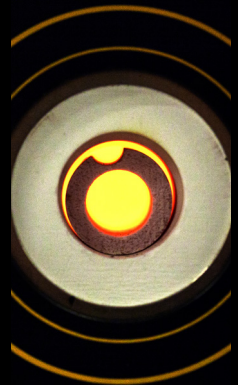




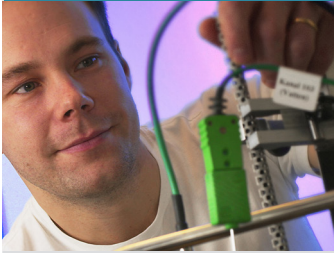
OUR PRODUCTS & SERVICES

Pentronic is the leading manufacturer in Scandinavia of industrial temperature sensors. Our goal is to always fulfil your expectations. With our knowledge, high-quality products, delivery reliability and in-house accredited laboratory we offer a complete temperature measurement service that you can trust.

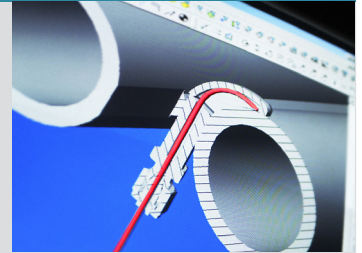


WHAT PENTRONIC OFFERS

Expert design and development

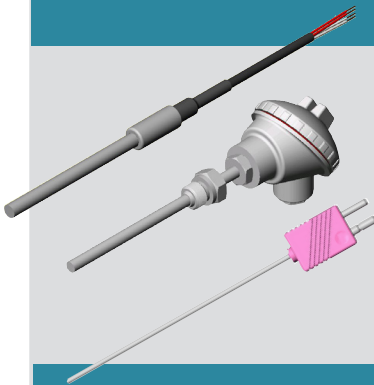


Pentronic's speciality is to design and build temperature sensors that optimise often contradictory customer requirements and to adapt the design to small or large production series. This ensures a cost-efficient solution. The accredited temperature laboratory is invaluable when sensor models must be verified for measurement performance.

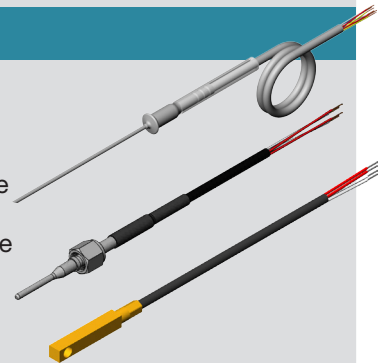


PENTRONIC'S PRODUCTS

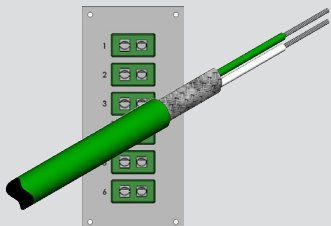
Temperature sensors



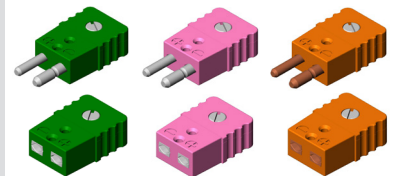
Platinum resistance thermometers (Pt100s/Pt1000s) and thermocouples are the sensor types used in industrial processes around the world. Together they cover the measurement ranges from - 200 up to over 2000 °C. We have a large standard assortment of sensor models available for immediate delivery and suitable for many applications. We are always prepared to help you to design sensors that suit your needs whether you work as a machine builder, in a process industry or in an R&D laboratory.



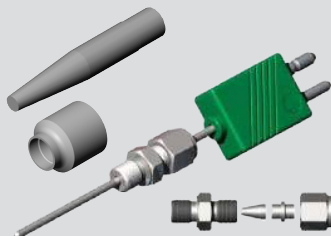
Cables – connectors – panels



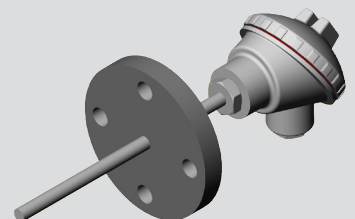
We offer a large selection of cables, connectors, panels and other accessories that facilitate the correct connection of sensors. Correct connection and mounting are important parts of a measurement chain's function.



Mechanical accessories – process connections



Our machining department produces many important accessories for temperature sensors. These include thermowells and protection tubes in various materials and adapted to a variety of measurement demands. We also manufacture compression fittings, threaded nipples, screw fittings, springloaded bayonet mounts, mounting flanges, terminal heads and much more.



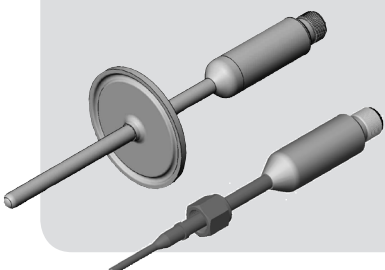
Temperature transmitters – conventional



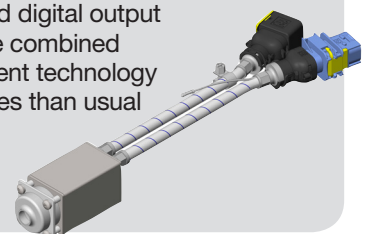
Signal transmission to the supervisory measurement and control system is often done with the help of transmitters or signal converters. We have a wide range of transmitters for mounting directly in the sensor's terminal head or in a control cabinet. The transmitters convert the signal from the temperature sensor to e.g. 4-20 mA, 0-10 V, PROFIBUS or HART and other signal buses.



Temperature transmitters – smart integrated



Pentronic's own smart transmitter series, for both 4-20 mA and digital output signals, has such small dimensions that the transmitter can be combined with a temperature sensor in a single unit. Highly energy-efficient technology allows the transmitter to withstand higher ambient temperatures than usual with retained measurement performance. The integration with the sensor makes it easy to do system calibration and thereby achieve extreme measurement accuracy.



IR pyrometers



An IR pyrometer takes non-contact temperature readings. For optimal pyrometer measurement, knowledge of IR technology is necessary. We are happy to give you advice and we also offer a wide selection from simple hand-held devices to advanced industrial pyrometers and thermal cameras for a variety of uses.



Hand-held thermometers



Small mobile thermometers are often required for functions like maintenance and inspection. We have a number of standard packages for the most common measurement needs. With our broad range of instruments, sensors and accessories we can easily customise the equipment to meet your requirements.



Indicators and control equipment



Temperature indicators can be everything from a simple panel-mounted display to advanced measuring bridges for laboratory use. We can help you to choose the right equipment. Pentronic markets temperature controllers with inputs for temperature sensors and other process signals. Our knowledge of measurement technology is important when choosing control equipment, sensors and other accessories.



Data loggers



Data loggers are an easy way to save documentation from such processes as production, trials and fault detection. We offer both simple and advanced models for the most demanding applications as well as temperature profiling tracker systems that accompany the product flow.



Calibration equipment



To ensure traceability in a company all the way to the process readings, calibration equipment is necessary. Thanks to the experience gained by our accredited laboratory, we have acquired a lot of knowledge in this field. We also have a wide selection of calibration equipment such as thermometer bridges, furnaces and baths.



Flow meters



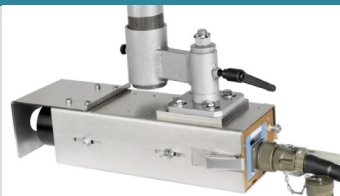
We have a selection of precise flow meters designed for liquids with highly varying viscosities. Examples of applications are paint and varnish, PUR, adhesives, PVC, hydraulic oil and pressurised air as well as flows in the food and pharmaceutical industries.



GFM Glass flow meters



The manufacture of glass wool insulation can be made much more efficient by measuring and controlling the flow of molten glass to the centrifuge that makes the glass wool. Pentronic manufactures, sells and services this niche product.



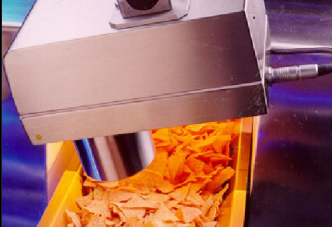
Electro-optical test systems



Pentronic is the representative of CI Systems, a world-leading supplier of test equipment for electro-optical systems. Black-body emitters are one part of the product collection. Customers are found in the military market and civilian circles. Applications include: thermal imagers, night sights, missile warning systems, laser systems and electro-optical sensors.



Moisture and thickness measuring instruments

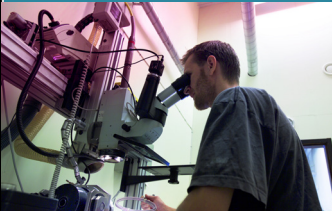


For many years Pentronic has supplied Swedish industry with equipment for the continuous, non-contact measurement of moisture, fat content, protein, etc. The thickness of layers and coatings can also be measured in this way. We also supply measuring instruments for laboratory use or in-process sampling. Applications include: paper, cellulose, carton and paper converting, forestry, bioenergy, food and pharmaceuticals.



PENTRONIC OFFERS MORE

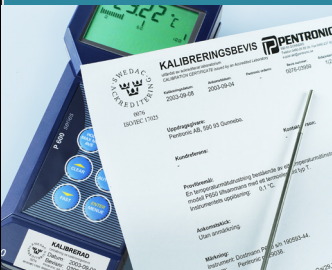
Knowledge and manufacturing



By controlling all important parts of the production chain we are able to re-invest all our gained knowledge and experience. We maintain a large inventory of standardised subcomponents, allowing us to build almost an unlimited number of sensor designs.



Accredited laboratory



Pentronic's in-house laboratory is accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) for the calibration of temperature sensors and indicating systems with varying measurement uncertainties down to at best ± 0.0016 °C. The scope of the accreditation covers calibration services in the range - 80 °C to 1200 °C. Our laboratory personnel can calibrate and take measurements at your premises within the accreditation.



Training



Pentronic offers theoretical and practical training in temperature measurement, maintenance, calibration and error sources as well as how to maintain traceability to global standards. The programme of courses was launched in 1991 and over the years we have trained more than 3,000 people over the world.



Learn more about temperature in our customer magazine

Pentronic News is our magazine that aims to keep you continually updated about the temperature field. With our articles on technology and techniques we want to show you the possibilities and pitfalls in the field of temperature measurement and calibration. You can find the online version at our website. If you would like a paper copy at no cost, just email your address details to info@pentronic.se and *Pentronic News* will arrive at your door four times a year.



Bergsliden 1, SE-593 96 Västervik, Sweden
Tel. +46 490-25 85 00, info@pentronic.se
www.pentronic.se