![optris infrared thermometers]

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$_{RMS}$ isolation voltage between camera and process

- Separate fail-safe relay output

- PI hardware including all cable connections and PI Connect software are permanently observed during operation

Electrical specifications

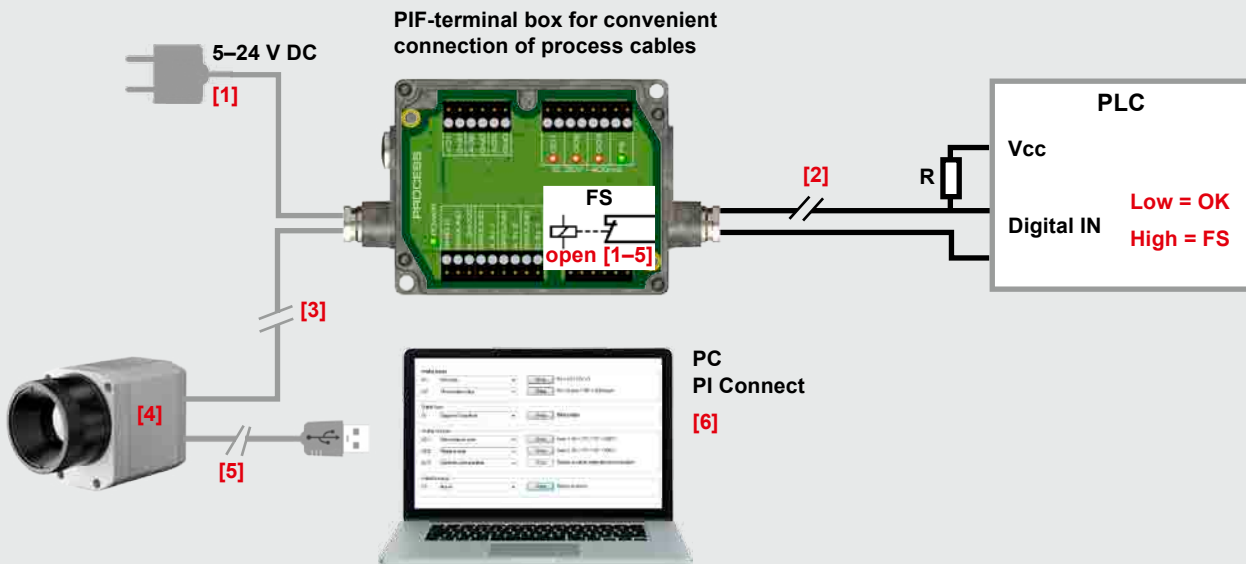|	
Power supply	5 – 24 V DC
LED indication	2 x green LEDs for power and fail-safe/ 3 x red LEDs for alarm relay status
Isolation	500 VAC$_{RMS}$ between PI camera and process
Outputs	3 analog/ alarm outputs 3 alarm relays[1]
Inputs	2 analog inputs 1 digital input
Ranges	0 – 10 V (for AO 1–3)[2] 0 – 30 V / 400 mA (for alarm relays DO 1–3) 0 – 10 V (for AI 1–2) 24 V (for DI)

[1] *active if AO1, 2 or 3 is/are programmed as alarm output*
[2] *depending on supply voltage*

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 (sinus shaped) IEC 60068-2-64 (broadband noise)
Shock	IEC 60068-2-27 (25 g and 50 g)
Weight	610 g (with 5 m cable)
Cable lengths	5 m HT cable (standard), optional 10 m and 20 m

Programmable features

Analog inputs	• Emissivity setting • Ambient temperature compensation • Reference temperature • Uncommitted value • Flag control • Triggered snapshots, recordings, line scannings
Digital input	• Flag control • Triggered snapshots, recordings, line scannings
Analog outputs	• Main measure area • Measure area • Internal temperature • Flag status • Alarm • Frame sync. • Fail-safe • External communication

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

5–24 V DC [1]

PIF-terminal box for convenient connection of process cables

FS
open [1–5]

[2]

R

PLC

Vcc

Digital IN

Low = OK
High = FS

[3]

[4]

[5]

PC
PI Connect
[6]

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**

[5] **Breakdown of PI power supply/ Interruption of USB cable**

[6] **Malfunction of PI Connect software**

Fail-safe status:

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

Snapshot of programmable features

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CE