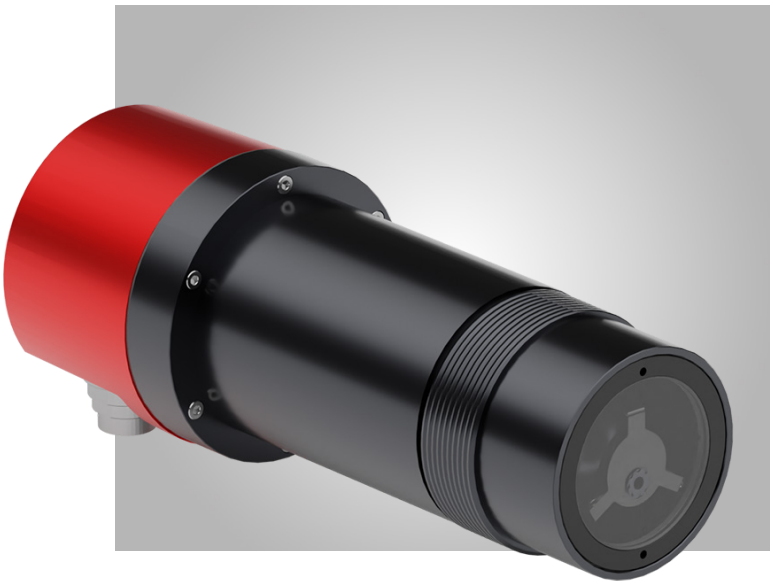

SPOT+ AL

Application pyrometer for aluminium processing

The SPOT+ AL is a non-contact infrared pyrometer designed for precise temperature measurement across various aluminium production and processing applications. It features dedicated modes for extrusion (E), quenching (Q), strip (S), forming/forging (F), forming/forging of higher magnesium alloys (F Mg) and liquid (L) applications. Utilising advanced and proprietary algorithms, it delivers highly accurate readings even for low and variable emissivity aluminium, optimising process speed and reducing scrap.

The dedicated algorithms were developed from extensive trials in real plant environments. Fully focusable high-quality optics and a high speed 15 ms response combine to provide measurements on extruders and rolling mills.

Two versions of the SPOT+AL are available, the standard SPOT+AL measures temperatures from 200 °C to 900 °C, while the SPOT+ AL LT measures lower temperatures for specific applications, integrating seamlessly with control systems, providing real time data via its rear display or web server. Features include a built-in video camera, remote configuration capabilities, and multiple outputs (Ethernet, Modbus TCP/IP, video, analogue, and alarms) for versatile use in aluminium processing.

SPOTPro software supports remote monitoring and algorithm tuning for both small and large installations. It can configure, display, and log data for up to 40 pyrometers and actuators, providing a complete network overview and enabling independent data logging with automatic triggers.

SPOT + AL is an advanced non-contact infrared pyrometer providing a single sensor solution for aluminium production and procesing industries.

FEATURES & BENEFITS

- **Specialised aluminium algorithms** to provide accurate digital temperature readings of low and variable emissivity aluminium, allowing optimisation of process speeed and quality.
- **Durable sapphire protection window** prevents scratches , solvents and can be easily cleaned with a soft cloth.
- **Single sensor solution** is ideal for use with customer PLC's or DCS systems with no requirement for a seperate processor, making it easy to implement in small or large organisations, and the same instrument can be used for different processes.
- **Modbus TCP/IP** is a widely used and popular industrial Ethernet protocol.
- **SPOTViewer** provides remote display and data logging of one SPOT pyrometer. **SPOTPro** provides for multiple thermometers.
- **Industry-standard 4-20 mA linear temperature ouput** provides analogue and digital I/O options.

See degrees differently.

SPECIFICATIONS

	SPOT+ AL	SPOT+ AL LT (Low Temp)
Measurement Range - Modes:	200 -900 °C / 392-1652°F - E, Q, S, F, F Mg, L	130 -700 °C / 266 -1292 °F - F, F Mg 150-700 °C / 302-1292 °F - E, Q, S
Field of View:	60 :1 to 90%	30 :1
Detector Type:	Application-specific selected range of narrow wavelength bands designed to optimise temperature accuracy measurement of aluminium	
Display:	Local display with image streaming	
Settings:	Configure locally using the thermometer interface or remotely (using the Webserver, SPOTViewer, or SPOTPro). Emissivity, Mode, current output range, alarm logic output and thresholds, network settings, focus and LED, language and user name	
Sighting:	Integrated video with local display and remote image capture. Patented* pulsed Green LED focus pattern confirmation	
Focus Range:	300 mm / 11.8 to infinity, locally or remotely adjusted	Nominal target spot diameter 10mm at 300mm focus; 17mm at 500mm focus; 33mm at 1m focus. Twice nominal target area is recommended.
Repeatability:	±3 °C at 200 °C, ±1 °C at 300 °C and above (extrusion and quench), ± 5 °C (lubricated strip, forming/forging and liquid metal)	±3 °C at 150 °C, ±1 °C at 300 °C and above (extrusion and quench), ± 5 °C (lubricated strip, forming/forging)
Mounting:	Full range of mountings and accessories available	
Measurement Accuracy:	± 5 °C at 200 °C, ± 2 °C or 0.25 %K at 300 °C and above (extrusion and quench) ± 5 °C or ±0.5 %K (lubricated strip, forming/forging and liquid metal)	± 5 °C at 150 °C, ± 2 °C or 0.25 %K at 300 °C and above (extrusion and quench) ± 5 °C or ±0.5 %K (lubricated strip, forming/forging)
Resolution:	0.1 °C	
Noise:	5 °C at 200 °C, <0.5 °C at 300 °C and above	5 °C at 150 °C, <0.5 °C at 300 °C and above
Sealing:	IP65	
Response Time:	Adjustable 15 ms to 10 s	
Processing Functions:	Peak/Valley Picking, Averager, Modemaster, CMD In sampling or LED control, CMD Out alarms, emissivity output or actuator control	
Power Req.:	Power over Ethernet or 24 to 30 V DC at the instrument	
Software:	Live configuration and temperature display on any web browser. Freely downloadable SPOTViewer software with datalogging, live and historical data trending plus remote image capture; SPOTPro software available for use with multiple SPOT pyrometers	
Inputs:	4 - 20 mA Input, 24 V DC CMD In, Ethernet, (TCP-IP, Modbus TCP, DHCP, http, udp, ICMP)	
Outputs:	2x4 - 20 mA, CMD Out relay, Ethernet (TCP-IP, Modbus TCP, DHCP, http, udp, ICMP)	
Languages:	Integrated multiple language selections: English, German, French, Italian, Spanish, Portuguese (Brazilian), Japanese, Chinese (simplified Mandarin), Korean, Russian, Polish	
Ambient Temp. Range:	5 - 60 °C / 41 - 140 °F specified, 0-70 °C / 32 - 158 °F operating before cooling required	0 - 45 °C / 32 - 113 °F operating before cooling required
Warranty:	See our website at www.ametek-land.com for warranty details	

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We are fully committed to Quality Assurance. See all our accreditations at **AMETEK-LAND.COM/QUALITY**

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