



# RISING BOLLARD BARRIERS

## GSB9000 Series

GateSet GSB9000 Series Hydraulic Rising Bollards are designed to protect sensitive areas that require high level of security. Cutting edge internal hydraulic power pack of GSB9000 provides silent and smooth operation with ease of installation and maintenance. The product is engineered to withstand high impact forces by destroying the front suspension system of the hostile vehicle. In cooperation with Horiba Mira UK, the product is pending to be tested against IWA14-1:2013 standards and expected to be awarded IWA14-1:2013, N2A Level Certification. With reinforced infrastructure and powerful hydraulic unit, GSB9000 Series is an ideal choice for high frequency heavy duty operation, achieving high level of security while maintaining an aesthetic look.

GSB9000 Datasheet v.2.0

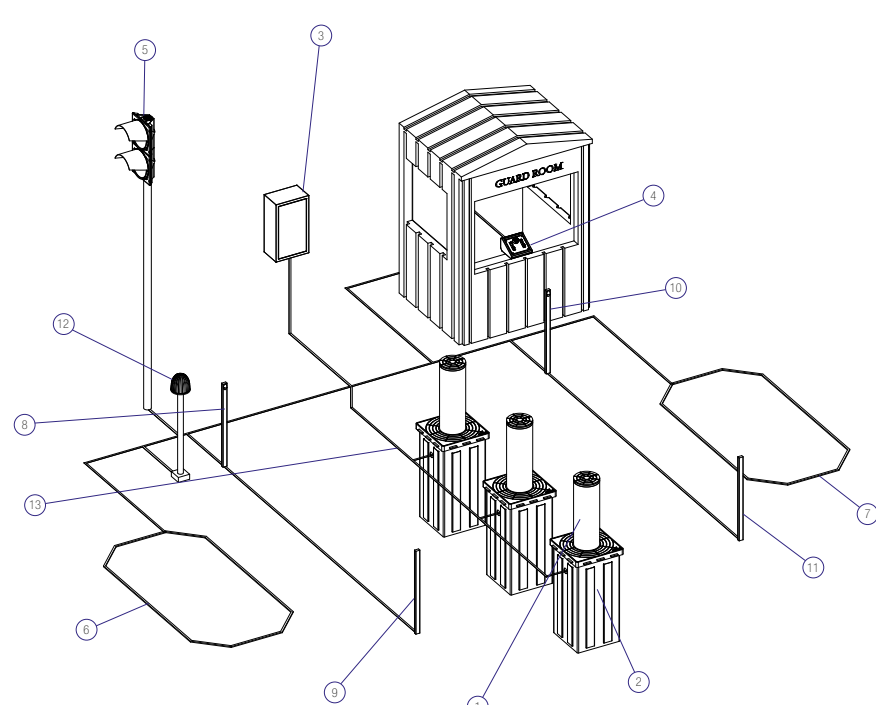
### Usage Areas

- Access Control
- Military Sites
- Government Offices
- Police Headquarters
- Research Centers
- Embassies
- Airports
- Industrial Areas
- Sensitive Sites (Subject to Ram Attacks)

### Featured Characteristics

- Cutting Edge**: State-of-the-art internal hydraulic power pack design with maximum reliability
- Efficient**: Ease of maintenance and installation combined with smooth and silent operation, thanks to internal hydraulics and modular case design
- High Impact Resistance**: GSB9000 Series Rising Bollards are designed by using the cutting-edge manufacturing computer technology to meet K12 level of IWA14-1:2013 standards. Computer aided element tests have proved that GSB9000 Series Series withstands an impact force of 7,500 kg @ 80 km/h.
- Advanced**: Schneider PLC and top quality electronics, providing simultaneous and synchronized operation of up to 30 bollards with a single electronic control cabinet
- Heavy Duty**: Suitable for intense usage at high frequency access control points, supporting 5,000+ movements in a consecutive fashion, a total 10,000+ movement per day

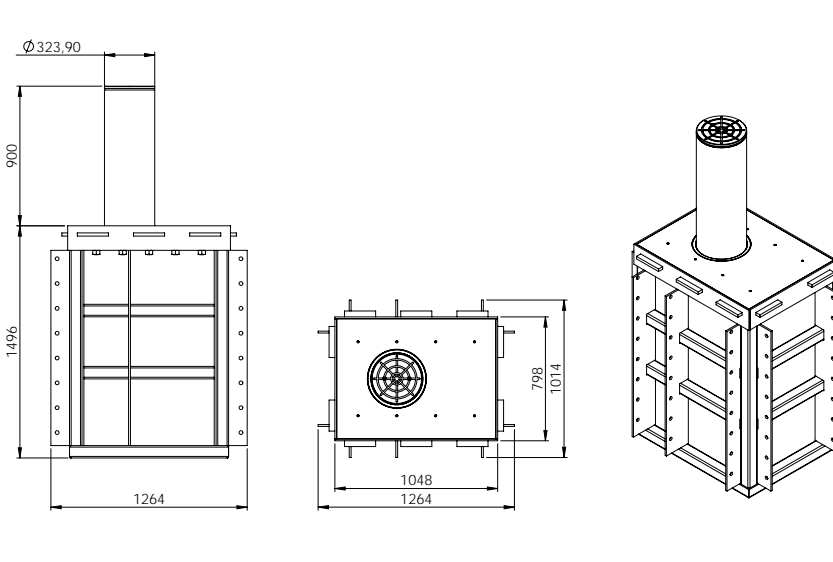
### System Components and Accessories



- Main Components**
  - Rising Bollard Core Obstacle
  - Underground Case
  - Electronic Control Cabinet
  - Control Keyboard (optional)
- Optional Accessories**
  - Traffic Lights
  - Front Loop Detector
  - Rear Loop Detector
  - Front Photocell Transmitter
  - Front Photocell Receiver
  - Rear Photocell Transmitter
  - Rear Photocell Receiver
  - Flashing Warning Light
- Connections**
  - Data Connection Cables

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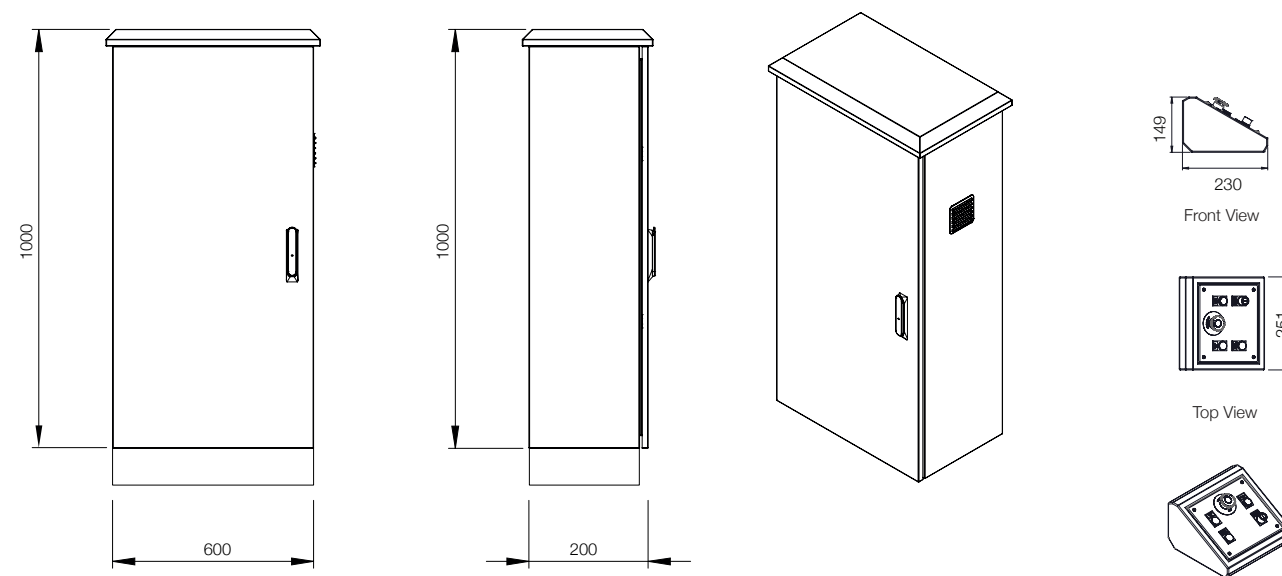
### Drawings and Dimensions



#### REMARKS

- a- Obstacle Height:  
GSB9090: 900, GSB9100: 1000, GSB9110: 1100
- b- Underground Case Depth:  
GSB9090: 1412, GSB9100: 1512, GSB9110: 1612

#### Cabinet & Keyboard



\* Above cabinet measurements are for an outdoor cabinet for standard three group configuration. Subject to change depending on design or project needs without prior notice

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### Technical Specifications

- DRIVE**: Internally Incorporated Hydraulic
- DRIVE POWER**: 50 Bar Average, 80 Bar Maximum
- CYLINDER DIAMETER**: 323.9 mm
- OBSTACLE HEIGHT**: GSB9090: 900mm, GSB9100: 1000mm, GSB9110: 1100 mm
- BOLLARD DIAMETER**: Classified
- MATERIAL**: ST52 Steel Core, Finished by 3 mm Stainless Steel Sleeve
- OUTER CASE DIMENSIONS**: GSB9090: 1100x850x1412 mm, GSB9100: 1100x850x1512 mm, GSB9110: 1100x850x1612 mm
- BEARING / MANHOLE**: 30 mm Thickness Steel Bearing, 40 mm Steel Top Plate and 6 mm Top Cover
- VISIBILITY ENHANCEMENT**: Integrated LED Stripe
- RIISING / FALLING TIME**: 7 - 8 Seconds (Adjustable)
- EMERGENCY OPERATION**: 2 Seconds (Optional with Emergency Operation Kit)
- POWER SUPPLY**: 220 V AC / 50-60 Hz. 2.2kW
- PROTECTION CLASS**: IP 67
- CONTROL PANEL**: Independent Controller Box for Simultaneous Operation of Grouped Bollards  
Schneider SR2A101BD PLC controller with Display
- IMPACT RESISTANCE**: 7,500 kg at 80 km/h (IWA14-1:2013, N2A certification pending)
- OPERATION TEMPERATURES**: - 30 °C / + 65 °C
- WORKING FREQUENCY**: Heavy Duty with 5000 Movement/Day
- POSITION DETECTION**: 2x Waterproof In-Core Proximity Sensor for Up and Down Positions
- MANUAL OPERATION**: Easy Release System with Personalized Key
- OPERATION CONTROL**: Compatible with any kind of Standard Interface, Button (standard)  
Remote Control, RFID - Proximity Card Reader, LR etc. (optional)  
Manometer Connection Access and Operation Pressure Access from Top of the Case (No need to take the case out from ground)
- EASE OF MAINTENANCE**: Mobil Atf 220 (standard)  
Emergency Stop Button (standard) Photocell, Loop Sensor (optional)
- HYDRAULIC OIL**: Traffic Lights, Flashing Light, Siren, Warning Sign, Drainage Pump (optional)
- SAFETY EQUIPMENT**: ISO 9001:2015, CE
- ACCESSORIES**: ISO 9001:2015, CE
- CERTIFICATION**: 2 Years
- WARRANTY**: 2 Years

