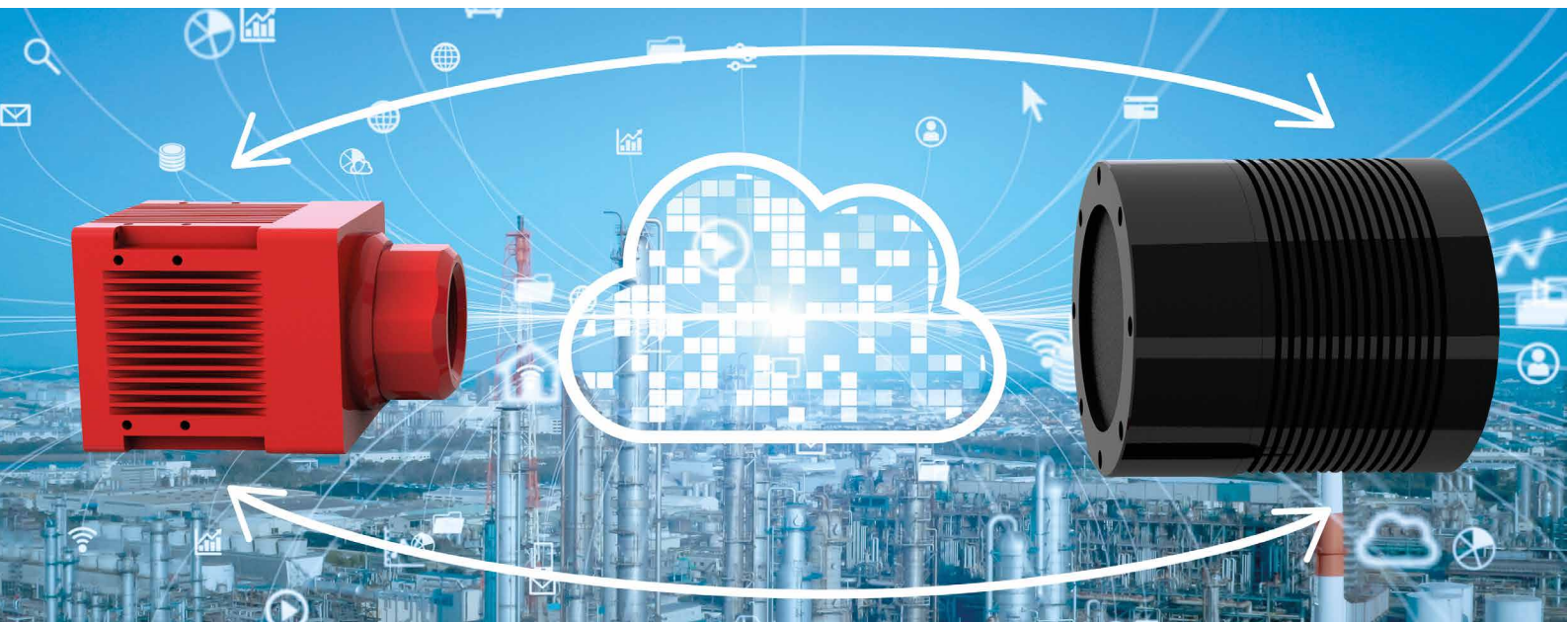


## IRS Calilux

*Smart Blackbody for Infrared Cameras*



With the IRS Calilux, AT - Automation Technology has extended its IRS family of intelligent thermal imaging products with a Smart Blackbody. This new development is a perfect addition to infrared cameras to increase their temperature measurement accuracy to the limits of what is technically possible to  $\pm 0.3$  degrees. This makes the IRS Calilux a real precision wonder when it comes to imaging temperature measurement technology. With its unique features, the use of the AT Smart Blackbody with infrared cameras offers considerable advantages for numerous applications in a wide range of industries and allows the reliable setup of suitable and fail-safe temperature monitoring systems. In addition, the calibration of infrared cameras can be validated with the IRS Calilux directly on site without the need to uninstall them. Each unit comes with a traceable high-precision radiometric calibration. The new AT Smart Blackbody is a multifunctional all-rounder that sets new standards in terms of connectivity, integration and functionality.

### Main features and benefits

- ✓ Improvement of the measuring accuracy for infrared cameras to  $\pm 0.3$  degrees
- ✓ Comes with a traceable high-precision radiometric calibration
- ✓ Continuous in-field monitoring of IR systems
- ✓ Decisive component for Fail-Safe IR Systems
- ✓ For in-field verification of the calibration of infrared cameras
- ✓ Easy integration into systems through Plug&Play principle
- ✓ IoT communication via Ethernet/WiFi with numerous industrial protocols
- ✓ Ambient temperature compensated reference value
- ✓ Integrated monitoring of ambient temperature and humidity
- ✓ Optionally available with integrated cooling function and as outdoor version



Specifications	
Accuracy	±0.1°C, radiometric and traceable calibrated optional with compensation of ambient temperature for higher accuracy
Stability	±0.025°C
Features for Fail-Safe Infrared Monitoring Systems	Reliable temperature reference for 24/7 operation by providing the real radiometric temperature, even in environments with changing temperature conditions
Temperature range blackbody area	+5°C to +100°C (minimum 5°C above ambient temperature)
Temperature homogeneity of blackbody area	±0.05°C (across 90% of blackbody area)
Blackbody area	Ø 70mm
Emissivity	0.97 (3µm - 14µm)
Support for stand-alone usage	Configuration via OLED display with button menu
Setpoint resolution	0.01°C (via Ethernet protocols), 0.1°C via panel buttons
Display resolution	0.01°C
LED status indicators	Stable, heating, cooling
Accessories	Sun roof
Interfaces	
Ethernet type	10/100 MBit
Smart protocols for seamless camera communication and remote control	DHCP, DNS, mDNS, Modbus-TCP, HTTP(S), OpenAPI, REST-API, SNMP, MQTT
Ethernet connector	M12 8-pin, A-coded
Connector for external sensors	M8 4-pin (e.g. for ambient temperature and humidity)
WiFi	SMA connector for WiFi antenna
Power supply	
Power supply	24V DC / 20W (AC/DC adaptor for 110/230V included)
Connector	M12 4-pin
General	
Operating temperature range	-20 to +40°C (non-condensing)
Storage temperature	-40°C to +80°C
Humidity	5–95% relative humidity
Protection class	IP53
RoHS	Compliant
Weight	Approx. 570g
Accessories / options	Mounting adapter, external sensor for ambient temperature and humidity, sun roof, WiFi 802.11 a/b/g/n/ac dual band 2.4GHz/5GHz, extended radiometric calibration
Dimensions	