- Support post for photo-electric cell (H = 0.7m) .
- Cell mounting - Transmitter + Receiver or Reflex.
- Human Machine Interface 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) extention card for AS1620 logic board (AS1623).
- Totaling counter (number of vehicle operations or with resetting).

SIGNALISATION

- LEDs on arm - Per pair o 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. [5]
- LED flashing light with grid on the top cover. [5]
- Vandal-proof LED module on the cover.

AESTHETIC

- Non standard colour.
- Treatment for aggressive saline environment. [6]

POWER SUPPLY

- Power supply 120V - 50/60Hz.

ENVIRONMENT

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

Note: For restrictions on options, please contact us.

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

(4) Automatic / locked open / locked closed.

(5) Flashing when opening/closing movement and when open / Off when closed.

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

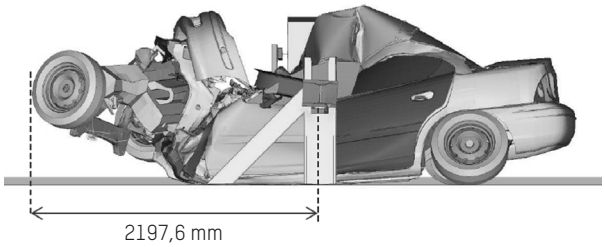
RISING SAFETY BARRIER

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



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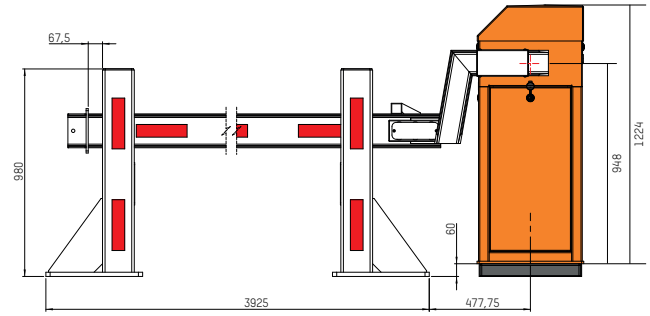
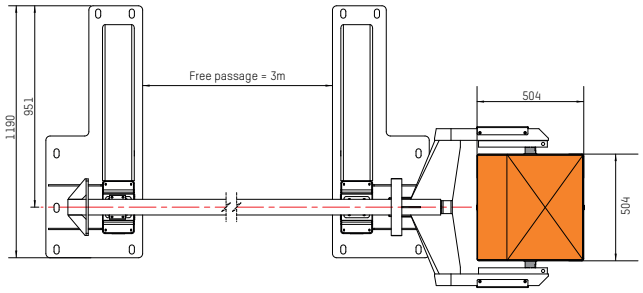
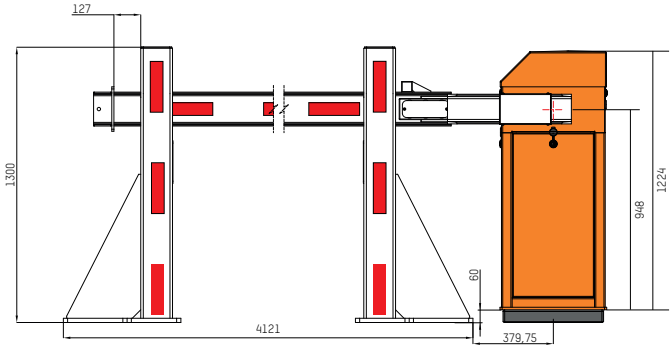
STANDARD DIMENSIONS (MM)

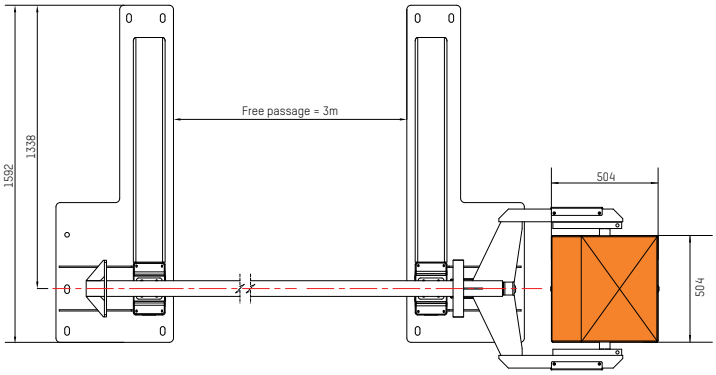
BL43 C50 - M1





BL43 C50 - N1





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