THE VL miniature infrared temperature sensor from Calex Electronics is designed to offer maximum flexibility in the smallest possible package.

The VL can measure temperatures from -40°C to 700°C with a response time of just 180ms. It has a narrow 10:1 field of view, and adjustable emissivity, so it can be configured to measure most materials. Each unit offers a choice of either 0/4 to 20mA, 0 to 5V or type J or K thermocouple outputs and can therefore be used with virtually all process control instrumentation.

Under the lid of the electronics enclosure are buttons which are used to adjust the configuration parameters of the sensor and set the temperature range, response time and output. From here the analogue outputs can also be configured and maximum/minimum readings switched on or off.

To complement the analogue outputs the VL also provides a digital relay output, the alarm level and hysteresis of which can be adjusted with the electronics module. The VL also has an RS-485 interface for connection to a PC, and can be interrogated using the UPP® (Universal Pyrometer Protocol).

The compact sensing head of the VL is made of stainless steel and is sealed to IP65. It can operate in ambient temperatures up to 85°C without cooling, or 200°C with air-cooling and purging accessories. If cooling is impractical, a special model designated VL700-HA can withstand ambient temperatures up to 180°C without cooling.