



# Industrial process interface (PIF)

innovative infrared technology



# optris® Industrial process interface

## TECHNICAL DATA

### Features:

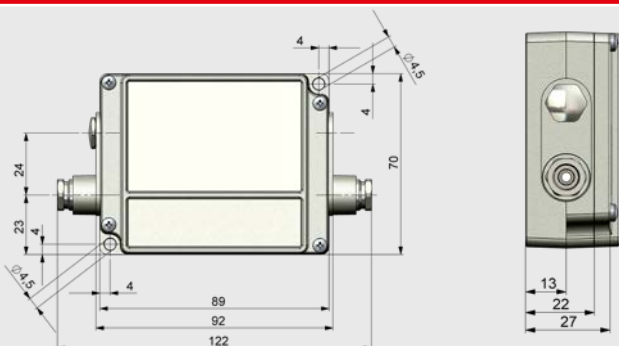
- Industrial process interface with 3 analog / alarm outputs, 2 analog inputs, 1 digital input, 3 alarm relays
- 500 VAC<sub>RMS</sub> isolation voltage between camera and process
- Separate fail-safe relay output
- PI/Xi hardware including all cable connections and PIX Connect software are permanently observed during operation



### General specifications

Environmental rating	IP65 (NEMA-4)
Ambient temperature	-30 °C ... 85 °C
Storage temperature	-30 °C ... 85 °C
Relative humidity	10–95 %, non condensing
Vibration	IEC 60068-2-6 (sinusoidal form) IEC 60068-2-64 (broadband noise)
Shock	IEC 60068-2-27 (25 G and 50 G)
Weight	610 g (with 5 m cable)
Cable length	5 m HT cable (standard), optional 10 m and 20 m

### Technical images



### Electrical parameters

Power supply	5–24 V DC
LED display	2 green LEDs for power and fail-safe/ 3 red LEDs for alarm relay status
Isolation	500 VAC <sub>RMS</sub> between PI/Xi camera and process
Outputs	3 analog / alarm outputs 3 alarm relays <sup>1)</sup>
Inputs	2 analog inputs 1 digital input
Ranges	0/4–20 mA (for AO 1–3) 0–30 V / 400 mA (for alarm relays DO 1–3) 0–10 V (for AI 1–2) 24 V (for DI)

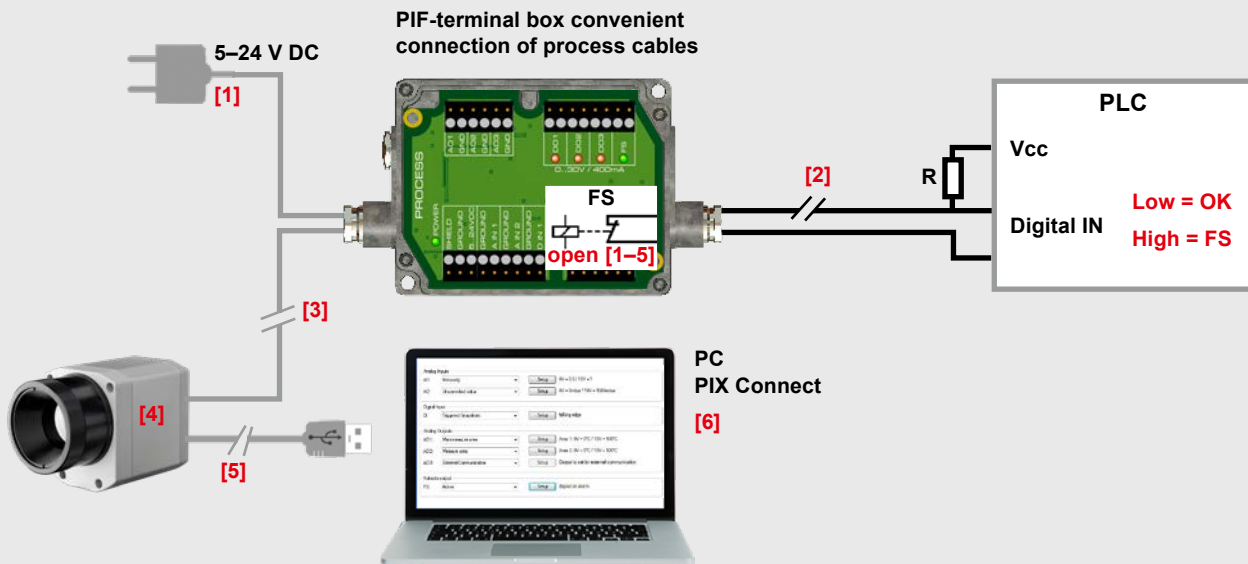
<sup>1)</sup> Active if AO1, 2 or 3 are programmed as alarm output

### Programmable features

Analog inputs	<ul style="list-style-type: none"> <li>• Emissivity setting</li> <li>• Ambient temperature compensation</li> <li>• Reference temperature</li> <li>• Uncommitted value</li> <li>• Flag control</li> <li>• Triggered snapshots, triggered recording, triggered line scan camera, triggered event grabber</li> <li>• Reset peak-/valley-hold</li> </ul>
Digital input	<ul style="list-style-type: none"> <li>• Flag control</li> <li>• Triggered snapshots, triggered recording, triggered line scan camera, triggered event grabber</li> <li>• Reset peak-/valley-hold</li> </ul>
Analog outputs	<ul style="list-style-type: none"> <li>• Main measure area</li> <li>• Measure area</li> <li>• Internal temperature</li> <li>• Flag status</li> <li>• Alarm</li> <li>• Frame sync.</li> <li>• Fail-safe</li> <li>• External communication</li> <li>• Center pixel (direct output)*</li> </ul>

<sup>\*)</sup> Available only for the models PI 1M / PI 05M

Example for a fail-safe monitoring of the PI with a connected PLC



Fail-safe monitoring states

- [1] Breakdown of PIF power supply
- [2] Cable break of fail-safe cable
- [3] Interruption of cable PI – PIF
- [4] Malfunction of PI camera
- [5] Breakdown of PI power supply/ Interruption of USB cable
- [6] Malfunction of PIX Connect software

Fail-Safe status:

Normal:	Relay closed	LED on
Alarm:	Relay open	LED off

Snapshot of programmable features

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