

Compact short wavelength spot finder IR camera for metal applications

Features:

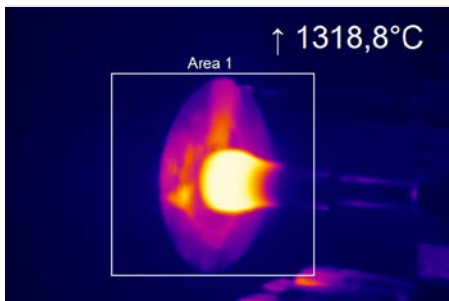
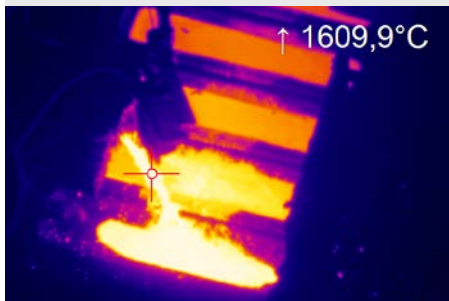
- Small sized rugged camera with motorized focus
- Wide measurement range from 450 °C to 1800 °C without sub-ranges
- Highly dynamic CMOS detector with 396 x 300 pixels resolution
- Fast line scanning mode with 500 Hz
- Autonomous operation with auto hot spot finder and direct analog or alarm output
- Software with extensive analysis features and web server capability included



Technical Specifications

Optical resolution	396 x 300 pixels	
Detector	CMOS (15 µm pitch)	
Spectral range	0.85 – 1.1 µm	
Temperature ranges	14°, 28° & 50° optics: 20Hz: 450 ... 1800°C / 500Hz: 550 ... 1800°C 7° optics: 20Hz: 525 ... 1800°C / 500Hz: 575 ... 1800°C	
Optical resolution / Frame rate	Ethernet: 396 x 300 pixels @ 20 Hz 396 x 8 pixels @ 500 Hz USB: 132 x 100 pixels @ 20Hz	autonomous operations: 132 x 100 pixels @ 20 Hz 396 x 1 pixels @ 500 Hz
Optics (FOV)	50° x 38° (f = 7 mm) 28° x 21° (f = 12 mm) 14° x 10° (f = 25 mm) 7° x 5° (f = 50 mm) (CF optional)	
Focus	Motorized focus	
Optical resolution (D:S)	806:1 (7° optics) / 830:1 (7° CF optics) 401:1 (14° optics) 195:1 (28° optics) 105:1 (50° optics)	
Thermal sensitivity (NETD) ¹⁾	< 2 K (< 900 °C) / < 4 K (< 1400 °C)	
Accuracy (at T _{Amb} = 23 ± 5°C)	For object temperature < 1400 °C: ±1 % of reading for 20 Hz, 500Hz For object temperature < 1600 °C: ±2 % of reading for 20 Hz, 500Hz	
PC interface	Fast Ethernet / USB 2.0 / RS485	
Industrial network interface ²⁾	EtherNet/IP Ethernet TCP Modbus TCP Profinet	
Direct Output / Input	1x analog output (0/4-20 mA) / 1x input (analog or digital); electrically isolated	
Process interface (PIF), industrial	3x analog outputs (0/4-20 mA or 0-10 V) and 3x alarm outputs (relais) / 3x inputs (analog or digital) / fail-safe (LED and relay) stackable up to 3 PIFs; electrically isolated	
Cable length	Ethernet: 1 m (standard), 5 m, 10 m, 20 m (up to 100 m) USB: 1 m, 3 m, 5 m	
Ambient temperature	5 °C ... 50 °C	
Enclosure (size / rating)	Ø 36 mm x 112 – 126.5 mm, depending on lens (M30x1 thread) / IP 67 (NEMA 4)	
Weight (without mounting bracket)	270 g, depending on lens	
Shock / Vibration	IEC 60068-2-27 (25G and 50G) / IEC 60068-2-6 (sinus shaped), IEC 60068-2-64 (broadband noise)	
Power supply	8 - 30 V DC / PoE / USB	
Scope of supply	• Process imager Xi 1M • Ethernet / PoE cable (1 m) / USB cable (1 m) • IN/ OUT cable incl. terminal block (1 m) • Mounting bracket with tripod thread, mounting nut • Software package optris PIX Connect	

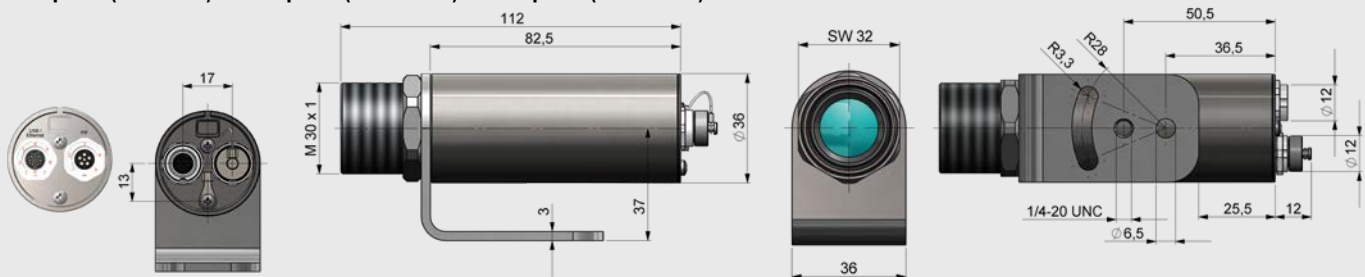
¹⁾ Specified NETD value applies to all frequencies | ²⁾ Optional



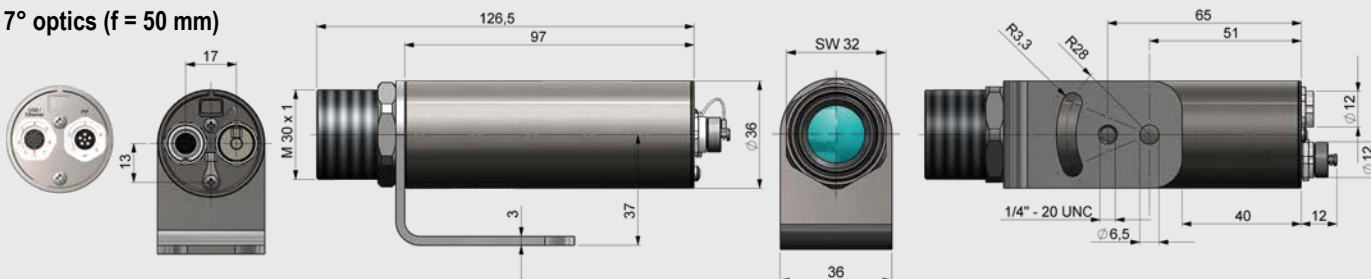
optris Xi 1M

Dimensions in mm

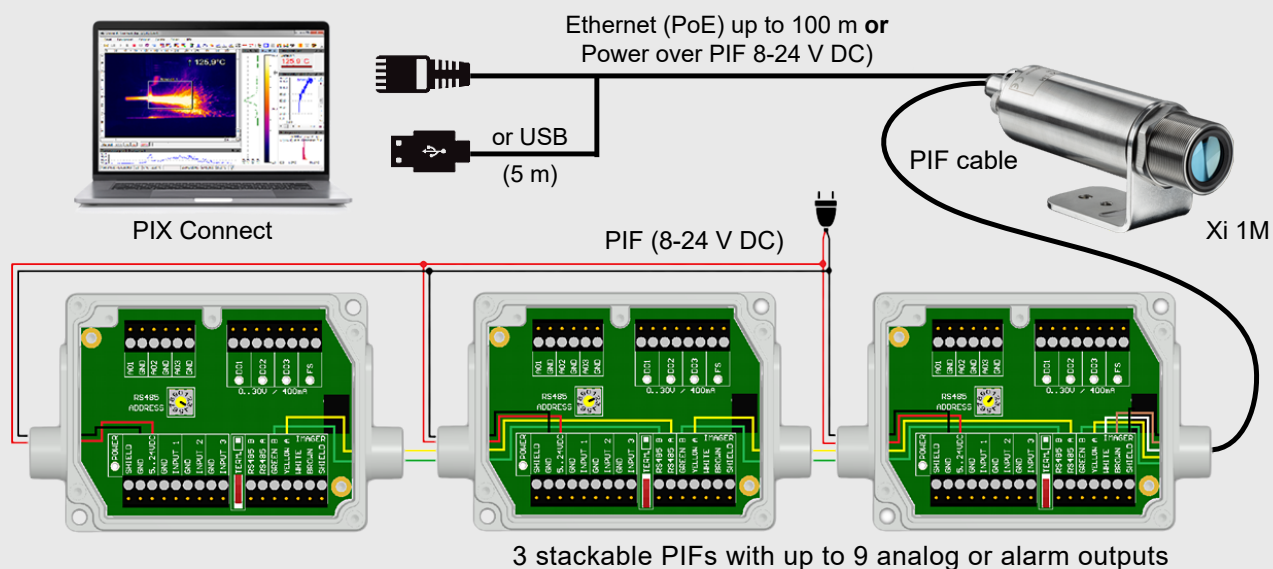
50° optics (f = 7 mm) / 28° optics (f = 12 mm) / 14° optics (f = 25 mm)



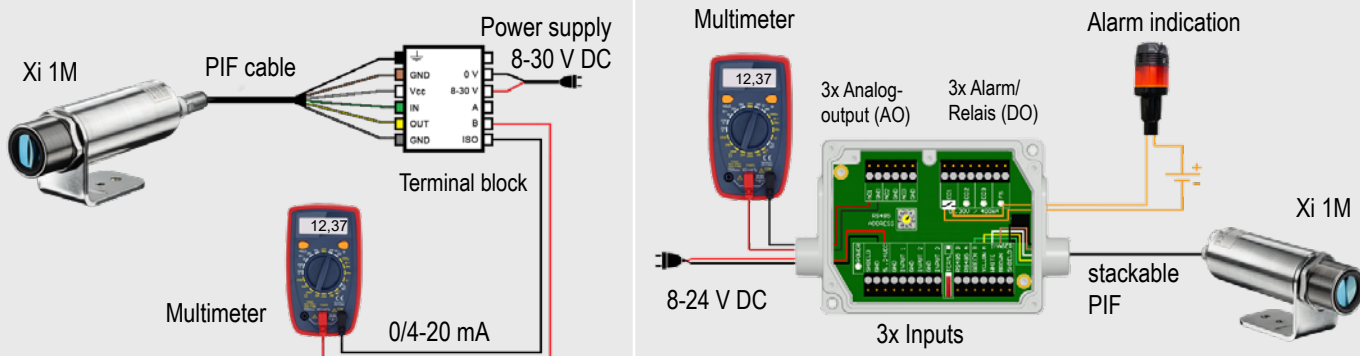
7° optics (f = 50 mm)



Operation with PIX Connect software and 3 stackable PIFs



Autonomous operation (without PC) with up to 9 analog outputs/ alarm outputs and 3 stackable PIFs



Accessories

ACXI1MAPL
(Air purge unit) +
ACXIAPLAB
(Mounting bracket)



ACXIMW
(Water cooled housing)



ACXIS
(Shutter) +
ACXIAPLAB
(Mounting bracket)

