optris® Xi Interface Overview
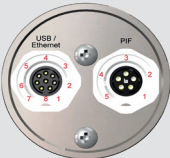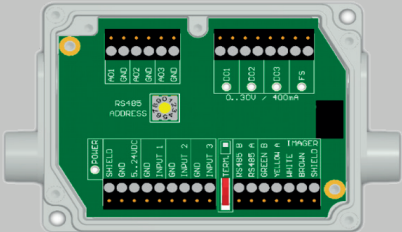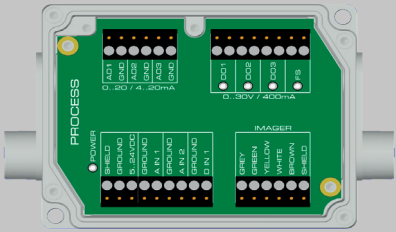## INTERFACE INTERFACE OVERVIEW

Compact and Rugged IR Imager for Industrial Temperature Measurement
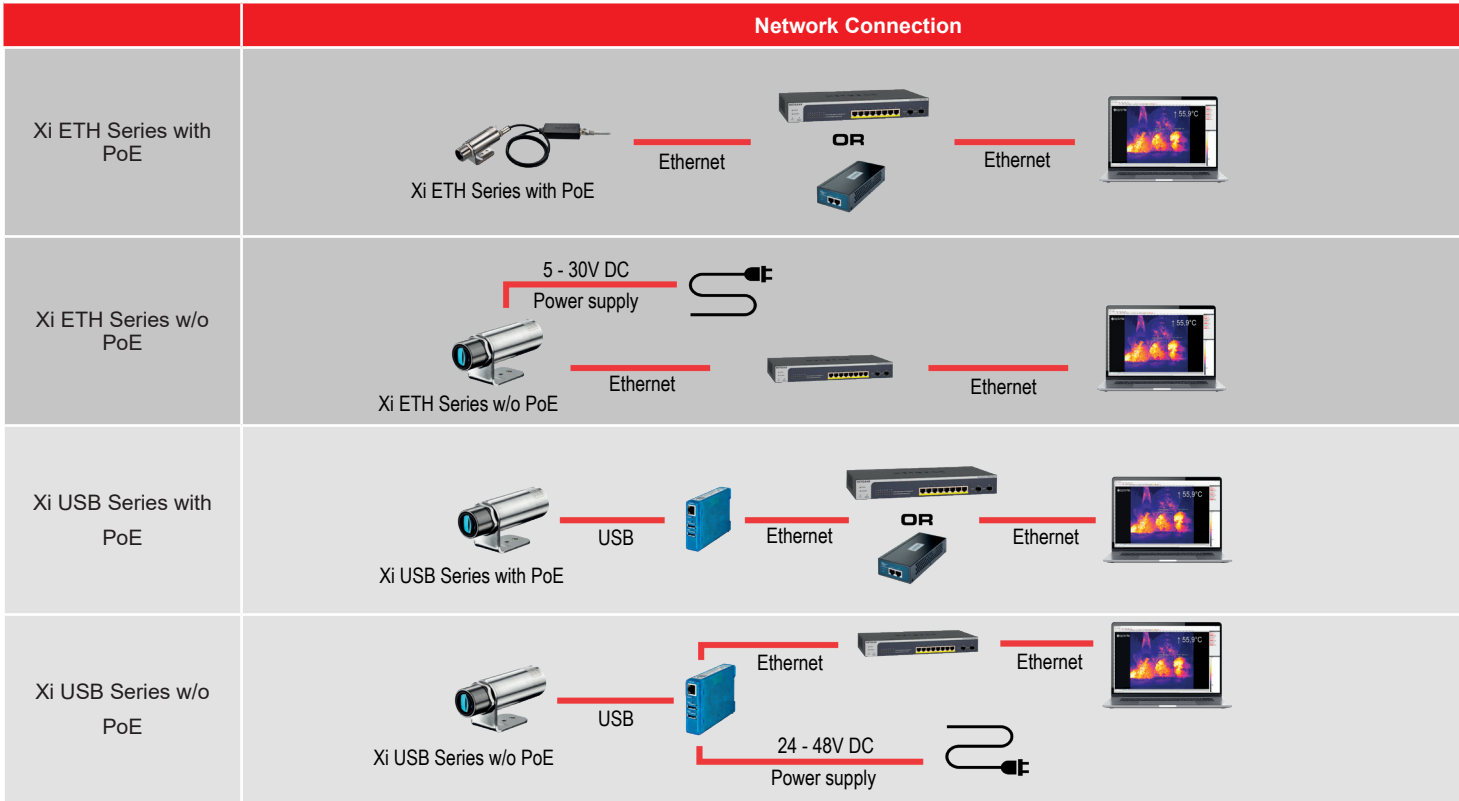
Features:

- Small sized industrial infrared camera with motorized focus
- Wide measurement ranges from -20°C to 1800°C
- Various spectral ranges and wavelegth for different applications
- Licence-free software
- Autonomous operation without computer for Xi ETH series
- Various analog and digital output options like ProfiNet, EtherNet/IP; Modbus TCP, RS485 communication

	Xi ETH Series			Xi USB Series	
	Xi 80	**Xi 410**	**Xi 1M**	**Xi 400**	**Xi 640**
USB/ Ethernet cables	ACXIUSBCBx / ACXIETCBx			ACPIUSB5PCBx	
Process Interface Cable (PIF) (in scope of supply)	Part number: ACXIIOCBx			Part number: ACPIPIF	
Industrial Process Interface (Industrial PIF)	Part number: ACXIPIFX			Part number: ACPIPIFMA	
Autonomous Operation	Yes	Yes	Yes	No	No
Maximal number of analog outputs in autonomous operation	9 (with 3 industrial PIF)	3 (with 1 industrial PIF)	9 (with 3 industrial PIF at 132 x 100 pixel 3 (with 1 industrial PIF) at 396 x 1 pixel	-	-
Response time for autonomous operation	20 ms	640 ms	50 ms at 132 x 100 pixel 2 ms at 396 x 1 pixel	-	-
Maximal number of analog outputs when connected to a computer	9 (with 3 industrial PIF)	9 (with 3 industrial PIF)	9 (with 3 industrial PIF)	3 (with 1 industrial PIF)	3 (with 1 industrial PIF)
Response time when connected to a computer	20 ms	Ethernet: 40 ms USB: 250 ms	Ethernet: 50 ms at 396 x 300 pixel 2 ms at 396 x 8 pixel USB: 50 ms	12 ms or 40 ms (depending on framerate)	30 ms
Maximal number of outputs digital Process Interface *1 (independent of PC connection)	9	3	9 at 132 x 100 pixel 3 at 396 x 1 pixel	-	-
Response time digital Process Interface (independent of PC connection)	20 ms	640 ms	50 ms at 132 x 100 pixel 2 ms at 396 x 1 pixel	-	-

*1 Profinet, EtherNet/IP, Ethernet TCP/IP, Modbus TCP

optris® **Xi Interface Overview**

INTERFACE INTERFACE OVERVIEW

	Network Connection
Xi ETH Series with PoE	Xi ETH Series with PoE — Ethernet — OR — Ethernet
Xi ETH Series w/o PoE	5 - 30V DC Power supply Xi ETH Series w/o PoE — Ethernet — Ethernet
Xi USB Series with PoE	Xi USB Series with PoE — USB — Ethernet — OR — Ethernet
Xi USB Series w/o PoE	Ethernet — Ethernet Xi USB Series w/o PoE — USB — 24 - 48V DC Power supply

imager:	Xi 80 80 x 80 px @ 50 Hz	Xi 410 384 x 240 px @ 25 Hz	Xi 410 384 x 240 px @ 1.5 Hz	Xi 1M 396 x 300 px @ 20 Hz	Xi 1M 396 x 8 px @ 500 Hz	Xi 400 / PI 450i 382 x 288 px @ 80 Hz	Xi 400 / PI 450i 382 x 288 px @ 27 Hz
Data rate/ Max. Number of imager in a Network							
data rate for 1 imager	5,1 Mbit/s	36,8 Mbit/s	2,2 Mbit/s	38 Mbit/s	25,3 Mbit/s	140,8 Mbit/s	47,5 Mbit/s
100 Mbit/s Network	19	2	45	2	3	-	2
1000 Mbit/s Network	195	27	452	26	39	7	21

Data transfer rate for each imager and the theoretical maximum number of cameras for different networks.

Network bandwidth for multiple different imagers