

SPECIFICATION



# BG856 ECO SERIES MAG SPRING-FREE BARRIER GATE



## BG856 MAG SPRING-FREE BARRIER GATE

### Description

The **MAG BG856 Spring-Free Barrier Gate** offers a reliable and efficient solution for vehicle access control, engineered for simplified operation and minimal maintenance. Its innovative spring-free design allows for swift left-right arm conversion and easy adaptation to various arm lengths, reducing complexity and inventory needs.

Cost-effective and user-friendly, the MAG BG856 Spring-Free Barrier Gate is your ideal choice for entrance security automation.

### Features

**Spring-free** design allows maximum flexibility and best user experience. Left-right facing conversion is achievable within 1 minute without spring constraints.

**RedSpeed Motor** is engineered for spring-free operation, built with hardened gears to ensure reliable, cool-running for years. Integrated sensor enables precise, smooth motion control, ideal for high-traffic demands and lasting durability.

**Multi-Speed Drive.** The BG856 spring-free RedSpeed Motor ensure smooth arm motion at the end of a swift opening/closing.

**Smart Preset** simplifies setup by automatically configuring speed settings based on arm length selection, saving time and eliminating manual adjustments for optimal performance.

**Smart Memory** streamlines access control integration, minimizing unnecessary arm movements during peak hours. Ensures smoother, faster throughput, preventing bottlenecks.

**Versatile Integration** Easily integrate the BG856 with any access controller, vehicle sensor and push button with dry contact input; or use the included remote controller.

**Status Indicator LED** provides clear, intuitive visual feedback on gate status, enhancing user experience and improving nighttime visibility for safer traffic flow.

**Obstacle Detection** automatically reverses the arm upon detecting an obstruction, preventing accidents and minimizing potential damage to vehicles or injury to pedestrians.

**Arm Swing-Out** upon accidental vehicle impact, the arm detaches, significantly reducing damage to both the vehicle and the barrier gate, minimizing repair costs and downtime.

**Electronic Clutch** enables quick and effortless manual arm operation during power failure, unlike slower, hand-wheel systems, providing flexible traffic and security management.

**Advanced Controller** offers features like Error Display, Delay Auto Closing, Motorcade and more, providing exceptional adaptability to specific project requirements and optimizing efficiency.

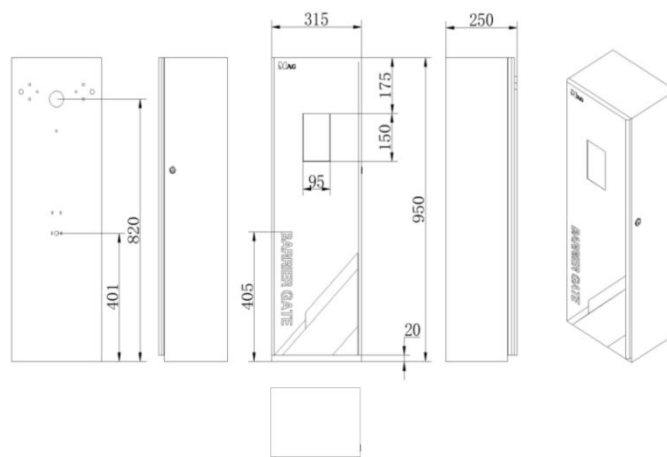
## Technical Parameter

Motor	MAG RedSpeed DC Brushless Motor
Max. Torque (arm shaft)	290 Nm
Max. Speed (motor)	650 rpm
Max. Power	180W
Operating Temperature	-35° to 70 °C
Power Supply Input	220V $\pm$ 10% AC, 50/60Hz DC Power Supply 24V 10A
Relative Humidity	< 80 %, non-condensing
Pass Through Time	1.7 to 4s, based on arm length
Arm Type and Length	BG856: Telescopic arm up to 4.5m BG856E: Extended Telescopic arm up to 6m BG856F: 90° Folding arm up to 4m
IP Rating	IP54
Mean Time Before Failure (MTBF)	3.5 million times

1. Barrier arm may have minimal jerk at end position due to manufacturing tolerance of drive mechanism and motor precision. Improper usage (e.g. using heavier or longer arm, adding extra weight on arm) may cause exaggerated jerking and accelerated wear and tear.

2. Barrier arm open and close position may vary  $\pm 1^\circ$  due to manufacturing tolerance, which will not affect functionality or reliability.

## Housing



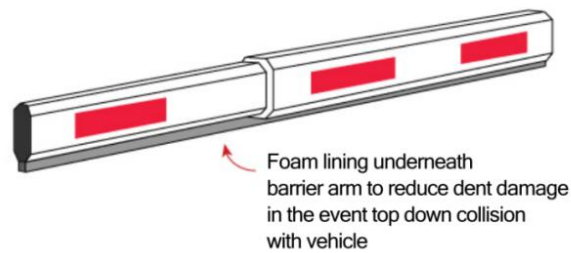
Front Door: RAL7016

Body: RAL7024

## Barrier Arm (Telescopic)

### Telescopic arm (no LED)

The arm is constructed from octagonal hollow aluminum, available in standard length of 4.5m and 6m. Red reflective adhesive is applied alternately on the arm for improved visibility at night.



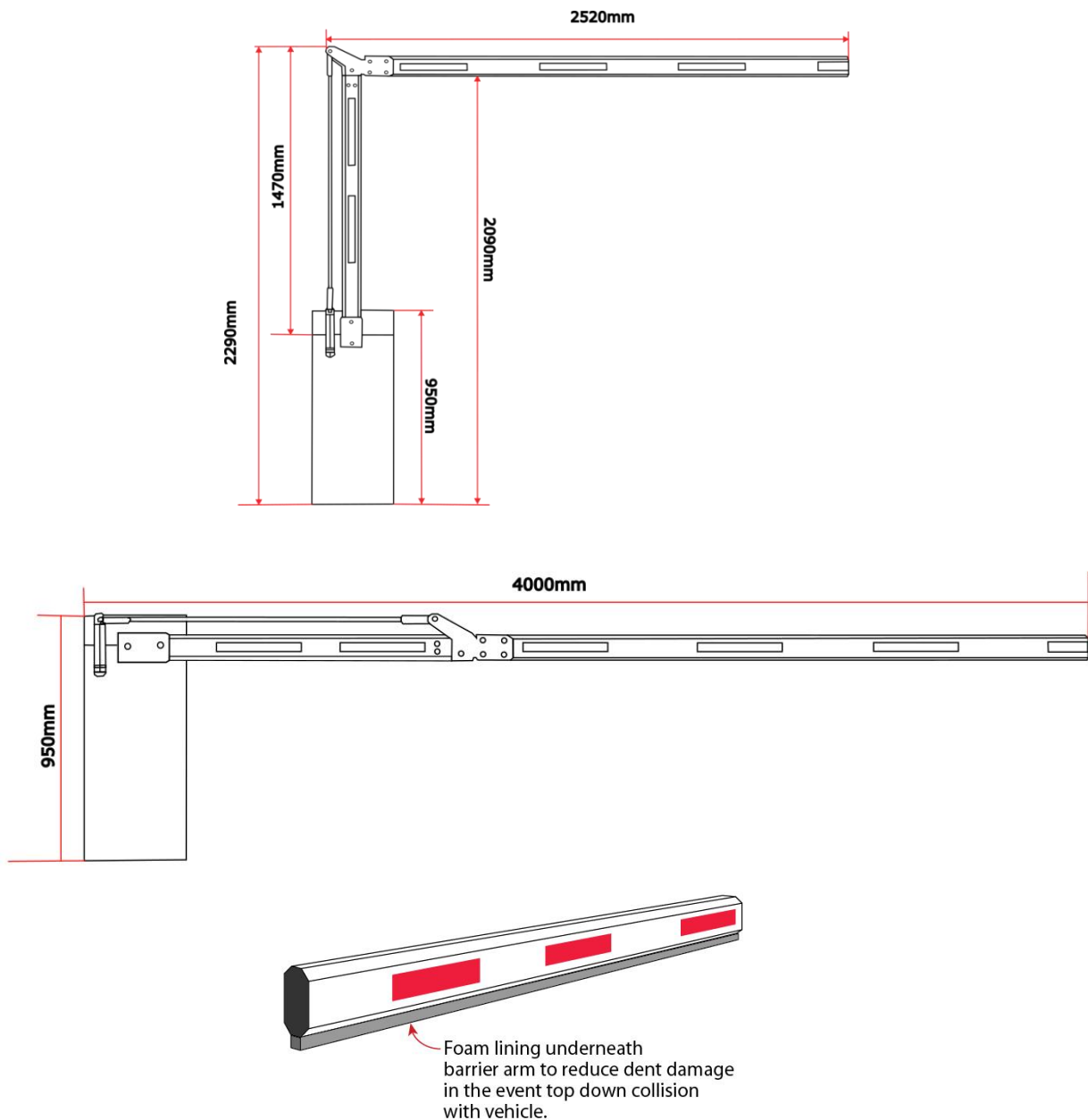
Following is the approximate length of the telescopic arm after retraction.

Full length	Retracted
4.5 meter arm	2.9 meter
6 meter arm	3.6 meter



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## 90° Folding arm



### NOTE

For indoor parking applications, a folding arm is recommended due to its space-saving design.

However, for outdoor installations exposed to harsh weather conditions, upgrading the folding arm connectors to a stainless steel variant is advisable to ensure long-term durability and resistance to corrosion.

## Arm Length and Speed

BG856 can be configured quickly to have optimum speed matching the corresponding arm length through the preset menu. The optimum pass through time is as below:

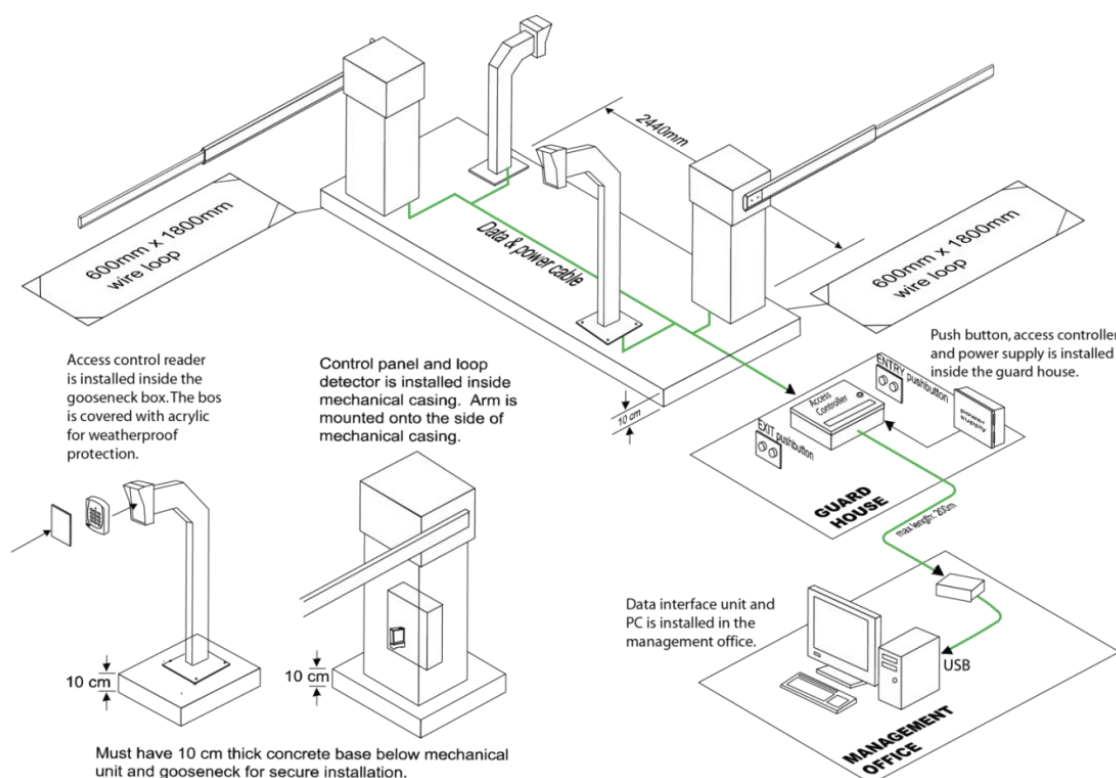
Arm Type	Arm Length	Pass Through Time (s)
Telescopic	2.5m and below	1.7
Telescopic	2.6m to 4.5m	1.8 to 2.5s
Telescopic*	4.6m to 6.0m	3 to 3.5s
90° Folding	4.0m and below	1.9

\*Additional spring is required for arm length above 4.5m.

## Typical Installation for Entrance Management\*

\*Diagram is for illustration only and does NOT reflect actual installation. Actual installation dimension varies depending on site.

With access control system:



## Ordering Information

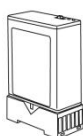
Two variations are available for BG856: Straight Arm and Folding Arm.

Model	Arm Type	Pass Through Time	Arm Swing Out
BG856 Straight Arm	Telescopic Arm, up to 4.5m	1.7 to 2.5s	Yes
BG856E Straight Arm	Telescopic Arm, 4.5 to 6m	Less than 3.5s	No
BG856F Folding Arm	90° Folding Arm, up to 4m	1.8s	No

For 90° folding arm (within 4m) and arm length above 4.5m. The required accessories are as below.

Model	Arm Type	Additional Accessories
BG856E	Telescopic Arm, 4.5 to 6m	Spring Crank, 5.5mm Spring
BG856F	90° Folding Arm, up to 4m	Folding Arm Bracket, Folding Arm Support Set

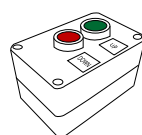
## Optional Accessories



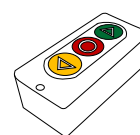
**MAG BRD05**  
**Single channel loop detector.**  
Detect presence of vehicle with Extra Wide Inductance (EWI).



**MAG BRD03**  
**DualRay and LED Display Vehicle traffic detector.**  
Detect presence of vehicle and pedestrian.



**BR\_PB2**  
Push button for manual open and close.



**BR\_PB3**  
Push button for manual open, stop and close.

**\*Product performance is based on testing in a controlled environment. Your result may vary due to several external and environmental factors.**



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