

Z: NIGHTOWL® ZM-ER

Long range camera for surveillance applications

The ITAR-free surveillance camera is specifically developed for long-range observation. The combination of a large field of view for wide-area observation as well as a small field of view for target spotting offers excellent situational awareness. It fulfils the high requirements of land and coastal border surveillance and is equally suited for the protection of critical infrastructure.

The IP-based Z:NightOwl® ZM-ER can be operated as a stand-alone or networked camera by means of our Management Software suite Z:ASSESS. It also allows integration into existing legacy operating systems. The camera is suited for use in stationary solutions – for example mounted on masts, tripods or building structures – as well as mobile applications.

FEATURES & BENEFITS

- Available as standard definition (SD) and high definition (HD) version
- 360° observation range
- Thermal imager boresighted with a CMOS camera and laser rangefinder
- Compact ruggedized design without external cabling
- Hermetically sealed housing
- Suited for vehicle integration
- Flexible service architecture
- Digital video output
- Remote diagnostic capability

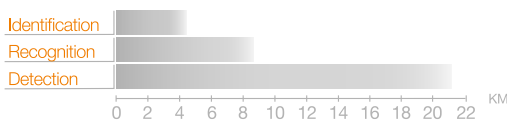


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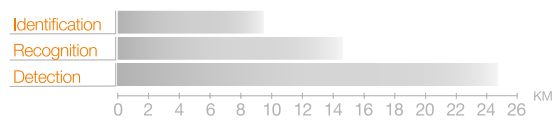
Optical data		
Thermal Imaging Camera	Standard Definition	High Definition
Imaging Sensor	Cadmium Mercury Telluride CMOS	
Resolution	640 x 512 px	1280 x 720 px
Spectral Range	MWIR (3µm to 5µm)	
Detector Pitch	15µm	10µm
Field of View (horizontal)	0.70° to 8.5°	1.05° to 11.4°
Continuous Optical Zoom	12.3 x	10.9x
Continuous Digital Zoom	up to 8 x	
Focal Length	64 mm to 786 mm	
Focus	Manual, Automatic or Absolute Distance	
Sensor Start-Up Time	<8 min (+20° C)	
Daylight Camera		
Imaging Sensor	1/2.8" type CMOS	
Resolution	768 x 576 px	1920 x 1080 px
Field of View	0.92° to 25°	2.3° to 60°
Continuous Optical Zoom	30x	
Continuous Digital Zoom	up to 8 x	
Focal Length (wide to tele)	4.3mm to 129mm	
Focus	Manual or Automatic	
Min. Illumination	≤ 0.01 lux (1/30s)	
Laser rangefinder		
Type	Nd:YAG OPO-shifted	
Wavelength	1570nm ±10nm	
Pulse Repetition Rate	up to 1 pulse per second	
Safety Class	1M in acc. with EN 60825 / 1:2007-03	
Measuring Range	50m to 20,000 m (accuracy 1 m)	
Multiple Echoes	Yes	
Mechanical data		
Pan and Tilt		
Azimuth Range / Velocity	n x 360° / 0.05° to 40° per sec	
Elevation Range / Velocity	±45° / 0.05° to 20° per sec	
System Features		
Video Output	H.264 over IP	
Command and Control	Gigabit-Ethernet / ZEOSys	
Power	18V DC to 32V DC MIL-STD 1275D (normal operating mode) 24V DC recommended	
Weight	appr. 59 kg	
Size (H x W x D)	appr. 635 mm x 432 mm x 435 mm	
Environmental conditions		
Environmental test and EMC	MIL-STD-810G. DIN EN 61000-6-2:2006-03. DIN EN 61000-6-3:2011-09. IP 67	

*Thermal Imaging Camera Range Performance

Human (1.8 x 0.5 m; DT = 5K)



Vehicle (2.3 x 2.3 m; DT = 5K)



DRI according to Johnson Criteria.