

# MVC-IVA-IT IVA Pro Intelligent Tracking

## IVA Pro



Our mission is to help security professionals, consultants, specifiers, and end-users on their journey towards predictive solutions. We do this with AI-driven Video Analytics. We designed our video analytics around our customers. Intelligent Video Analytics (IVA) Pro Intelligent Tracking, based on AI and deep learning, is designed to give our 7100i series PTZ cameras the ability to add intelligence when the camera is in motion (while panning, tilting, or zooming)

IVA Pro Intelligent Tracking adds AI to the Intelligent Tracking. It also brings AI, with the ability to separate close objects and classify them as person and vehicle, to a globally available video analytics outside of prepositions, which can be used even when the PTZ camera is moving.

### Functions

#### Intelligent Tracking in traffic and inner city

When the Intelligent Video Analytics application in the camera detects objects or individuals, the camera can automatically activate the Intelligent Tracking feature, which controls the pan/tilt/zoom actions of the camera to track objects and keep them in view. IVA Pro Intelligent Tracking, based on deep learning, provides an AI-based version of this Intelligent Tracking feature, which automatically detects and separates upright persons and vehicles. Robust algorithms based on artificial neural networks are trained to ignore potential disruptions caused by vehicle headlights or shadows, extreme weather, and sun reflections. Thus, a PTZ camera equipped with IVA Pro Intelligent Tracking can automatically follow

- ▶ AI-based autotracking for best tracking accuracy in crowds or traffic scenes
- ▶ Class-based autotracking
- ▶ AI-based object detection and tracking while the PTZ camera is moving

persons and vehicles in traffic or inner city scenes by panning, tilting, and zooming to follow an object of interest and keep it prominently in the field of view.

#### Intelligent Tracking modes

MIC and AUTODOME cameras typically support two Intelligent Tracking modes:

- Auto mode: In this mode, the camera follows any object that has triggered an alarm in the Intelligent Video Analytics application. This mode is most useful for scenarios in which the alarm cases can be clearly defined, for example, when a vehicle is driving the wrong way or when a person is present on a highway.
- Click mode: In this mode, users can click on any object detected by the Intelligent Video Analytics application to enable the camera to track the movement of the selected object. With AI tracking, the camera is able to autotrack even in crowded scenes. For example, an operator watching a train station scene can click on a person of interest and have them automatically tracked by the camera.

#### Object classes

IVA Pro Intelligent Tracking works with both IVA Pro Buildings and IVA Pro Traffic and inherits the available classes. If only IVA Pro Buildings is available, then IVA Pro Intelligent Tracking detects, distinguishes, and tracks persons and vehicles. If IVA Pro Traffic is available, then the following object classes are available: person, bicycle, motorbike, car, bus, truck.

### Robust perimeter protection with object classification while the camera is moving

Outside of pre-positions and even while the MIC or AUTODOME camera is moving, whether on guard tours or manually, the Intelligent Video Analytics application can detect and start alarms when objects are in alarm fields. These alarm fields are defined once across all PTZ camera views. The camera can automatically trigger an alarm if any part of a field within the view of the camera becomes active while on a guard tour sweeping across the monitored areas. IVA Pro Intelligent Tracking, based on deep learning, provides an AI-version of this feature, which is automatically activated with the license, and able to detect and separate upright persons as well as vehicles. It ignores other, unwanted sources of motion from environment such as rain, snow, clouds, and leaves blowing in the wind, lighting changes, or shaking camera. Thus, it is an easy to use and robust solution for perimeter protection solutions, where the PTZ camera is constantly moving around and scanning the area.

#### Parts included

| Quantity | Component |
|----------|-----------|
| 1        | License   |

#### Technical specifications

##### Compatibility

For information on supported cameras, refer to the Bosch Video Product Selector:

[www.videoselector.boschsecurity.com](http://www.videoselector.boschsecurity.com)

##### Configuration

Configure IVA Pro Intelligent Tracking with Configuration Manager, a free software available for download from the Bosch website: <https://downloadstore.boschsecurity.com/>

#### Ordering information

##### MVC-IVA-IT IVA Pro Intelligent Tracking

AI-based Intelligent Tracking and video analytics while the camera is moving for applications in crowds and traffic scenes

Order number **MVC-IVA-IT | F.01U.412.107**

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