

# TECHNICAL SPECIFICATIONS TRAFISENSE

## INTELLIGENT THERMAL SENSOR FOR VEHICLE PRESENCE DETECTION, BIKE PRESENCE DETECTION, AND COUNTING

### HARDWARE:

- **In General:**
  - o Thermal sensor & detector board integrated in compact, esthetical housing
  - o Material:
    - Housing:
      - Aluminum, with integrated rain/sun shield (optional: additional sunshield)
      - Screw Connectors: 3-pins for Broadband over Power Line (BPL)
    - Mounting Bracket: Aluminum tube; L = 25cm, Ø = 13mm
    - Mounting Piece:
      - U-profile, L = 18cm, glass fiber reinforced polyamide
      - Attached to mounting bracket
      - Retaining straps or bolts to be used for fixation
  - o Mass ≈ 950 g (excl. cable)
  - o Height x Width x Depth (max. dimensions, housing + mounting bracket):
    - Vertically mounted about 45 cm x 16 cm x 12 cm
    - Horizontally mounted about 41 cm x 18 cm x 12 cm
  - o Diameter: about 12 cm
- **Thermal sensor Details:**
  - o Sensor type:
    - Technology: long wave infrared (7-14µm)
    - Array format: QVGA resolution
    - Pixel pitch: 17µm
    - Frame Rate: 30 FPS
  - o Lens types:



	Part Number	Focal Distance	Field of View
<b>TrafiSense BPL 7.5mm (wide angle)</b>	10-7035	7.5mm	Horizontal: 90° Vertical: 69°
<b>TrafiSense BPL 9mm (medium angle)</b>	10-7036	9mm	Horizontal: 35° Vertical: 27°
<b>TrafiSense BPL 13mm (narrow angle)</b>	10-7037	13mm	Horizontal: 25° Vertical: 19°

- **Power Supply, Outputs & Communications:**
  - o Broadband over Power Line (BPL) for power supply, communication of output status, configuration & monitoring (streaming video) via interface
  - o Input Power 24VDC via interface
  - o Current Consumption < 200mA @ 24VDC (< 250mA @ 24VDC peak at start-up)
  - o Power Consumption ≤ 5,0W (≤ 6W peak at start-up)
- **Image Compression:**
  - o Type: H.264, MPEG-4, MJPEG (dual stream)
  - o Frame Rate: up to 30FPS
  - o Resolution: QVGA
  - o Quality: up to 4Mbit/s
  - o Viewable via HTTP webpage
- **IP-addressable**

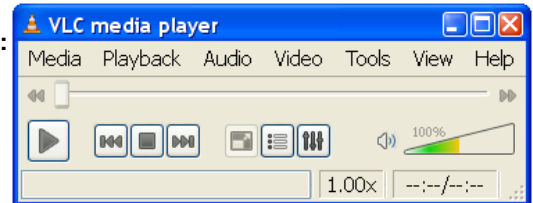
## REGULATORY ISSUES:

- **EMC:** Electromagnetic Compatibility - 2004/108/EG
- **FCC:** FCC Part 15 class A
- **Shock & Vibration:** NEMA II specs
- **Materials:** all weatherproof (UV-resistant)
- **Protection Grades:** Housing = IP68, Connectors = IP67
- **Temperature Range:** from -34°C to +80°C
- **Humidity:** up to 95% non-condensing



## SOFTWARE:

- **TCT (Traficon Configuration Tool) on PC with LAN connection:**
  - o Configuration via JPEG Snapshot
    - Vehicle Presence Detection Zones:
      - Max. 24 “virtual loops” per TrafiSense for vehicle presence
      - Virtual loops for vehicle presence detection can be made direction sensitive
    - Bike Presence Detection Regions:
      - Max. 4 “virtual regions” per TrafiSense for bike presence
      - Virtual loops for data collection are always direction sensitive
    - Output Assignment:
      - Max. 16 detection outputs available per TrafiSense
      - An output can be assigned to multiple zones (logical functions: and, or)
      - Select “close on event” (= default setting) or “open on event”
  - o Output generation via interface TI x-stream EDGE (4 outputs, more outputs via expansion boards; also compatible with PIM module for SDLC to controller)
  - o View Detection via H.264, MPEG-4 or MJPEG Streaming Video
- **VLC or QuickTime Media Player on PC with LAN connection:**
  - o View streaming video
  - o Record streaming video
  - o Playback streaming video



## CONNECTION TRAFISENSE BPL – INTERFACE:

- **Recommended type of cable:** power cable, signal cable or STP cable, UV resistant
- **Cable diameter\*:** 4-9mm
- **Maximum cable length\*\*:** 300m /900ft
- **Required number of wires:** 3 (+, -, PE)
- **Wire diameter\*\*\*:**
  - o Min. 0,64 mm (0,32 mm<sup>2</sup>, AWG22) for up to 120m/360ft cable length
  - o Min. 0,8 mm (0,50 mm<sup>2</sup>, AWG20) for up to 200m/600ft cable length
  - o Min. 1 mm (0,75 mm<sup>2</sup>, AWG18) for up to 300m/900ft cable length
- **Note:** cable is not included

\* Determined by the cable gland of the connector

\*\* Highly depends on cable quality and local conditions, i.e. local sources of interference

\*\*\* Significant voltage drop possible. Resistance of wire may not be more than 15 ohm for DC.



YOUR CONTACT



Data subject to alternation without notice or obligation

Issue: vDEC2013