

Thermal Dome Bi-Spectral 4MPx (3.6 / 4.3 mm)

Art.-Nr. IPCA54581B

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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 50° viewing angle is suitable for detection (Is there a car?) at medium distance. The optical lens with 84° 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, nests of embers or 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.

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- Thermal imaging camera (thermal camera) and optical camera in one system (dual sensor: thermal + optical image 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 smaller focal length (4.3 mm thermal, 3.6 mm optical) for precise detection of living beings and objects in a wider monitoring area (viewing angle: 50°/84° thermal/optical)
- 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 15 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 Dome Bi-Spectral 4MPx (3.6 / 4.3 mm)

Alarm generation	Flash, Loudspeaker, Alarm Out, Email, FTP
Alarm input (NO/NC)	1
Alarm output	1
Aperture at minimum illumination (color)	F1.6
Article program	Professional
Audio	Integrated: Loudspeaker; Connectable: Microphone, Loudspeaker
Backlight compensation	WDR, BLC
Camera type	Dome
Colour	white
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

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Technical data - Thermal Dome Bi-Spectral 4MPx (3.6 / 4.3 mm)

Connections	1 x RJ45, 1 x DC, 1 x alarm in, 1 x alarm out, 1 x audio in, 1 x audio out, 1 x RS485
Construction type of device	Dome
Current consumption	550 mA
DC power supply	12 (+/-25 %) V
Day/night switching	ICR/Color/B/W
Depth	139 mm
Digital zoom	Yes
Dimensions	(LxWxH) 139x139x128 mm
Dynamic range (WDR)	120 dB
Electronic shutter	1/3 - 1/1000000 s
Encryption	HTTPS, TLS 1.1/1.2
Export list number	6A003B4B
Focal length	4,3 mm
Focal length (thermal)	3,6 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
Gross weight	1.2 kg
Height	128 mm
Horizontal viewing angle	84 °
Horizontal viewing angle (thermal)	50 °
Housing material	Metal
ICR day/night function	Yes
IR LEDs	Yes
IR range (up to)	15 m
Image optimization	WDR, BLC, 3D DNR
Image sensor	1/2.7" Progressive Scan CMOS
Image sensor (thermal)	Vanadium Oxid Uncooled Focal Plane Arrays
Language Manual	DE, UK, FR, NL, DK, IT
Language OSD	DE, UK, FR, NL, DK, IT
Length	139 mm
Lens	Fixed
Loudspeaker	Yes
Max. Air humidity	95 %
Max. Operating temperature	65 °C
Max. Resolution @ frame rate	2688 x 1520 @ 25 fps
Microphone	No
Min. focus distance (thermal)	0.4 m
Min. operating temperature	-40 °C
Minimum illumination (IR)	0 lx

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Minimum illumination (color)	0.01 lx
Motion detection	No
NETD	< 40 mK (25°C, F1.1)
Net weight	0.945 kg
Network bandwidth Video	256 kBit/s - 16 MBit/s
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
Network connection LAN	RJ45 10M/100M self-adaptive
Noise suppression	3D DNR
Number of IR LEDs	1
Number of streams	2
Number of users	32
Optical zoom	No
Other functions	Object classification person/vehicle
PSTI conformity given	Yes
PSTI conformity needed	Yes
Pixel distance	12
Pixels (effective)	2688(H) x 1520(V)
PoE Standard	IEEE 802.3af
Power consumption	6.5 W
Privacy zones	4
Product group	Camera
Protection class IP	66
Radio functions	Flashing light alarm, acoustic alarm, audio exception alarm, dynamic fire detection
Radio networked	No
Range VCA (human / vehicle)	28 meters / 76 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
Storage medium	microSD card (32 GB pre-installed, max. 256 GB)
Supported browsers	MS Edge, Mozilla Firefox, Google Chrome
Temperature Measuring range	-20 °C
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)	58 meters / 12 meters

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Vertical angle of view	43 °
Vertical viewing angle (thermal)	37 °
Video Content Analysis (VCA)	Thermal: 8 VCA rules (intrusion, tripwire, area entry, area exit), object classification person/vehicle
Video compression	Stream 1: H.264, H.265, Stream 2: H.264, H.265, MJPEG
Video motion detector included	No
Video system	IP
WEEE group	09
White balance	AWB, manual, blocked, various macros
width	139 mm