CamIQ® Modules

CamIQ Direction Detection

Highlights

» Reliable motion direction detection of people in entry and exit areas

» Configurable tolerance ranges for the given direction to avoid false alarms

» Additional processing such as recording or the sounding of an alarm signal over relay control is possible

Product Description

In many situations it must be ensured that the direction of people moving in entrance and exit areas be observed. For events it is a question of security for the attendees. In the retail sector it is a question of ensuring that articles do not exit the place of business before first being paid for at the till.

The direction detection module uses an analysis procedure to reliably determine in which direction people are moving. For this purpose a camera is installed in an upright position over the respective area. Typical behavioral patterns like hesitant people in the entrance area, or of someone waiting for other people, were borne in mind during development. In this way the distance, for example, that a person is allowed to travel in the "wrong" direction yet without having left the entrance area can be defined.

Functional Overview

» Analysis of image situations - automatic search for moving objects

» Shadow recognition - compensation for differences in brightness

» Setting of arbitrary areas to be analyzed / evaluated

» Complete integration of the analysis module in the CamIQ configuration interface

» Parameters:
   1. Authorized direction / unauthorized direction with various triggers for unrestricted use in CamIQ Satellite event processing
   2. Tolerance of the intake angle and undirected movements
   3. Shutter delay for optimization of recorded images, for crowds in the entrance area, for example

» Good scalability through possible distribution to various computers (analysis servers)

» Use of own streams for image analysis to optimize processing outlay

» Optimization of algorithms for camera installations that are directed vertically onto the monitored area

» Low processing load through the hardware-dependent optimization of algorithms in CPUs