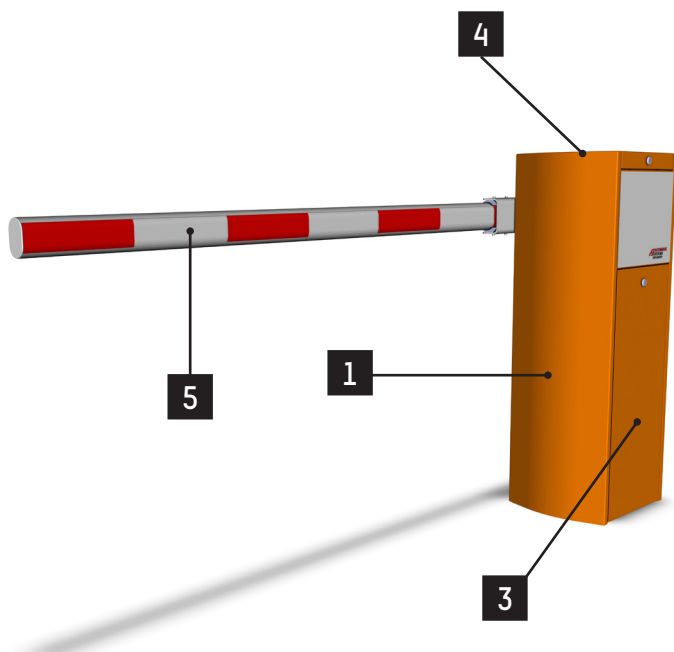


# BL 229 Toll Datasheet

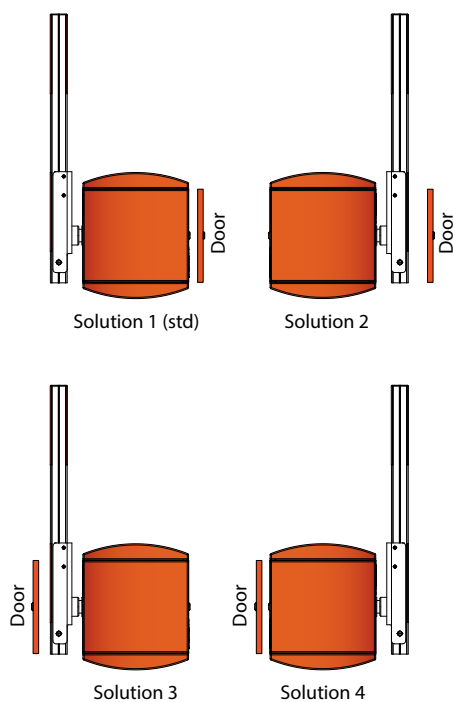
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**AUTOMATIC**  
SYSTEMS



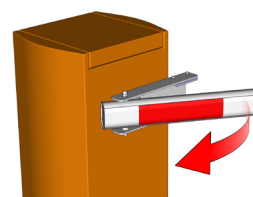
The **BL 229 Toll** barriers are designed for highway toll booths and meet numerous requirements in terms of performance, reliability, robustness, adaptability and reduced maintenance.

## CONVENTIONS




## DESCRIPTION:

1. Housing made of folded and welded sheet steel, from 2 to 6 mm thick, protected by cataphoresis and two coats of structured paint (*standard color: orange RAL2000*).
2. Internal mechanical elements treated by electrogalvanisation.
3. Side door giving access to the mechanism, with security lock.
4. Removable cover, locked by key.
5. Aluminium tube boom arm, varnished white with red reflecting stripes and end-sealing. Boom arm swing-off, avoiding damage to the barrier in case of impact on the boom arm.
6. Arm shaft mounted on two life-lubricated ball bearings. The protrusion of the shaft, centred on the housing side, allows it to be easily reversed from one side of the housing to the other: arm on the left or on the right of the framework housing.
7. Arm balancing by springs.
8. Electro-mechanical assembly including:
  - An asynchronous three-phase geared motor.
  - Movement transmission by crankshaft-rod device insuring mechanical locking of the boom arm in end positions.
  - Automatic barrier unlocking device in case of power failure, opening then being possible by hand.
  - Frequency converter ensuring progressive accelerations and controlled decelerations, for a vibration-free movement and enhanced protection of the mechanism.
  - Limit switches activated by leaf spring.
9. Lever for manual unlocking (*if not automatic mode set up*).
10. Control board enabling various additional commands and/or accessory options
11. Adjustable information contacts:
  - State of the barrier's position (*open or closed*),
  - State of the presence detectors,
  - Command for master-slave barriers (*movement of one barrier controlled by the other barrier*),
  - ...
12. Fixing frame to be fixed in a concrete base to be provided by the customer.



## STANDARD TECHNICAL SPECIFICATIONS

Electrical Power supply	Single phase 230 VAC, 50/60 Hz + Ground. <i>(Not to be connected to a floating network or to high impedance earthed industrial distribution network)</i>
Nominal power consumption	335 W <i>(at maximum speed and without options)</i>
Motor	Three-phase asynchronous 250W motor
Gearbox	Life-lubricated worm-screw speed reduction unit
Type of arm	Aluminium tube boom arm, with oval section of 80 x 53 mm
Minimum operation time	from 0.6 to 1.7 seconds
Operational temperature	Between -20 and +50°C <i>(without optional heating)</i>
Undisturbed operation by winds up to 120 km/h	
Free passage (L)	From 2,5 to 4 m
MCBF <i>(mean cycles between failures)</i>	10.000.000 with normal maintenance
Operating frequency	Up to 20,000 movements per day
Net weight	83 kg <i>(Excluding arm)</i>
IP	44
Noise emitted during operation	< 70 db (A) <i>(measured at 1 m from the surface of the machinery and at a height of 1.60 m above the ground; according to ISO3744. No hearing protection needed)</i>
	Conform to European norms.

## WORKS TO BE SUPPLIED BY THE CUSTOMER:

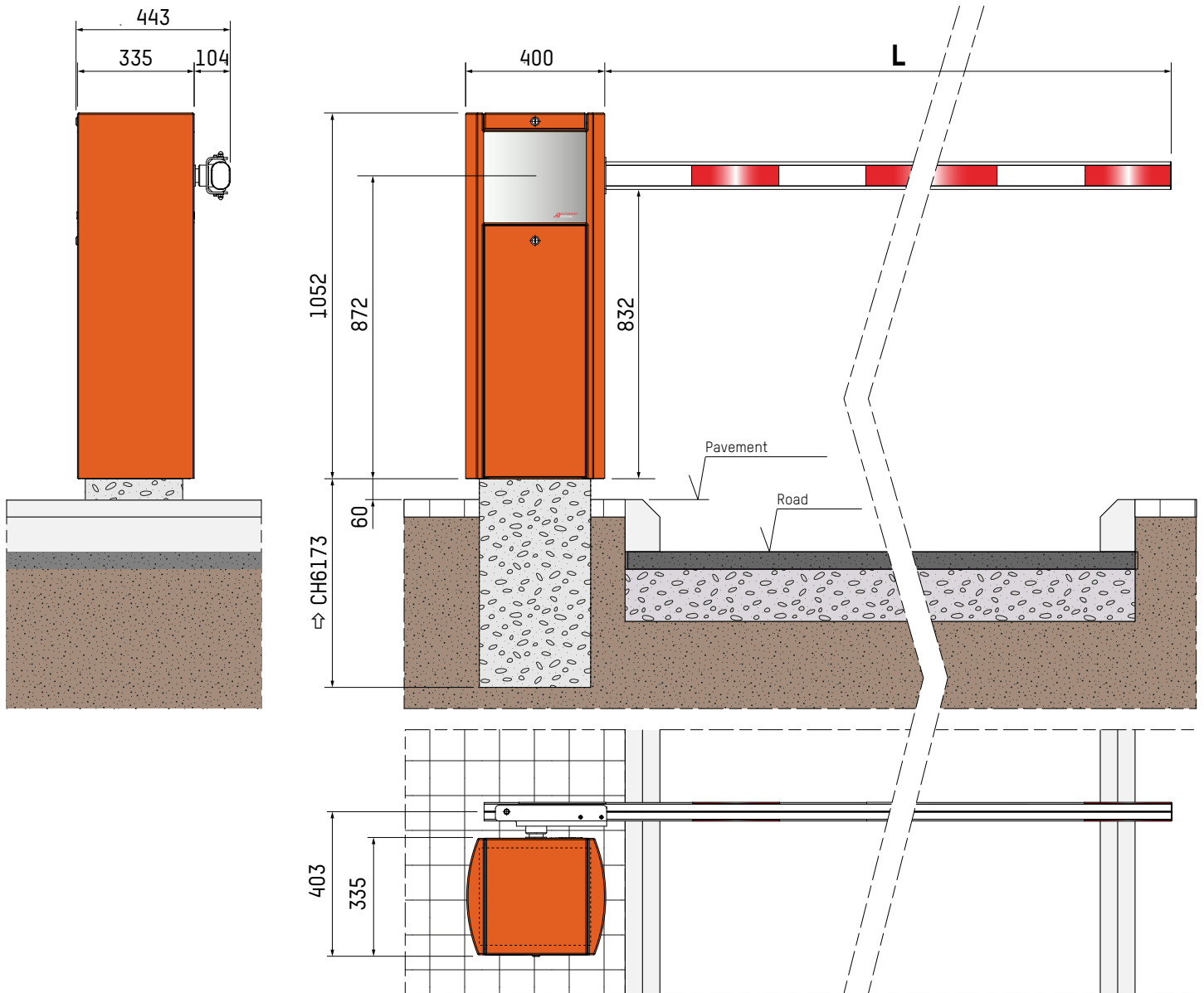
- Ground installation.
- Power supply.
- Wiring to any external devices.

Note: comply with the installation plan.

## OPTIONAL

1. Protecta® arm in carbon fibre *(polyurethane sheath and sleeve in marine-variety fibre fabric)*. (\*)
2. Automatic re-hinging device with Protecta® arm. (\*)
3. Protection switches in case of door and cover opening.
4. Push button(s) box.
5. Key switch on housing.
6. Inductive loops for cars or trucks detection.
7. Presence detector for inductive loops.
8. Photo electric cell *(reopening of the arm)*.
9. Support post for photoelectric cell.
10. Cell fixed on housing.
11. Ultrasonic detector under arm *(Protective cover included)*.
12. Totaling counter *(with or without reset)*.
13. Electronic board for Input/Output extension *(CAN)*.
14. Traffic lights *(Leds)* fixed on a post on housing.
15. Traffic lights *(Leds)*.
16. Support post for traffic lights.
17. Electronic board for third-party traffic lights control.
18. Non standard RAL colour.
19. Treatment for aggressive saline environment.
20. Raised steel base.
21. 120 VAC, 60 Hz power supply *(reduces performances)*.
22. Heating resistance 80W, for operation down to -35°C.  
*(\*) Until 3,0 meters, maximum.*

### STANDARD DIMENSIONS (MM)



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