

MOBOTIX FlexMount S15 2x 6MP/Thermal

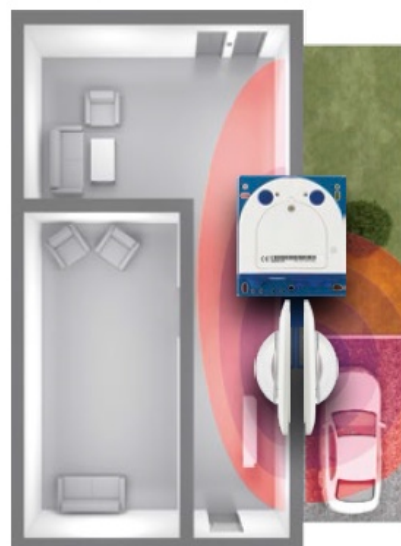
Technical specifications subject to change without notice



Optical sensor modules



Weatherproof



Indoors and outdoors

Flexible. Virtually Invisible Dual-Lens Camera.

With its unique fusion of dual sensor technology and flexmount design, the S15 covers two areas at once and is virtually invisible. The S15 has been perfectly created for customized solutions or installations where standard cameras simply won't fit.

Technical specifications subject to change without notice. For more information on the S15 and on the entire range of MOBOTIX products, such as prices, manuals, video management software for computers and iOS devices, etc., please go to www.mobotix.com > **Products**. Or contact us by phone (+49 06302 9816-103) or email (sales@mobotix.com).



Flexible Installation

The S15 core unit miniature size fits into tight spaces (ATMs, machinery, vehicles). The flexible 3 m/9.8 ft video cables make it a easy to create customized installations (see page 60).



Double Hemispheric = 360° Full Spherical Capture

This cost-effective solution can simultaneously capture and record two super-wide 360° fields of view, providing the same coverage as eight standard CCTV cameras.



White

Black

Virtually Invisible

With a diameter of only 50 mm/1.96 inch and available in both white and black, the S15 sensor modules blend in with any environment. Ideal for applications where standard-sized cameras are unsuitable.



Secure Two Areas With One Device

The two flexible video cables allow for coverage of two separate areas. Just one S15 can secure two separate rooms, an indoor and outdoor area and around corners.

Technical Data

Lens Options	Optical: B016 to B500 (L10 to L270) Thermal: L43, L65, L135	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec Thermal Sensor: 0 lux
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps, 2x 6MP: 4 fps, Thermal: 9 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio	2-way VoIP available with accessories such as the SpeakerMount
Operating Conditions	IP66, IK06, -30 to +60 °C	Internal Sensors	Temperature, microphone, illumination, shock detector
Image Processing	MxActivitySensor, VMD, image correction, backlight	Software (free of charge)	MxManagementCenter, MOBOTIX App



S15 – Technical Specification

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Camera Variants	S15 Day/Night/Thermal
Flexible and modular system: The S15 camera module (body) MX-S15D-Sec can be fitted with one or two sensor modules of choice (Day/Night/Thermal). MOBOTIX sensor cables are available from 0.5 to 3 m/1.6 to 9.8 ft.	
Sensor Module Day with 6MP Image Sensor (Color, 3072 x 2048) – white (PW) or black (BL), IP66	
Sensor Module Day with Fisheye lens B016 (103° x 77°)	MX-SM-D10-PW/BL-6MP
Sensor Module Day with Ultra Wide lens B036 (103° x 77°)	MX-SM-D20-PW/BL-6MP-F1.8
Sensor Module Day with Super Wide lens B041 (90° x 67°)	MX-SM-D22-PW/BL-6MP-F1.8
Sensor Module Day with Wide lens B061 (60° x 45°)	MX-SM-D32-PW/BL-6MP-F1.8
Sensor Module Day with Standard lens B079 (45° x 34°)	MX-SM-D43-PW/BL-6MP-F1.8
Sensor Module Day with Tele lens B119 (31° x 23°)	MX-SM-D65-PW/BL-6MP-F1.8
Sensor Module Day with Distant Tele lens B237 (15° x 11°)	MX-SM-D135-PW/BL-6MP
Sensor Module Day with Super Tele lens B500 (8° x 6°)	MX-SM-D270-PW/BL-6MP
Sensor Module Day with CS-Mount (lens not included)	MX-SM-D-CS
Sensor Module Day with CSVario lens B045-100-CS	MX-SM-D045-100-CS
Sensor Module Night with 6MP Image Sensor (B/W, 3072 x 2048) – white (PW) or black (BL), IP66	
Sensor Module Night with Fisheye lens B016 (103° x 77°) with Long-Pass Filter (LPF)	MX-SM-N10-PW/BL-6MP MX-SM-N10-LPF-PW/BL-6MP
Sensor Module Night with Ultra Wide lens B036 (103° x 77°) with Long-Pass Filter (LPF)	MX-SM-N20-PW/BL-6MP-F1.8 MX-SM-N20-LPF-PW/BL-6MP-F1.8
Sensor Module Night with Super Wide lens B041 (90° x 67°) with Long-Pass Filter (LPF)	MX-SM-N22-PW/BL-6MP-F1.8 MX-SM-N22-LPF-PW/BL-6MP-F1.8
Sensor Module Night with Wide lens B061 (60° x 45°) with Long-Pass Filter (LPF)	MX-SM-N32-PW/BL-6MP-F1.8 MX-SM-N32-LPF-PW/BL-6MP-F1.8
Sensor Module Night with Standard lens B079 (45° x 34°) with Long-Pass Filter (LPF)	MX-SM-N43-PW/BL-6MP-F1.8 MX-SM-N43-LPF-PW/BL-6MP-F1.8
Sensor Module Night with Tele lens B119 (31° x 23°) with Long-Pass Filter (LPF)	MX-SM-N65-PW/BL-6MP-F1.8 MX-SM-N65-LPF-PW/BL-6MP-F1.8
Sensor Module Night with Distant Tele lens B237 (15° x 11°) with Long-Pass Filter (LPF)	MX-SM-N135-PW/BL-6MP MX-SM-N135-LPF-PW/BL-6MP
Sensor Module Night with Super Tele lens B500 (8° x 6°) with Long-Pass Filter (LPF)	MX-SM-N270-PW/BL-6MP MX-SM-N270-LPF-PW/BL-6MP
Sensor Module Night with CS-Mount (lens not included)	MX-SM-N-CS
Sensor Module Night with CSVario lens B045-100-CS	MX-SM-N045-100-CS
BlockFlexMount Day with 6MP Image Sensor (Color, 3072 x 2048) – IP30, 0 to 50°C/32 to 122°F	
BlockFlexMount Day with Fisheye lens B016 (103° x 77°)	MX-BFM-MX-D10-6MP
BlockFlexMount Day with Ultra Wide lens B036 (103° x 77°)	MX-BFM-MX-D20-6MP-F1.8
BlockFlexMount Day with Super Wide lens B041 (90° x 67°)	MX-BFM-MX-D22-6MP-F1.8
BlockFlexMount Day with Wide lens B061 (60° x 45°)	MX-BFM-MX-D32-6MP-F1.8
BlockFlexMount Day with Standard lens B079 (45° x 34°)	MX-BFM-MX-D43-6MP-F1.8
BlockFlexMount Day with Tele lens B119 (31° x 23°)	MX-BFM-MX-D65-6MP-F1.8
BlockFlexMount Day with Distant Tele lens B237 (15° x 11°)	MX-BFM-MX-D135-6MP
BlockFlexMount Day with Super Tele lens B500 (8° x 6°)	MX-BFM-MX-D270-6MP
BlockFlexMount Day with CS-Mount (lens not included)	MX-BFM-CS-D-6MP
BlockFlexMount Night with 6MP Image Sensor (B/W, 3072 x 2048) – IP30, 0 to 50°C/32 to 122°F	
BlockFlexMount Night with Fisheye lens B016 (103° x 77°)	MX-BFM-MX-N10-6MP
BlockFlexMount Night with Ultra Wide lens B036 (103° x 77°) with Long-Pass Filter (LPF)	MX-BFM-MX-N20-6MP-F1.8 MX-BFM-MX-N20-LPF-6MP-F1.8
BlockFlexMount Night with Super Wide lens B041 (90° x 67°) with Long-Pass Filter (LPF)	MX-BFM-MX-N22-6MP-F1.8 MX-BFM-MX-N22-LPF-6MP-F1.8
BlockFlexMount Night with Wide lens B061 (60° x 45°) with Long-Pass Filter (LPF)	MX-BFM-MX-N32-6MP-F1.8 MX-BFM-MX-N32-LPF-6MP-F1.8



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BlockFlexMount Night with Standard lens B079 (45° x 34°) with Long-Pass Filter (LPF)	MX-BFM-MX-N43-6MP-F1.8 MX-BFM-MX-N43-LPF-6MP-F1.8
BlockFlexMount Night with Tele lens B119 (31° x 23°) with Long-Pass Filter (LPF)	MX-BFM-MX-N65-6MP-F1.8 MX-BFM-MX-N65-LPF-6MP-F1.8
BlockFlexMount Night with Distant Tele lens B237 (15° x 11°) with Long-Pass Filter (LPF)	MX-BFM-MX-N135-6MP MX-BFM-MX-N135-LPF-6MP
BlockFlexMount Night with Super Tele lens B500 (8° x 6°) with Long-Pass Filter (LPF)	MX-BFM-MX-N270-6MP MX-BFM-MX-N270-LPF-6MP
BlockFlexMount Night with CS-Mount (lens not included) with Long-Pass Filter (LPF)	MX-BFM-CS-N-6MP MX-BFM-CS-N-LPF-6MP
Thermal Sensor Module, NETD 50 mK, Measurement Range -40 to 550°C/-40 to 1022°F, IP66	
Thermal Sensor Module with stainless steel/aluminum housing, Germanium lens L43 (45° x 32°)	MX-SM-Thermal-L43
Thermal Sensor Module with stainless steel/aluminum housing, Germanium lens L65 (25° x 19°)	MX-SM-Thermal-L65
Thermal Sensor Module with stainless steel/aluminum housing, Germanium lens L135 (17° x 13°)	MX-SM-Thermal-L135
PTMount-Thermal, white, Germanium lens L43 (45° x 32°)	MX-SM-PTMount-Thermal-L43-PW
PTMount-Thermal, white, Germanium lens L65 (25° x 19°)	MX-SM-PTMount-Thermal-L65-PW
PTMount-Thermal, white, Germanium lens L135 (17° x 13°)	MX-SM-PTMount-Thermal-L135-PW
PTMount-Thermal, black, Germanium lens L43 (45° x 32°)	MX-SM-PTMount-Thermal-L43-BL
PTMount-Thermal, black, Germanium lens L65 (25° x 19°)	MX-SM-PTMount-Thermal-L65-BL
PTMount-Thermal, black, Germanium lens L135 (17° x 13°)	MX-SM-PTMount-Thermal-L135-BL
Thermal Sensor Module with Thermal Radiometry, NETD 50 mK, Measurement Range -40 to 550°C/-40 to 1022°F, IP66	
Thermal Sensor Module TR with stainless steel/aluminum housing, Germanium lens TR079 (45° x 32°)	MX-SM-TR079
Thermal Sensor Module TR with stainless steel/aluminum housing, Germanium lens TR119 (25° x 19°)	MX-SM-TR119
Thermal Sensor Module TR with stainless steel/aluminum housing, Germanium lens TR237 (17° x 13°)	MX-SM-TR237
PTMount-Thermal TR, white, Germanium lens TR079 (45° x 32°)	MX-SM-PT-TR079
PTMount-Thermal TR, white, Germanium lens TR119 (25° x 19°)	MX-SM-PT-TR119
PTMount-Thermal TR, white, Germanium lens TR237 (17° x 13°)	MX-SM-PT-TR237
PTMount-Thermal TR, black, Germanium lens TR079 (45° x 32°)	MX-SM-PT-TR079-b
PTMount-Thermal TR, black, Germanium lens TR119 (25° x 19°)	MX-SM-PT-TR119-b
PTMount-Thermal TR, black, Germanium lens TR237 (17° x 13°)	MX-SM-PT-TR237-b
S15 Complete Sets with one ore two sensor modules, 2m/6.6 ft sensor cables, installation accessory	S15 Sets
S15 Complete Set 1 Day (camera module + 1x MX-SM-D10-PW-6MP)	MX-S15D-Set1-6MP
S15 Complete Set 2 Day (camera module + 2x MX-SM-D10-PW-6MP)	MX-S15D-Set2-6MP
S15 Complete Set Night (camera module + 1x MX-SM-D10-PW-6MP + 1x MX-SM-N10-PW-6MP)	MX-S15D-Set3-6MP



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Camera Variants	S15 Day/Night/Thermal, S15 Sets
Hardware Functions	
Protection class S15 camera module (body)	IP66 and IK06
Sensor sensitivity in at 1/60 s /1 s	Day sensor (color): 0,1/0,005 lux Night sensor (B/W): 0,02/0,001 lux
Protection classes 6MP sensor modules	IP66 with all modules; IK04 with module L32 (B061), L65 (B119) and L135 (B237); IK05 with module L20 (B036), L22 (B041) and L43 (B079); IK07 with module L10 (B016); BlockFlexMounts: IP30/no IK class
Ambient temperature (range)	-30 to 60°C/-22 to 140°F BlockFlexMounts: 0 to 50°C/32 to 122°F
Temporary internal DVR	64 MB
Internal DVR, ex works	4 GB (microSD)
Microphone	Part of sensor module/BlockFlexMount (not CS-Mount modules) or with accessory (e.g., ExtIO or AudioMount)
Speaker	With accessory (e.g., SpeakerMount)
Passive infrared sensor (PIR)	•
Camera optics with Long-Pass Filter (LPF)	optional (only with night sensor)
Integrated temperature sensor	•
Shock detector	•
Power consumption (typical)	< 7 watts
Variable PoE class (factory default: 3)	2 or 3 (with thermal sensor module: 3)
Interfaces Ethernet/MxBus/USB	•/•/•
Schnittstellen IO und RS232	With accessory (MX-232-IO-Box)

Image Size, Frame Rates, Image Storage	
Maximum image size optical image sensor (pixels)	6,29 MP (3072 x 2048)
Maximum image size thermal image sensor (pixels)	336 x 252 (scalable up to 3072 x 2048)
Maximum frame rate (MxPEG, max. resolution)	8 fps (6MP), 4 fps (2x 6MP), 9 fps (1-2x Thermal)
CIF images with 4 GB MicroSD DVR	250,000
VGA images with 4 GB MicroSD DVR	125,000
HD images with 4 GB MicroSD DVR	40,000
QXGA images with 4 GB MicroSD DVR	20,000



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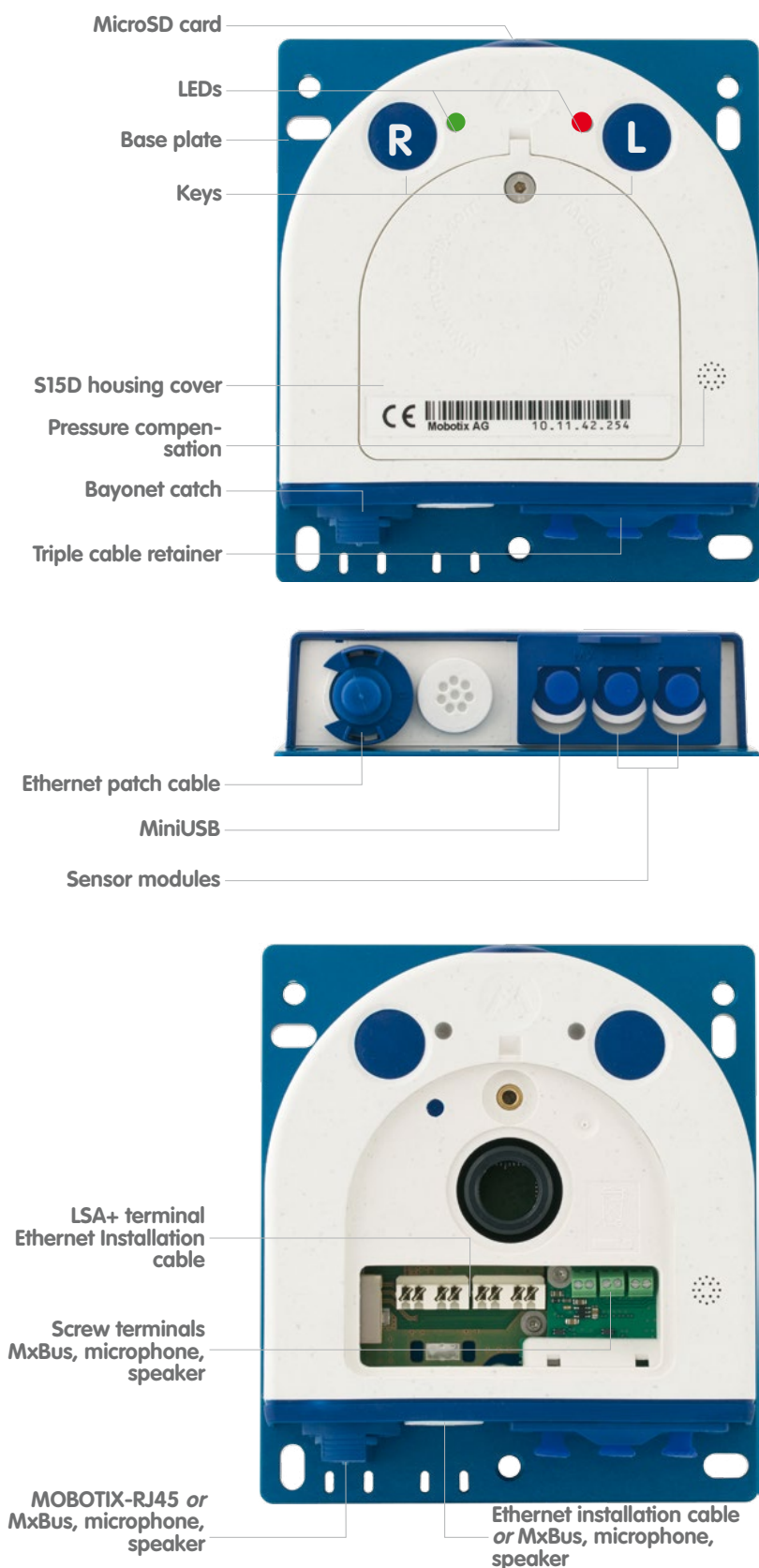
Camera Variants	S15 Day/Night/Thermal, S15 Sets
General Functions	
Door station functionalities	•
Temperature measurement of 4 pixels in the image center (Thermal Spotmeter)	• Only with thermal sensor module, camera software 4.3.4.66 or higher)
TR temperature measurement of each pixel in the whole image area	• Only with thermal sensor module TR, camera software 4.3.4.66 or higher)
Event trigger for temperatures above or below a configurable limit between -40 to 550°C/-40 to 1022°F	• Only with thermal sensor module, camera software 4.3.4.66 or higher)
Digital zoom (continuous) with panning	•
Codecs: Motion-JPEG/MxPEG/H.264 for SIP	•/•/•
Programmable exposure zones	•
Snapshot recording (pre/post-alarm images)	50
Terabyte ring buffer storage (internal/network)	•
Continuous recording with sound (0.2 to 30 fps)	•
Event recording with sound	•
Time and event control/flexible event logic	•/•
Weekly schedules/holidays	•
Web functionality (FTP, email)	•
Playback/QuadView and MultiView	•/•
Bidirectional sound in browser (with accessory)	•
Logo generator, animated	•
Master/Slave arming	•
Several scheduled privacy zones	•
Customized voice messages (with accessory)	•
VoIP telephony (audio/video, alert – with accessory)	•
Remote alarm notification (network message)	•
Signal inputs/outputs and RS232 via MxBus module	•
Programming interface (HTTP API)	•
Security Features (HTTPS/SI, IP-based access control, IEEE 802.1X network authentication)	•
Security Features (HTTPS/SI, IP-based access control, IEEE 802.1X network authentication)	•
Video Analysis	
Video motion detector	•
MxAnalytics	–
MxActivitySensor	•
Video Management Software	
MxManagementCenter/MxControlCenter/MxEasy	•/•/•
MOBOTIX App (iOS)	•

- available ex works
- not available

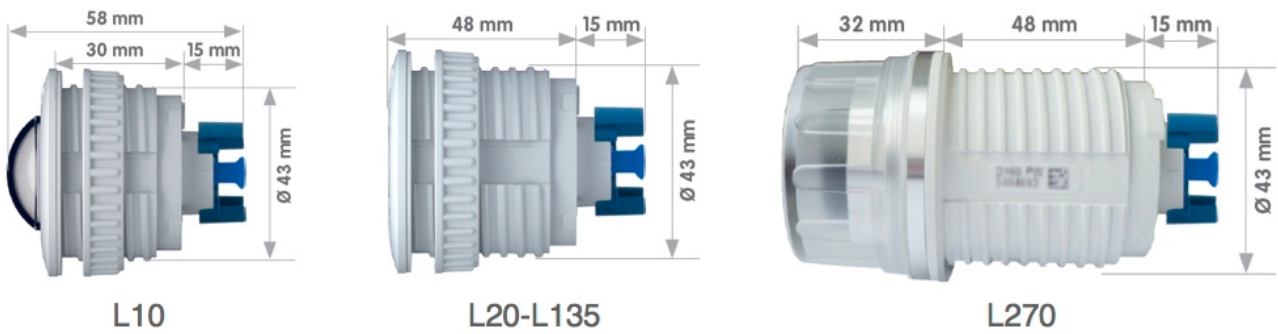


Technical drawings of the 1000 Series 1/2" components. The drawings show three views: a front view, a side view, and a cross-sectional view. The front view shows a component with a diameter of $\varnothing 45.0$ and a height of $40\text{mm} \pm 0.4$. The side view shows a component with a diameter of $\varnothing 45.0$ and a height of $40\text{mm} \pm 0.4$. The cross-sectional view shows a component with a diameter of $\varnothing 45.0$ and a height of $40\text{mm} \pm 0.4$.

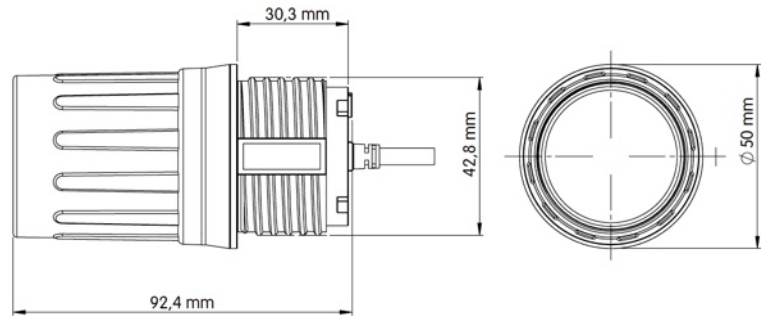
Available from A1 Security Cameras
www.a1securitycameras.com email: sales@a1securitycameras.com



(S15 – Camera housing and connectors, excerpt from the technical documentation)



(6MP Sensor Modules – Dimensions)



(6MP Sensor Module with CS-Mount – Dimensions)



(6MP BlockFlexMount with lens and with CS-Mount)

Technical data - Thermal sensor modules for S15	
Model versions	Thermal Sensor Modules and PTMount-Thermal
lens options for thermal image sensor	L43/TR079 : 45°x32°, L65/TR119: 25°x19°, L135/TR237: 17°x13 (horiz. x vert. image angle)
Sensitivity - thermal image sensor	NETD typically 50 mK (equivalent to 0.05°C/0.09°F), < 79 mK
Image sensor for thermal image sensor	Uncooled microbolometer with 336 x 252 pixels
Temperature measurement range	-40 to 550 °C/-40 to 1022 °F (temperature of objects to be detected and measured)
Spectral range	7.5 to 13.5 µm
Temperature measurement and events	Via Thermal Spotmeter (as a standard) or Thermal Radiometry (only with TR modules)
Maximum image size for thermal image sensor	Scalable up to 3072 x 2048 (6MP), automatically scaled to the image size of the MX sensor module with dual images
Maximum frame rate for thermal image sensor	9 fps (the camera's overall frame rate is reduced to a maximum of 9 fps when an MX sensor module and a thermal image sensor are displayed simultaneously)
Software functions for thermal image sensor (certain features only available with firmware version 4.2.1.43 and higher)	Optional off-color or black and white image, image mirroring, obscure image area, PTZ commands (pan, tilt, zoom), text and logo options, show event/action symbols, level displays in bars or diagrams, temperature control window
Power consumption for S15D with one/two thermal sensor module(s)	Typically 1.5 W per thermal sensor module; however, can only be used together with an S15 camera housing (versions A to C): A. Mixed operation (1 x thermal, 1 x optical): typically 6.5 W (7.5 W possible over the short term) B. Dual thermal operation (2 x thermal): typically 7 W (8 W possible over the short term) C. Single thermal operation (1 x thermal): typically 5.5 W (6.5 W possible over the short term)
Operating conditions	IP66, -30 to +60°C/-22 to 140°F
Material	Module housing: black anodized aluminum; pressure plate: V2A stainless steel; lens and protective glass lens: germanium
Weight / length / installation dimensions Thermal sensor modules	Weight: < 330 g (one thermal sensor module without sensor cable); total length: 78 mm; diameter of front panel: 57 mm; diameter of stainless steel pressure plate: 63 mm; bore diameter: 48 – 53 mm; maximum wall thickness for installation: 14 mm; alternative mounting with six screw threads on the side of the module for M4 screws, 4 mm thread depth
Delivered parts	Thermal sensor module, 3 mm Allen wrench used to install the pressure plate, Quick Install guide - the S15 camera housing (Body) and sensor cables must be ordered separately!

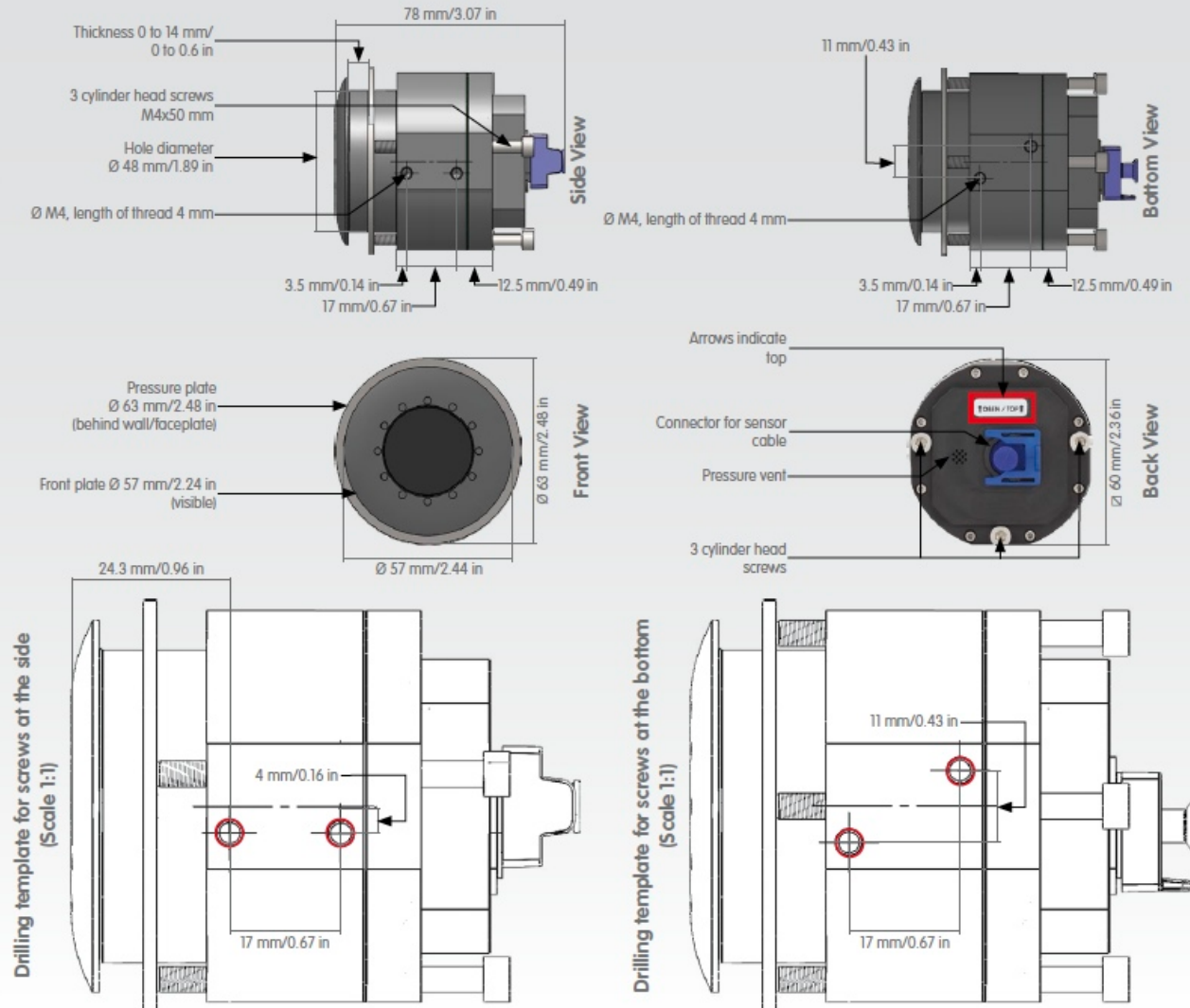
NOTE: An S15 with one or two thermal sensor modules always requires PoE class 3 (factory default).

Attention – Special Export Regulations For Thermal Cameras Apply!

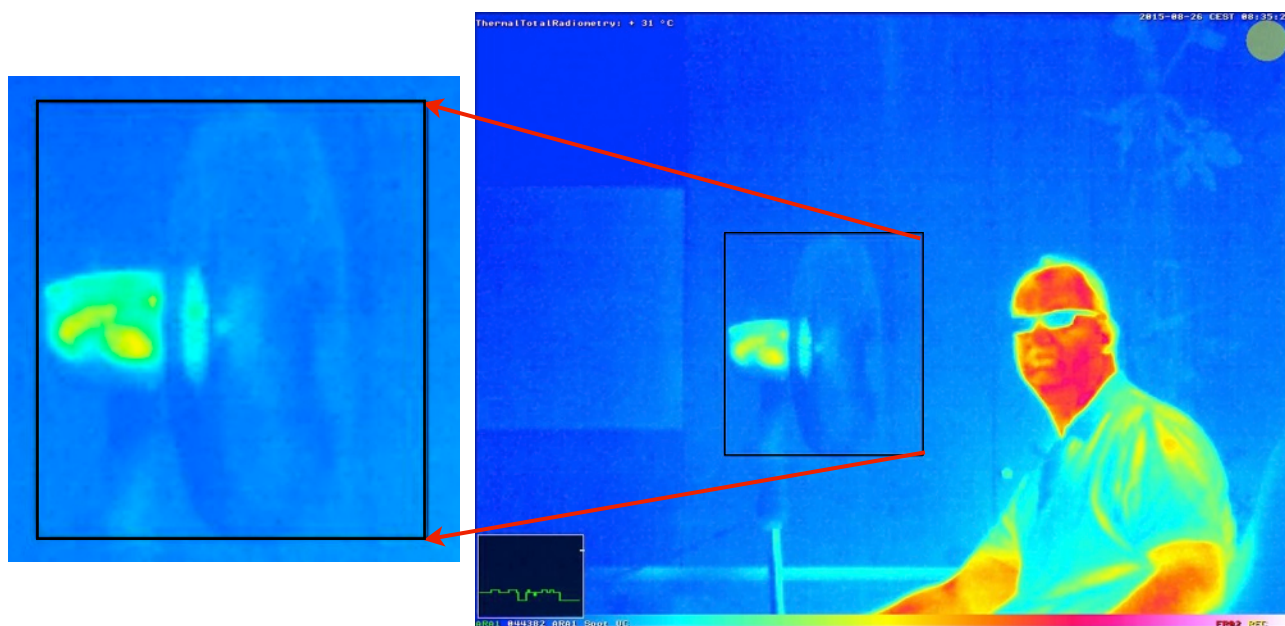
Cameras with thermographic image sensors ("thermal cameras") are subject to the special export regulations of the U.S.A. and the ITAR (International Traffic in Arms Regulation):

- According to the currently applicable export regulations of the U.S.A. and the ITAR, cameras with thermographic image sensors or parts thereof must not be exported to countries embargoed by the U.S.A. or the ITAR. At present, this applies to the following countries: Syria, Iran, Cuba, North Korea and Sudan. The same export ban applies to all persons and institutions listed in "The Denied Persons List" (see www.bis.doc.gov, "Policy Guidance > Lists of Parties of Concern").
- Under no circumstances can the camera itself or its thermographic image sensors be used in the design, the development or in the production of nuclear, biological or chemical weapons or in the weapons themselves.

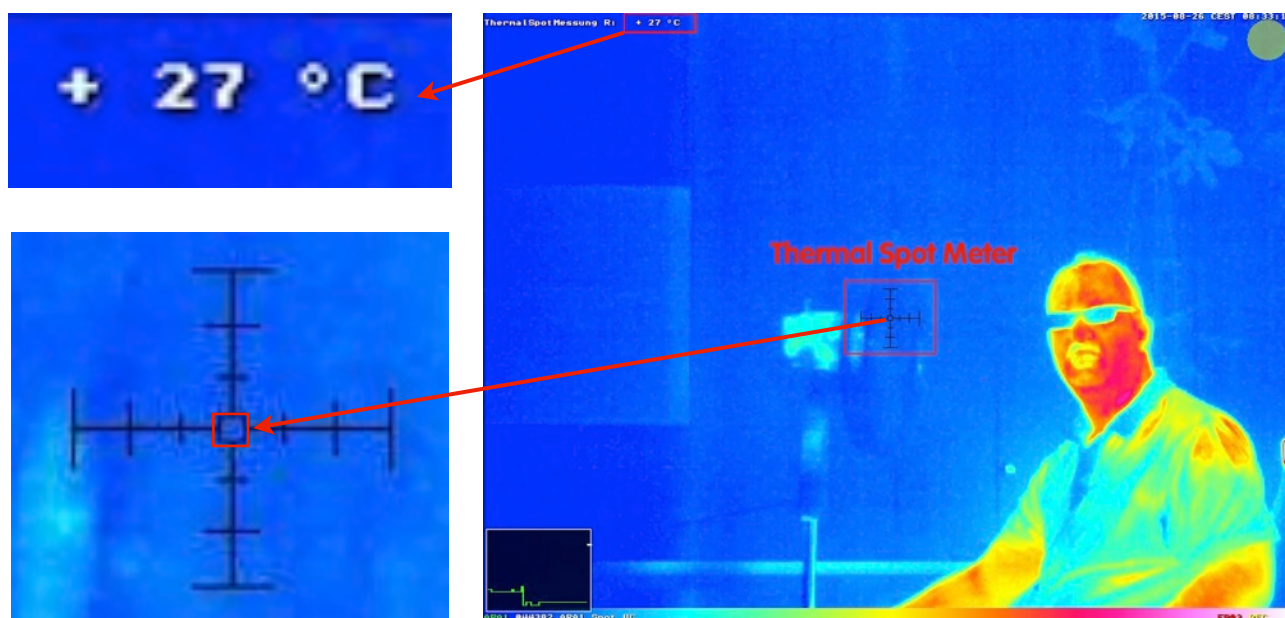
Dimensions/Drilling Templates



(S15 with two PTMount-Thermal)



Thermal image with TR measurement window (black frame in the middle of the image): The green or red graph in the black box (scroll chart) on the bottom left, which can be displayed/hidden, gives an optical view of how close the value is to the trigger value (trigger level or average value in the TR measurement window). The scroll chart is based on the principle of an activity display on the MxActivitySensor.



Temperature measurement using thermal spot metering (four pixels in the center of the black crosshairs): The current value is 27°C, shown as text at the top of the image. The graph in the black box (scroll chart) on the bottom left gives a view of how close the value is to the trigger value.