

Thermal Tube Bi-Spectral 4MPx (9.7 / 8 mm)

Art.-Nr. IPCA64581D

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VIGILANT AT NIGHT & IN THE FOG

All objects (including living beings) emit invisible infrared heat radiation. The warmer the object, the stronger the radiation. The thermal camera records the radiation and generates a thermal image from it. Unaffected by influences that can interfere with an optical camera, e.g. darkness, fog or branches - for sound images around the clock.

Perimeter protection: precise detection of the intruder

Thermal imagery provides crucial details under almost all light, weather and environmental conditions. In this way, the location of people and vehicles are reliably pinpointed.

Highest alarm accuracy

The thermal imaging camera uses AI-assisted VCA object detection to distinguish people and vehicles from clutter. This minimises false motion alarms caused by leaves in the wind, etc.

Twice the security: Thermal and optical sensor

The thermal lens with 18° viewing angle is suitable for detection (Is there a car?) up to 200 m. The optical lens, with 39.5° viewing angle, is used to detect the objects located in the thermal image (Which car?).

Temperature measurement & early fire detection

The camera detects the slightest temperature fluctuations. It detects heat development, embers and warns of incipient fires (cf. fire detectors).

Recordings are saved on local microSD card, ABUS recorder or via video management software. The camera can be conveniently accessed via the ABUS Link Station app.

Technologies

- Thermal imaging camera (thermal camera) and optical camera in one system (dual sensor: thermal + optical image)

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sensor)

- Resolution thermal: 256 x 192 pixels to detect the natural heat radiation emitted by all objects and living creatures and localise specific heat sources
- Resolution optical: 4 MPx (2,688 x 1,520 @ 25 fps) for accurate surveillance images and for identifying people and objects located in the thermal image, for example
- Stalwart guardian: Thermal imaging complements optical surveillance in perimeter protection (approach area surveillance) when detecting intruders in total darkness and adverse environments (e.g. forest, fog)
- Security camera with longer focal length (9.7 mm thermal, 8 mm optical) for precise detection of people and objects at long distances: A person/car is detected at a distance of up to 80 m/200 m
- Perfectly precise: Thermal imaging provides highly accurate object detection (human/vehicle) and reduces the number of motion alarms by accurately distinguishing between people/vehicles and disturbances (branches, light, weather, etc.)
- Temperature measurement, early fire detection: The camera sees heat and reports dangerous temperatures, temperature rises and temperature differences as an optical fire detector (fire alarm) (e.g. hazardous goods warehouse, silo)
- IR LEDs for clear optical image results in the dark (up to 30 m range)
- Strong image compression (Dyn. GOP, H.265, H.264, MJPEG) for low storage space requirements
- microSD card slot for internal data storage; 12 V DC & PoE (802.3af)

Technical data - Thermal Tube Bi-Spectral 4MPx (9.7 / 8 mm)

| | |
|---|---|
| Alarm input (NO/NC) | 2 |
| Alarm output | 2 |
| Alarming | Flash, Loudspeaker, Alarm Out, Email, FTP |
| Aperture at minimum illumination (colour) | F1.6 |
| Audio | Integrated: Loudspeaker; Connectable: Microphone, Loudspeaker |
| Backlight compensation | WDR, BLC |
| Compatible with | ABUS NVR, ABUS Link Station App, ABUS CMS |
| Compatible with ABUS Link Station | Yes |
| Compatible with Comfion | No |
| Compatible with Secoris | No |
| Compatible with Secvest | No |
| Compatible with wAppLoxx | No |
| Compatible with wAppLoxx Pro | No |
| Connections | 1 x RJ45, 1 x DC, 2 x alarm in, 2 x alarm out, 1 x audio in, 1 x audio out, 1 x RS485 |
| DC voltage supply | 12 (+/-25 %) V |
| Day/night switching | ICR/Color/B/W |

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| | |
|------------------------------------|---|
| Design | Tube |
| Digital zoom | Yes |
| Dimensions | (LxWxH) 321x106x107 mm |
| Dynamic range (WDR) | 120 dB |
| Electronic shutter | 1/3 - 1/1000000 s |
| Encryption | HTTPS, TLS 1.1/1.2/1.3 |
| Export list number | 6A003B4B |
| Focal length | 8 mm |
| Focal length (thermal) | 9,7 mm |
| Frame rate | 1/16, 1/8, 1/4, 1/2, 1, 2, 4, 6, 8, 10, 12, 15, 16, 18, 20, 22, 25 fps |
| Functions | Flashing light alarm, acoustic alarm, audio exception alarm, dynamic fire detection |
| Gross weight | 1,5 kg |
| Height | 107 mm |
| Horizontal viewing angle | 39,5 ° |
| Horizontal viewing angle (thermal) | 18 ° |
| Housing material | Metal |
| ICR day/night function | Yes |
| IP protection class | 67 |
| IR LEDs | Yes |
| IR range (up to) | 30 m |
| Image enhancement | WDR, BLC, 3D DNR |
| Image sensor | 1/2.7" Progressive Scan CMOS |
| Image sensor (thermal) | Vanadium Oxid Uncooled Focal Plane Arrays |
| Installation type | Ceiling, Wall |
| LAN network access | RJ45 10M/100M self-adaptive |
| Language of instructions | DE, UK, FR, NL, DK, IT |
| Length | 321 mm |
| Lens | Fixed |
| Loudspeaker | Yes |
| Max. humidity | 95 % |
| Max. operating temperature | 65 °C |
| Max. resolution @ frame rate | 2688 x 1520 @ 25 fps |
| Microphone | No |
| Min. focus distance (thermal) | 3,5 m |
| Min. operating temperature | -40 °C |
| Minimum illumination (IR) | 0 lx |
| Minimum illumination (colour) | 0,01 lx |

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| | |
|---|---|
| Motion detection | No |
| NETD | < 40 mK (25°C, F1.1) |
| Net weight | 1,3 kg |
| Network camera protocols | IPv4/v6, HTTP, HTTPS, FTP, SFTP, SMTP, UPnP, DNS, DynDNS, NTP, RTP, SRTP, RTSP, TCP, UDP, DHCP, ABUS Server, P2P, QoS, 802.1X, IGMP, Bonjour, PPPoE, SNMP |
| Noise reduction | 3D DNR |
| Number of IR LEDs | 2 |
| Number of streams | 2 |
| Number of users | 32 |
| OSD language | DE, UK, FR, NL, DK, IT |
| Optical zoom | No |
| Other functions | Object classification person/vehicle |
| PSTI conformity given | Yes |
| PSTI conformity required | Yes |
| Pixel pitch | 12 µm |
| Pixels (effective) | 2688(H) x 1520(V) pixel |
| PoE standard | IEEE 802.3af |
| Power consumption | 700 mA |
| Private zones | 4 |
| Range VCA (human / vehicle) | 80 meters / 200 meters |
| Resolution | 4 MP |
| Resolution (thermal) | 256 x 192 |
| Resolution modes | Stream 1: 2688 x 1520 @ 25 fps, Stream 2: 704 x 576 @ 25 fps |
| Resolution modes (thermal) | Stream 1: 1280 x 720 @ 25 fps, Stream 2: 704 x 576 @ 25 fps |
| Spectral range | 8 – 14 µm |
| Storage medium | microSD card (32 GB pre-installed, max. 256 GB) |
| Supported browsers | MS Edge, Mozilla Firefox, Google Chrome |
| Technology | IP |
| Temperature measurement | 21 measuring rules (10 measuring points, 10 measuring areas, 1 measuring line) |
| Temperature measurement accuracy | +/- 8 °C |
| Temperature measurement range (1 x 1 m / 0.2 x 0.2 m) | 160 meters / 32 meters |
| Temperature measuring range | -20 – 150 °C |
| Vertical viewing angle | 22 ° |
| Vertical viewing angle (thermal) | 13,5 ° |
| Video Content Analysis (VCA) | Thermal: 8 VCA rules (intrusion, tripwire, area entry, area exit), object classification person/vehicle |

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| | |
|-------------------------|---|
| Video compression | Stream 1: H.264, H.265, Stream 2: H.264, H.265, MJPEG |
| Video network bandwidth | 256 kBit/s - 16 MBit/s |
| White balance | AWB, manual, blocked, various macros |
| Width | 106 mm |