

- Thermographic Monitoring and Early Fire Detection in Explosion-Hazard Areas
- Enclosures for Temperature Measuring Infrared Cameras in Ex Zones 1,2, 21 and 22
- Certified for a wide Selection of Infrared Cameras
- ATEX Certified According to Latest Standards
- Protection Class IP67
- Plug & Play Installation, Enclosure is Delivered Ready-For-Use
- Available with Additional Options (Sun Shield, etc.)
- Integrated Controller with Ethernet-Switch for Fiber Optic and Copper Connections



IRCamSafe EX-AXB/C

The Ex-proof enclosures of the IRCamSafeEX-Series enable you to install infrared cameras in explosionhazard environments. The enclosures comply with the newest Ex-protection standards and they are certified for their use with a wide selection of IR camera models.

The IRCamSafe Ex-AXB/C is ATEX certified and enables the use of FLIR's uncooled IR cameras of the SC- and A-Series in the Exprotection zones 1, 2, 21 and 22.

The certification comprises the whole system which includes the enclosure as well as all components built inside of it, such as infrared camera, heater and integrated controller. This means that no additional certification is required for the operation with the above mentioned camera models.

The integrated controller is equipped with 2 fiber optic and 2 Ethernet parts. This enables a flexible network integration in staror ring-topologies.

Furthermore, the integrated controller features several digital I/O channels and sensors for temperature, humidity and pressure. Among other functions, the I/O channels enable the user to switch on/off the camera and the heater via remote control. The access is accomplished through an integrated web interface or Modbus TCP/IP.

IRCamSafe Ex-AXB/C is also supplied with a heater which effectively prevents fogging and freezing of the protection window.



Internal configuration of IRCamSafe EX-AXB/C

Features



Verification Certificate ZELM 12 ATEX 0485 X

Protection Class IP67

Protective Window made of Germanium with **DLC** Coatina



Certificated for uncooled IR Cameras of FLIR Systems' SC- and A-Series



Flame-Proof Enclosure "d"





IR monitoring with IRCamSafe EX-AXB/C in an explosion-hazard area



Infrared cameras A6XX & A3XX of FLIR Systems

Dimensions





Options





IRCamSafe EX A-Series

General Data		
Ambient Temperature Range for Operation	-20°C to +60°C	
Protection Class	IP67	
Weight	6,7 kg (without Camera and Lens)	
Empty Volume	5,06 l	
External Dimensions (without Sun Shield and Connectors)	D = 170mm, L = 408mm	
Housing Material	Nickel plated aluminium	
Surface	Powder Coated	
Protection Window	Germanium, hard-carbon coated, with coarse meshed protective grating	
Maximum Power of the Additional Heater	16W	
Operating Voltage	115V AC 60Hz/ 230V AC 50Hz or 24V DC	
Maximum Electric Connection Power	60W	
Integrated Controller	4-Port switch with 2x fiber optic LC 100Base-FX or 2x RJ45(10/100) up-links, ring-topology support for reduced cabling effort, 2 internal temperature sensors, air humidity and pressure sensor, digital output module controllable via Modbus TCP/IP or Web-Interface to enable turning the camera and heater ON/OFF	
Explosion Protection-Specific Data		
For use in EX Zone	1, 2, 21 and 22	
Ignition Protection Category	Flame-proof encapsulation "d"	
Maximum Surface Temperature	85°C, temperature class T6 for a maximum ambient temperature of 40°C 100°C temperature class T5 for a maximum ambient temperature of 60°C	
ATEX Certification (Version -AXC)	EX-Protection Gas: II 2G Ex db IIC T6-T5 Gb, EX-Protection Dust: II 2D Ex tb IIIC T85°-100° Db	
Verification Certificate	ZELM 12 ATEX 0485 X	
Valid Fixtures		
Infrared Cameras	FLIR Systems A615, A6XXsc, A3XX, A3XX	sc, Ax5, Xenics Serval-640-GigE, AT IRS-X-GigE
Lenses	For A3XX and SC3XX Models: without Additional Lens, 45° Additional Lens, $f = 10$ mm, 15° Additional Lens, $f = 30$ mm, 6° Additional Lens, $f = 76$ mm, 90° Additional Lens, $f = 4$ mm*	For A615 and SC6XX Models: 15° Lens, f' = 41,3 mm, 25° Lens, f' = 24,6 mm, 45° Lens, f' = 13,1 mm
	For Ax5 Models: Lens, $f = 7 \text{ mm}^*$, Lens, $f = 9 \text{ mm}^*$, Lens, $f = 13 \text{ mm}$, Lens, $f = 19 \text{ mm}$, (NFOV lenses on request)	For Serval-640-GigE: Lens, f = 11 mm*, Lens, f = 25 mm, Lens, f = 35 mm, Lens, f = 60 mm, Lens, f = 100 mm, Lens, f = 35-105 mm,
	For IRS-X-GigE Models: Lens, f = 7,5 mm*, Lens, f = 9 mm*, Lens, f = 11 mm, Lens, f = 13 mm, Lens, f = 19 mm,	For IRS-X-GigE Models: Lens, $f = 25$ mm, Lens, $f = 35$ mm, Lens, $f = 60$ mm, Lens, $f = 100$ mm, Lens, $f = 35-105$ mm,
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