

# Application Note

## RFID Integrates with Automatic Rising Bollard

### A high security method for preventing vehicular access

#### Automatic Rising Bollard using RFID



Royal Castle in Stockholm

#### OVERVIEW

An automatic rising bollard is a retractable bollard, hydraulically powered. The bollards provide automated heavy duty vehicle access control and protection against ram-raiding. The bollards can be interfaced to any access control system.

TagMaster's RFID tag can be integrated with the bollards through the access control system using a relay to lower the bollards.

Automatic rising bollards can be installed in numerous applications. They are robust and a high security method of preventing vehicular access. Bollards are made to be impact resistant ensuring they will be able to do the job for which they are meant. Bollards are used to inhibit access and therefore maintain security.

Rising bollards are a great alternative to fixed posts, automatic electric gates and barriers. They allow regulation of traffic in specific areas with high vehicle flow such as pedestrian areas, parking, industrial sites and bus lanes, etc.

As we see a growth in pedestrianised zones in our town and city centres, systems need to be put in place to meet the constraints of these schemes. Such systems should be capable of prohibiting vehicles from entering designated areas whilst always allowing emergency access to the pedestrianised areas.

Another consideration is to put in place systems permitting entry to authorised vehicles, for example a designated bus service or even to permit entry to all vehicles during specified times.

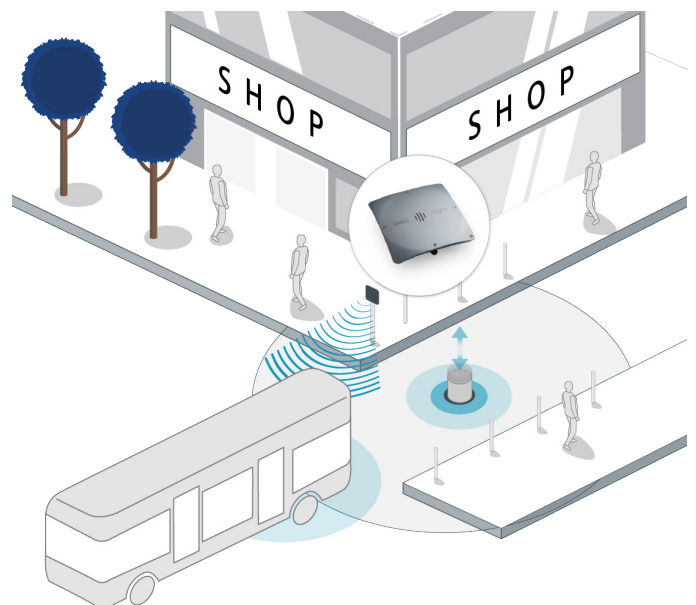
#### APPLICATIONS

- ▶ Security
- ▶ Access prevention
- ▶ Traffic regulation
- ▶ Pedestrian Zones
- ▶ Emergency Access
- ▶ Bus Lanes

#### HOW WE INTEGRATE?

All this can be achieved with TagMaster LR-6 Reader which is optimised for vehicle access that requires hands-free long-range identification up to 10 metres. With its "all-in-one" design, including integrated antenna and controller unit, the LR-6 is certified for outdoor use and is easy to install and easy to use. The built-in controller makes it possible to integrate the LR-6 reader with other products like rising bollards, gates and barriers, etc.

Together with the MarkTag Classic, a long-time proven high-end choice for vehicle identification within access control. The tag is easy to use and comes with TagMaster's field proven reliability. It is licence-free worldwide as it is using the 2.45GHz frequency band. The tag is placed behind the windshield using an easily installed WinFix.





The TagMaster LR-6 Long Range RFID readers and tags are used to prevent unauthorised vehicle access at the Royal Castle in Stockholm. When authorised vehicles approach the entry to the castle a signal from the MarkTag classic tag, positioned in the approaching car is sent to the TagMaster LR-6 reader which activate the relay for the bollards making entry of the vehicle possible.



Pedestrian zone with access for vehicles with RFID tags

#### SUMMARY

Automatic rising bollards can be used in conjunction with TagMaster's RFID tags to calm and manipulate traffic, through third party access control systems or as a standalone installation. With the long-range identification of the tags allowing the traffic to keep moving and not come to a complete standstill.

For many busy towns and cities, an increase in road traffic is a challenge that transport planners and designers must tackle. Automatic rising bollards are one way that leading-edge planners are meeting this challenge head-on. The ultimate goal is for good traffic management to keep all road users and places safe, while ensuring that traffic stays disciplined and doesn't create disruption. It should also assist people to get to their final destinations as quickly as is achievable.

#### PRODUCTS USED

##### LR6

LR-6 Reader	154600
MarkTag Classic	125500
MarkTag Outdoor	135500

##### XT1

XT-1 Reader	152500
ISO Card UHF Rain	225000
Windshield Tag	221000

##### Universal Mounting Kit

193600