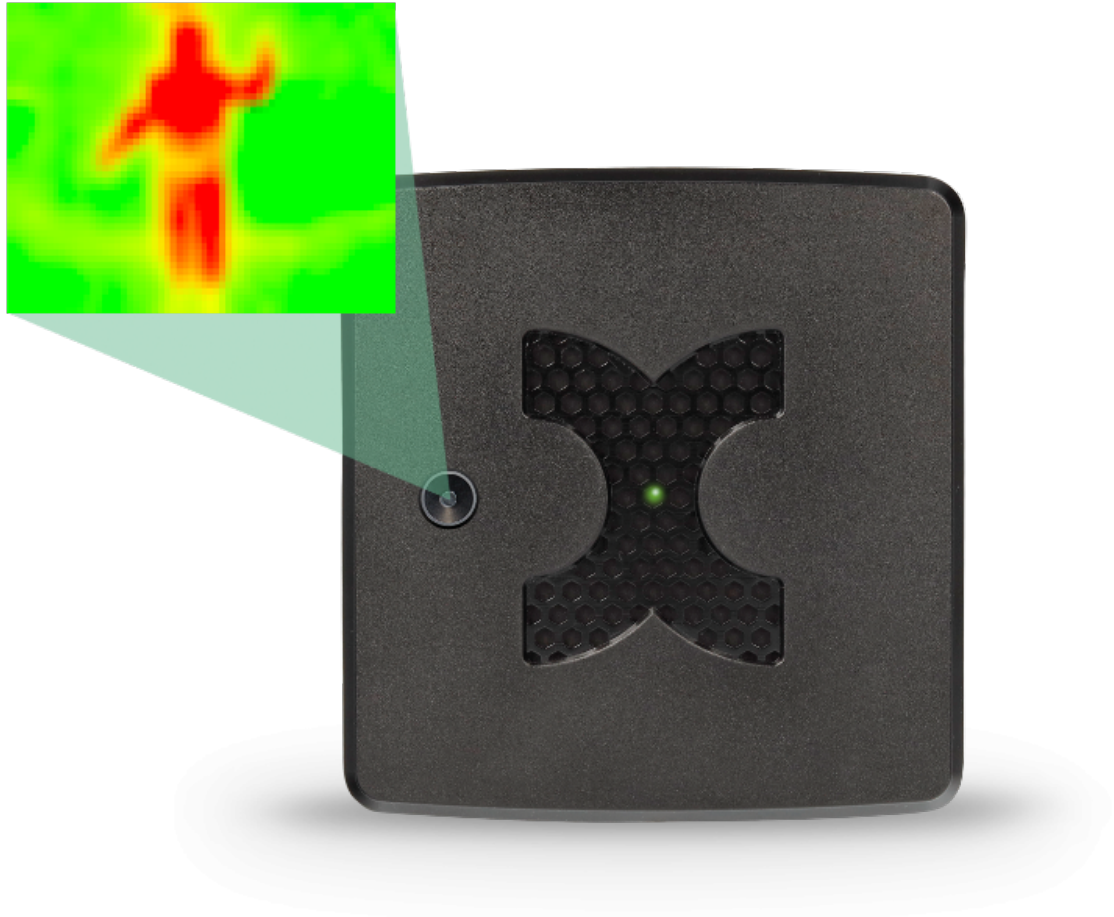# MultiSensor Thermal Image – DATASHEET



ORDER-CODES:
KMS-TI-90-B, KMS-TI-90-W, KMS-TI-90-B-BLE, KMS-TI-90-W-BLE, KMS-TI-40-B, KMS-TI-40-W, KMS-TI-40-B-BLE, KMS-TI-40-W-BLE

| | |
|---|---|
| **Function** | MultiSensor for room/area monitoring and early fire detection |
| **Integrated software** | KentixONE via integrated web server (HTTPS) |
| **Sensor – temperature** | Measuring range -40 to 85°C (accuracy ± 0.5°C) |
| **Sensor – Relative humidity** | Measuring range 0 to 100% (accuracy ±3%) |
| **Sensor – dew point** | Calculated in °C |
| **Sensor – IR Thermal Array** | 1024 pixel infrared array, measuring range -40 to 1,000°C, detection cone depending on type: 40° or 90°, range up to approx. 5m,<br>Measurement: temperature image, movement/direction of movement, object detection |

| | |
|---|---|
| **Sensor – Vibration** | 3-axis accelerometer with position detection (sensitivity adjustable), measuring range 0.25-5G |
| **Sensor – Carbon monoxide (CO)** | 0-1,000ppm measurement ± 10%Internal resolution: 20-1,000ppm (0-100%), lifetime 10 years |
| **Sensor – Air Quality (VOC)** | Measurement according to IAQ (Index for Air Quality), IAQ value 0-500 according to IAQ table*. |
| **Sensor – air pressure** | Measuring range 300 – 1,100hPa, altitude |
| **Sensor – External alarm inputs** | 2 x alarm input (e.g. armed-active, continuous-active alarming)Wiring with potential-free contacts via separate KIO3 power adapter |
| **Signal generator** | 85dB, 2.3kHz |
| **External message outputs** | 2x signal output (e.g. armed-active alarm, continuous-active alarm)<br>Wiring via separate KIO3 power adapter with relay outputs |
| **LED** | ALARM (red), RUN (green), LINK/ACT to LAN socket |
| **Ethernet with PoE** | 10/100Mbit (Default IP: 192.168.100.222)<br>Power supply via PoE Class 2, power consumption approx. 2W |
| **SD card** | Integrated Micro SD card holder as additional memory for image recording, up to 128 GB |
| **SNMP** | SNMP V2/3 (write/read), SNMP Traps (Simple Network Management Protocol) |
| **ReST API** | ReST API with JSON objects (HTTPS), webhooks with free data structure |
| **KENTIX system socket** | RJ45 jack for connecting external expansion modules |
| **Housing** | Material: PS 90 x 90 x 45 mm Weight approx. 100g<br>Colors: White, Black |
| **Environmental conditions** | Temperature 0 – 50°C ; Ideally 18 – 24 °C Humidity 5-95%, non-condensing |
| **Types** | KMS-TI-40-B (Black housing, 40° optics)<br>KMS-TI-40-W (White housing, 40° optics)<br>KMS-TI-90-B (Black housing, 90° optics)<br>KMS-TI-90-W (White housing, 90° optics) |
| **Scope of delivery** | Mounting bracket, mounting material, SlimLine cable 3m |
| **Accessories** | PoE Injector (KPOE150S)<br>Power adapter with power supply (KIO3)<br>Leakage sensor (KLS03) |
| **Exams** | CE |

# Thermal image sensor field of view

## 40° optics (ART: KMS-TI-40-B/W)

| Measuring distance | Area | Measuring grid |
|---|---|---|
| 1m | 73 x 73cm (0,53sqm) | 2,27 x 2,27cm |
| 2m | 145 x 145cm (2,12sqm) | 4,55 x 4,55cm |
| 3m | 218 x 218cm (4,55sqm) | 6,82 x 6,82cm |
| 4m | 291 x 291cm (9,10sqm) | 9,10 x 9,10cm |

## 90° optics (ART: KMS-TI-90-B/W)

| Measuring distance | Area | Measuring grid |
|---|---|---|
| 1m | 200 x 200cm (4,00sqm) | 6,25 x 6,25cm |
| 2m | 400 x 400cm (16,00sqm) | 12,50 x 12,50cm |
| 3m | 600 x 600cm (36,00sqm) | 18,75 x 18,75cm |
| 4m | 800 x 800cm (64,00sqm) | 25,00 x 25,00cm |

# Measurement of air quality according to IAQ Index*

| Air index | Air quality | Effects (long-term exposure) | Proposed measure |
|---|---|---|---|
| **0 - 50** | Excellent | Clean air; the best for the well-being | No measures required |
| **51 - 100** | Good | No irritation or effects on well-being | No measures required |
| **101 - 150** | Lightly soiled | Reduction of the well-being possible | Ventilation proposed |
| **151 - 200** | Moderately dirty | Clearer irritation possible | Increase ventilation with clean air |
| **201 - 250** | Heavily soiled | Depending on the type of VOCs, exposure can lead to effects such as headaches | Improve ventilation |

| | | | |
|---|---|---|---|
| **251 – 350** | Heavily soiled | More serious health problems possible if harmful VOCs are present | Contamination should be identified when level is reached even without people present; maximize ventilation & reduce presence |
| **> 351** | Extremely dirty | Headache, additional neurotoxic effects possible | Contaminants must be identified; avoid presence in the room and maximize ventilation |