

Application note

License plate reader

The following important application notes should be considered when using the License Plate Reader for vehicle access applications. The positioning of License Plate Reader will influence the correct reading performance of the camera. Sub-optimal positioning will result more incorrect reads, resulting in mostly false rejects. Since it is a camera based system direct line of sight between license plate and camera is required. The application note describes the most optimal positioning.

Installation considerations

- This document is based on a IR reflective license plate mounted onto a car
- The License Plate Reader shall have sufficient visibility at the license plate
- One License Plate Reader required per driving lane.

Barrier installation

A low positioning of the License Plate reader ensures that the license plate reader can still read the license plate of the car in front of the barrier when the vehicle is position in front of the barrier.

Position reader

- License Plate Reader is directly facing the plate.

Mounting

- Height: Max 0,6 meters [1.9 ft] above pavement level to enable the reader to read under the barrier.
- Position: 3 meters [9.8 ft] behind the barrier onto the traffic isle on the drivers's side.
- Location: Max, 0,5 meter [1.6 ft] from the road side.
- Angle: Tilt the camera about 22° degrees horizontally towards the license plate.

This mounting method can also be applied if the License Plate Reader is built into column.

Range of action

The camera has a range of action in which the camera can read the license plate. In the image this range of action is indicated as the blue zone. The detection zone with best focus is between 4 to 6 meters [13 to 19.6 ft], as indicated in figure 1.

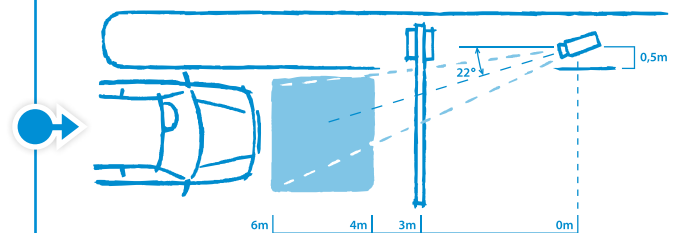


Figure 1: Range of action

Pole installation

Position reader

- License Plate Reader is directly facing the license plate.
- Onto a pole, located at the gate.

Mounting

- Height: Max 2.2 meters [7.2 ft] above ground level
- Position: Onto a pole located 0,5 mtr [1.6 ft] behind the barrier and 0,5 mtr [1.6 ft] from the roadside. This positioning ensures that it can still read the license plate of the car in front of the barrier when the vehicle is position at the stop line.
- Angle: Tilt the License Plate Reader with a 22° horizontally and a 20° vertically facing towards the license plate to ensure optimal alignment between reader and plate

Range of action.

The camera has a range of action in which the camera can read the license plate. In the image this range of action is indicated as the blue zone. The detection zone with best focus is between 4 to 6 meters [13 to 19.6 ft], as indicated in figure 2.

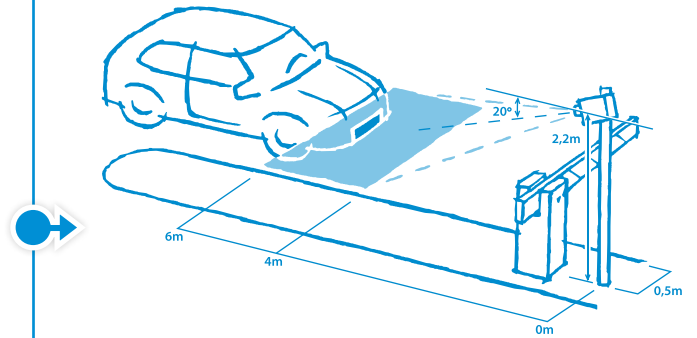


Figure 2: Pole mount installation

Overhead mounting

In circumstances where there is no possibility to mount the reader behind the barrier (e.g. roller shutter doors) we can suggest to mount the ANPR reader overhead onto the ceiling located in the middle of the driving lane, directly facing the license plate.

Note

Alternatively also long range vehicle readers might be more suitable for circumstances where it might be difficult to locate a camera angled to the license plate.