

# TGBF1H

## TECHNICAL DATA



### Features:

- Smallest camera in it's class (Ø40x100 – 125 mm)
- Interchangeable lenses and industrial accessories
- Superb thermal sensitivity of 40 mK
- Licence-free analysis software and full SDK included

### TECHNICAL SPECIFICATIONS

Optical resolution	382 x 288 pixels	
Detector	FPA, uncooled (17 µm x 17 µm)	
Spectral range	8 - 14 µm	
Temperature ranges	-20 ... 100 °C, 0 ... 250 °C, (20) 150 ... 900 °C <sup>1)</sup> , optional temperature range: 200 ... 1500 °C	
Frame rate	80 Hz/ switchable to 27 Hz	
Optics (FOV)	29° x 22° / f = 12,7 mm or 18° x 14° / f = 20 mm or 53° x 38° / f = 7,7 mm or 80° x 54° / f = 5,7 mm	
Thermal sensitivity (NETD)	40 mK with 29° x 22° FOV / F = 0.9 40 mK with 53° x 38° FOV / F = 0.9 40 mK with 80° x 54° FOV / F = 0.9 0.06 K with 18° x 14° FOV / F = 1.1	
System accuracy	±2 °C or ±2 %, whichever is greater	
PC interface	USB 2.0 / optional USB to GigE (PoE) interface	
Process interface (IPI), Standard	0 – 10 V input, digital input (max. 24 V), 0 – 10 output	
Process interface (IPI), industrial	2x 0 – 10 V input, digital Input (max. 24 V), 3x 0/4 – 20 mA outputs, 3x relay (0 – 30 V/ 400 mA), fail-safe relay	
Cable length (USB)	1 m (standard), 5 m, 10 m, 20 m 5 m and 10 m also as high temperature USB cable (180 or 250 °C)	
Ambient temperature	0 ... 70 °C [32...158 °F]	
Storage temperature	- 40 ... 85 °C [-40...185 °F]	
Relative humidity	20 – 80 %, non-condensing	
Enclosure (size / rating)	Ø40 x 100 - 125 mm (depending on lens + focus position) / IP 67 (NEMA 4)	
Weight	320 g, incl. lens	
Shock / Vibration <sup>1)</sup>	IEC 60068-2-27 (25G and 50G) / IEC 60068-2-6 (sinus shaped), IEC 60068-2-64 (broadband noise)	
Tripod mount	¼ – 20 UNC	
Power supply	via USB	
Scope of supply (standard)	<ul style="list-style-type: none"> <li>• USB camera, incl. lens</li> <li>• USB cable (1 m)</li> <li>• Table tripod</li> <li>• IPI cable, incl. terminal block (1 m)</li> </ul>	<ul style="list-style-type: none"> <li>• Software package GP Connect</li> <li>• Test certificate</li> <li>• Rugged outdoor transport case (IP67)</li> </ul>

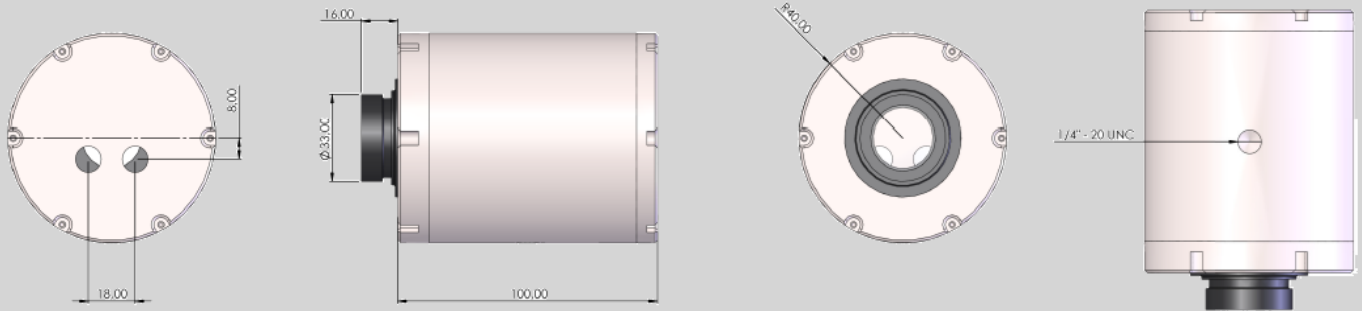


For further information as well as the product configurator, please visit <https://www.gruppopedercini.com/divisions/healthcare/>

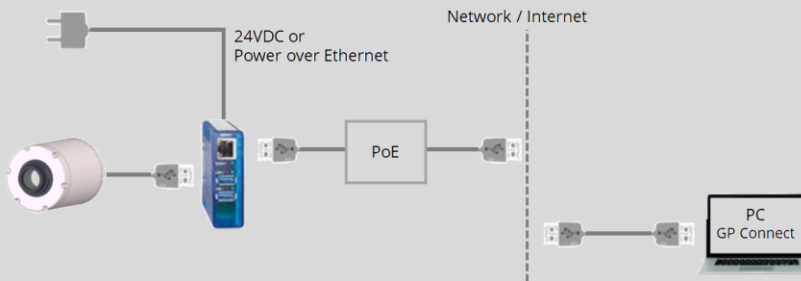
<sup>1)</sup> Accuracy for the (20°C) 150°C ... 900°C range effective starting at 150°C

<sup>2)</sup> For further information see operator's manual

## DIMENSIONAL



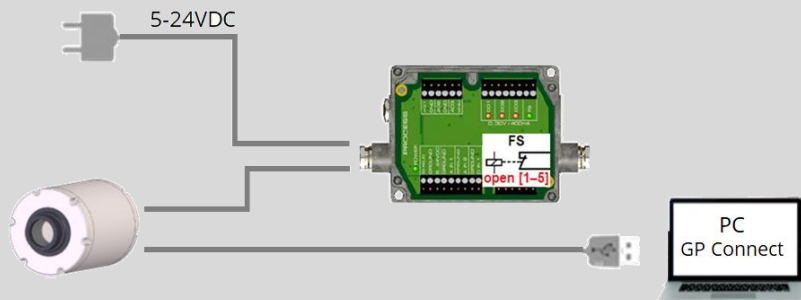
## PROCESS INTEGRATION



### USB-Server Gigabit 2.0

- Network connection via Gigabit Ethernet
- Full TCP/IP support incl. routing and DNS
- Two independent USB ports
- Power via PoE or external voltage supply at 24 – 48 V DC
- Galvanic isolation 500 V<sub>RMS</sub>
- Remotely configurable via web based management

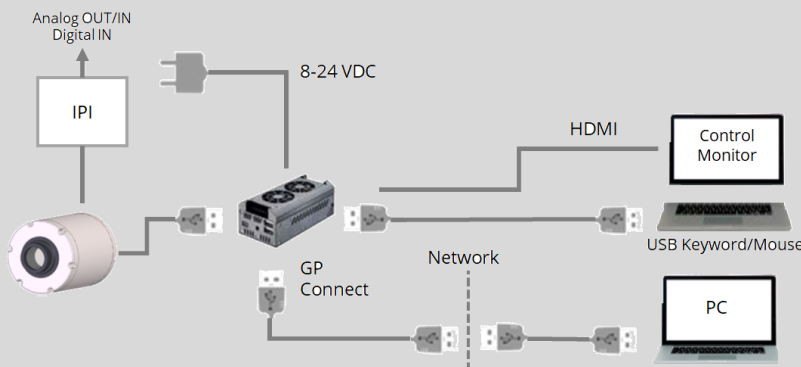
For further information please visit  
<https://www.shieldproinc.com/>



### IPI - Industrial Process Interface

- Use of camera for process monitoring in industrial environments
- Continuous fail safe monitoring of imager, software and cable connections
- 3 analog/ alarm outputs, 2 analog inputs, 1 digital input, 3 alarm relays, 1 fail-safe relay

For further information please visit  
<https://www.shieldproinc.com/>



### TG NetBox

- Miniature PC as add-on to the PI series for stand-alone system
- Integrated hardware and software watchdog
- Connections: 2x USB 2.0, 1x USB 3.0, 1x Mini-USB 2.0, Micro-HDMI, Ethernet (Gigabit Ethernet), micro SDHC
- SDXC card

For further information please visit  
<https://www.shieldproinc.com/>