Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R

ONVIF | S T

The Panomera® multifocal sensor systems of the Runway series are designed for the high-resolution capture of very wide areas that start at a medium to larger distance and are spatially rather short. The extreme horizontal field of view results from the combination of two Panomera® systems, making the Runway solution ideal for the protection of takeoff and touchdown fields.

Panomera® effect

The sophisticated combination of the high-resolution sensors of the two Panomera® S8 Ultraline offers an offers an excellent dynamic range of 130 dB UWDR effective and results in an outstanding Panomera® effect with an effective resolution of 380 megapixels (MPe). In combination with an extreme horizontal field of view of 156°, this allows very wide areas to be captured with high pixel density and consistent depth of field.

Automatic calibration

The innovative lens sensor concept of the Panomera® S8 is based on motorized varifocal lenses that are optimally matched to the extremely high-resolution image sensors. The individual lens sensor units are automatically focused and calibrated over the network using the Panomera® AutoCalibration software.

Video Content Analysis

The optional Video Content Analysis (VCA) detects movements and objects in the uncompressed image and analyzes them in real-time (depending on the analysis resolution) with highly developed analysis functions such as Intrusion Detection or Line Crossing. The detected events can be used to trigger the recording of a Dallmeier recording system. Together with the detected objects and the corresponding metadata, they are stored in a database. This allows the targeted search and evaluation of the recordings by Dallmeier Client Software with the SmartFinder function.

AI support

The latest variants of the multifocal sensor system are equipped with encoder technology that enables Video Content Analysis supported by AI (Artificial Intelligence) functions based on neural networks in the camera. This provides a significantly more powerful object classification, which finally allows an even more targeted evaluation of the recordings.

Permanent capturing

The multifocal sensor system captures and stores all areas of the object space in maximum detail resolution. It does not matter whether the operators in live mode concentrate on a certain area (multiple detail zoom) or whether interesting areas are displayed in detail on the basis of video content analysis (multiple auto tracking). The Panomera® recordings always contain the entire action and allow for the evaluation of each incident.

EdgeStorage

The sensors of the Panomera® S8 are equipped with a RAM memory that is used by the EdgeStorage function to store the video stream in case of a network failure (e.g. Spanning Tree, Bursts). When the network is restored, the SmartBackfill function ensures fast transmission to the Dallmeier recording system. This stores the video stream with high speed and then continues to record the live stream seamlessly.

Further features

- Multifocal sensor system with a total of 16 sensors
- Combined horizontal field of view of 156°
- Video compression H.264, H.265, MJPEG
- Ambient light sensor and removable IR cut filter
- Functions for data protection and data security (GDPR-compliant)
- Weather-proof (IP69) housing with integrated heater
- Housing coating tested for seawater resistance
- Fully compatible with the Mountera® Quick-Lock System

Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R

Panomera® S8 190/78 DN L Ultraline Runway

007853 **Panomera® S8 190/78 DN L**
Multifocal sensor system, 190 MPe, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, field of view horizontal 78°, version for the capture of the left side, box housing, 1000BASE-T Ethernet port for copper cabling

Panomera® S8 190/78 DN R Ultraline Runway

007854 **Panomera® S8 190/78 DN R**
Multifocal sensor system, 190 MPe, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, field of view horizontal 78°, version for the capture of the right side, box housing, 1000BASE-T Ethernet port for copper cabling

Licenses

007075 **DLC - AI/VCA for Panomera® S/W 8**
Licence to use the Video Content Analysis (VCA) function with AI-supported object classification for a Panomera® S/W 8 system

Accessories

007054 **Mountera® Box with PSU**
Mountera® Box with power supply unit, 48 V DC, 5.4 A, 260 W, IP69, white

006978 **Mountera® Box with SRS Edge**
Mountera® Box with Dallmeier Appliance for recording up to 16 video streams, license for the recording of a Dallmeier network camera or a Panomera® system included, licenses for access from 2 clients included, power supply unit 48 V DC, 5.4 A, 260 W included, IP69, white, without SSD memory module

006979 **Mountera® Wall Bracket**
Mountera® bracket for the installation of camera systems on walls or on a Mountera® Box, Quick-Lock System included, robust aluminium construction, internal cable routing, vandal-resistant, powder-coated, white

006980 **Mountera® Ceiling Bracket**
Mountera® bracket for installation of camera systems on ceilings, Quick-Lock System included, robust aluminium construction, internal cable routing, vandal-resistant, powder-coated, white

Cable Set

007428 **Mountera® Cable Set C**
Preassembled cable set for the connection of a camera system to a Mountera® Box, 1× cable seal, 1× cable power supply/grounding, 1× cable network (copper RJ45), each with matching plug, UV-resistant and flexible, length 80 cm

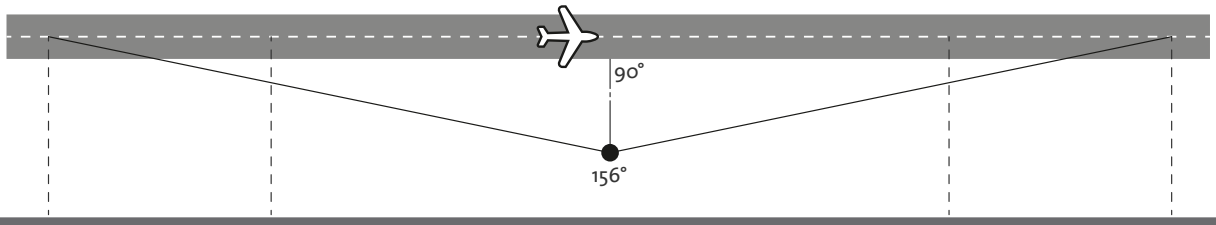
Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R

Sensor System	
Number of sensors	16 (combined)
Number of sensor pixels	132 MP (combined)
Light sensitivity	<0.05 lux
Dynamic range (UWDR)	130 dB (effective)

Resolution	
Effective resolution	380 (MPe)[1]



Pixel density

Distance Panomera® to horizontal center line	Pixel density on horizontal center line left	Pixel density on horizontal center line middle	Pixel density on horizontal center line right	Total covered width
90 m	59 px/m / 173 m	≥95 px/m / 525 m (∅ 126 px/m)	59 px/m / 173 m	871 m
100 m	53 px/m / 192 m	≥86 px/m / 584 m (∅ 113 px/m)	53 px/m / 192 m	968 m
110 m	48 px/m / 211.5 m	≥78 px/m / 642 m (∅ 103 px/m)	48 px/m / 211.5 m	1,065 m
120 m	44 px/m / 230.5 m	≥72 px/m / 701 m (∅ 94 px/m)	44 px/m / 230.5 m	1,162 m
130 m	41 px/m / 250 m	≥66 px/m / 759 m (∅ 87 px/m)	41 px/m / 250 m	1,259 m
140 m	38 px/m / 269 m	≥61 px/m / 817 m (∅ 81 px/m)	38 px/m / 269 m	1,355 m
150 m	35 px/m / 288.5 m	≥57 px/m / 876 m (∅ 76 px/m)	35 px/m / 288.5 m	1,453 m
200 m	27 px/m / 384.5 m	≥43 px/m / 1,168 m (∅ 57 px/m)	27 px/m / 384.5 m	1,937 m
300 m	18 px/m / 576.5 m	≥29 px/m / 1,752 m (∅ 38 px/m)	18 px/m / 576.5 m	2,905 m
400 m	13 px/m / 769 m	≥21 px/m / 2,335 m (∅ 28 px/m)	13 px/m / 769 m	3,873 m
500 m	11 px/m / 961 m	≥17 px/m / 2,919 m (∅ 23 px/m)	11 px/m / 961 m	4,841 m
600 m	9 px/m / 1,153.5 m	≥14 px/m / 3,503 m (∅ 19 px/m)	9 px/m / 1,153.5 m	5,810 m
700 m	8 px/m / 1,345.5 m	≥12 px/m / 4,087 m (∅ 16 px/m)	8 px/m / 1,345.5 m	6,778 m

Field of View and Aspect Ratio	
Horizontal field of view	156.6° (combined)
Vertical field of view	10.9°
Aspect ratio (H:V)	14:1

Format and Encoding	
Video compression	H.264, H.265, MJPEG
Frame rate	Up to 30 fps at full resolution
Live streaming	Multicast or Unicast (for Viewing Client) Unicast (for recording)

Network and Recording	
Required network bandwidth (nominal, for recording)	192 Mbps[2] (H.265) 6 Mbps (with Panomera® Streaming Server)
Recommended network bandwidth	1,000 Mbps

1) Effective resolution MPe: A conventional single sensor camera would have to be equipped with a 380 megapixels image sensor in order to provide the same resolution across the entire object space as these Panomera® systems.
2) This value is based on the encoding of each sensor with 12 Mbps and the use of the recording system as a proxy for the live view.

Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R

Functions	
Day/Night switching	Ambient light sensing and removable IR cut filter (ICR)
Black-and-white mode	Automatic (at low light or in night mode)
Digital noise reduction	3D-DNR
Brightness control	Automatic (ALC)
Gain control	Automatic (AGC)
White balance	Automatic (AWB)
Privacy Zone Masking	Hiding/masking of up to 16 protected areas per sensor (up to 100% of the entire image)
Video Content Analysis[3]	Intrusion Detection (detection of access to a defined area) Line Crossing (detection of a virtual line crossing) Tamper Detection (detection of manipulations on the camera) Object Classification (classification of objects with AI support) Face Detection (detection of faces)[4]

Protocols	
Ethernet protocols	IPv4 (ARP, ICMP, IGMPv2/IGMPv3), UDP, TCP, LLDP, CDP (v1,v2), DSCP (QoS), DNS, DHCP, NTP, HTTP/HTTPS[5], RTSP/RTP/RTCP, SNMP (v1, v2c, v3)
Ethernet protocols in preparation	IPv6 (NDP, ICMPv6, MLDv1/MLDv2, SLAAC, RDNSS), UDPv6, TCPv6, DNSv6, DHCPv6, LDAP
Communication protocols	DaVid, DaVidS, ONVIF Profile S, Profile T, SNMP (v1, v2c, v3)
Security	HTTPS[5] encryption, SSL/TLS[5] 1.2 (AES), network access control according to IEEE 802.1X[5]

Connections	
Ethernet 1	Telegärtner STX V4 socket with STX RJ45 coupling Cat.6 for 1000BASE-T (1,000 Mbps)
Ethernet 2	Telegärtner STX V4 socket with STX RJ45 coupling Cat.6 for 1000BASE-T, PoE+ Out, 30 W, IEEE 802.at (100 Mbps, service port)
Power IN	HARTING connector (5-pole)

Electrical Data	
Voltage supply	Camera: 48 V DC ±5% Heater: 48 V DC ±5%
Power consumption	Camera: Max. 100 W[6] Heater: Max. 60 W

Mechanical Data	
Dimensions (W × H × D)	Approx. 348 × 183 × 441 mm (13.7" × 7.2" × 17.4")
Weight	Approx. 17.5 kg (38.6 lb)
Material	Aluminium
Processing	Chromated
Finish	Powder coating, tested for seawater resistance according to DIN EN 60068-2
Color	Signal white (RAL 9003[7]), housing Signal black (RAL 9004[7]), front frame
Adjustment	Stepless alignment on 3-axes, vertical up to ±15°, horizontal up to ±7°
IP rating	IP69

Environmental Conditions	
Installation sites	Indoor and outdoor
Operating temperature	−40 °C to +60 °C (minimum start-up temperature: −30 °C) Heater On: < +10 °C Heater Off: > +10 °C
Relative humidity	0% – 90% RH, non-condensing

3) Depending on the load of the CPU.
4) The function detects the presence of a face (Face Detection). The analysis of visible features and the link to person data (Face Recognition) are not supported.
5) This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org) and cryptographic software written by Eric Young (eay@cryptsoft.com).
6) Maximum power consumption camera 70 W, in connection with PoE+ Out (Ethernet 2) maximum 100 W.
7) The color of the powder coating may differ slightly from the RAL color indicated. This is due to production and does not constitute a defect.

Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R

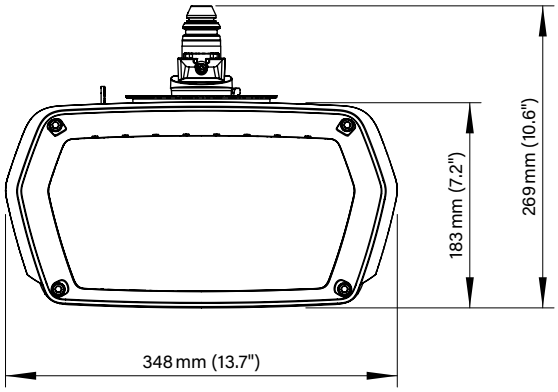
Miscellaneous	
Ambient light sensor	Integrated
Removable IR-cut filter	Integrated
Local memory	50 MB RAM memory per sensor
Configuration and live video	Via web browser (all major platforms), PService3 (with Panomera® AutoCalibration add-on)
Languages	German, English,
Programming interface	Open platform for integration into 3rd party systems using API
ONVIF compliance	Profile S, Profile T
GDPR compliance	Supported

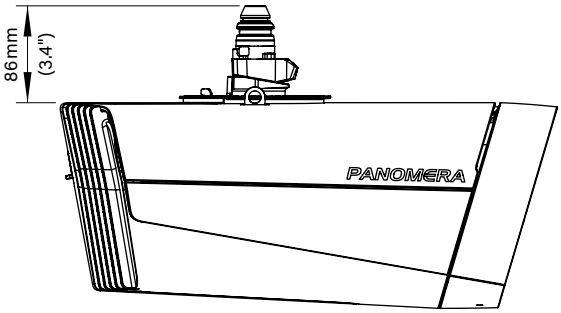
Approvals/Certifications	
Type	CE, FCC, RCM, UL, EN 60950-22 compliant (outdoor parts)

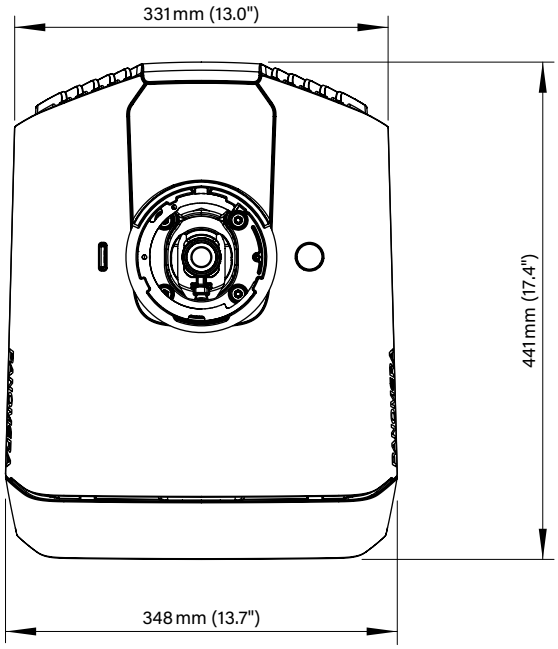
Panomera® S8 Runway Series

Ultraline

Multifocal Sensor System, 30 fps, H.264, H.265, day/night, UWDR, AI/VCA optional, combined horizontal field of view 156°, box housing, models S8 190/78 DN L, S8 190/78 DN R







Dallmeier electronic GmbH & Co.KG | Bahnhofstr. 16, 93047 Regensburg, Germany | +49 941 8700-0 | dallmeier.com

See more.