

# viscam

**Visual AI for camera based  
visibility estimation**



14-32



## Innovative technology

visCAM is visual AI at its best, based on a proprietary blend of computer vision and machine learning techniques to use your surveillance cameras for visibility measurements. Bullet or box cameras can be used to estimate visibility along a fixed direction, while PTZ cameras can be used in patrolling mode to return visibility measurements 360 degrees or in custom directions.

## Digital outputs

visCAM works in every weather conditions, returning minute by minute estimations no matter the cause of low visibility, being it haze, fog, heavy precipitations or dense snowfall.

visCAM data are digital by nature and can be exchanged both as telemetry and custom alerts via MQTT or https protocols, making communications with control rooms and third party decision support systems easy and straightforward.

## Your measurements, your privacy

visCAM is an edge native application, meaning that it runs directly onboard smart cameras by supported manufacturers, or local processing units installed within the camera network, like the Climate Camera Kit that we developed in collaboration with Eurotech. This keeps your images and privacy safe (visCAM is GDPR compliant) with no need to open your network towards remote cloud servers.

## TECHNICAL DATA

### Measurement performance

|                     |                           |
|---------------------|---------------------------|
| Operating principle | Software video analysis   |
| Measurement range   | 25 - 2000 m               |
| Resolution          | 25 m                      |
| Accuracy            | ±15%                      |
| Sampling frequency  | 12 Hz (images per minute) |
| Measurement cycle   | 1 min                     |

### Camera requirements

|                              |                                                                                         |
|------------------------------|-----------------------------------------------------------------------------------------|
| Camera type                  | Visible IP camera                                                                       |
| Camera format                | Box, bullet or PTZ                                                                      |
| Sensor dimension             | 1/2.8" or greater                                                                       |
| Image resolution             | fullHD 1080p (1920 x 1080 px)                                                           |
| Max operational focal length | 10 mm with 1/2.8"                                                                       |
| Camera position and angle    | Horizontal ±10°                                                                         |
| External light sources       | Presence of visible light sources in the camera view is required for night measurements |

### Output

|                      |                                                                   |
|----------------------|-------------------------------------------------------------------|
| Data communication   | 10/100 Mbps Ethernet<br>4G LTE (external router and SIM required) |
| Data output protocol | MQTT                                                              |
| Data format          | JSON formatted text                                               |
| Data channels        | Telemetry and alerts (based on custom thresholds)                 |