INTELLIGENT VACUUM MEASUREMENT
SINCE 1970

www.thyracont-vacuum.com
Intelligent Vacuum Measurement
Since 1970

Thyracont has been manufacturing vacuum metrology in Germany since 1970, giving quality and reliability the utmost importance through all departments.
Expertise and Responsiveness
Since 1970

Products
Our product portfolio includes vacuum sensors, vacuum transducers, vacuum meters, vacuum switches, controllers as well as accessories and vacuum components. Depending on your scope of tasks, we can offer a wide range of measuring principles in various combinations e.g.: piezo, Pirani, capacitive, cold cathode and hot cathode.

Applications
Vacuum allows a great variety of manufacturing processes. The same large field of applications is served by our vacuum products. Included applications are for example process industry, coating, analytics and R&D as well as semiconductor and solar.

Made in Germany since 1970
As an experienced specialist for vacuum, measurement and control technology, we use the latest tools for construction and simulation. Purpose-built testing and calibration equipment support our engineers when developing our path-breaking products.

Setting standards for decades
To bring forward innovative ideas in a team and apply them to own products - The number of patented innovations shows that this is one of our main strengths. Decade-long experience as a specialist for vacuum metrology helps us in this regard.

Expertise and Responsiveness
We are already involved today in your technological needs of tomorrow. Our ambition to fulfil even the most demanding requirements of complex applications helps our customers to reach their goals. We do not only stand for quality in terms of our gauges, precision is also essential for us within the entire manufacturing process, our quality management and our customer service.

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Product Overview
Vacuum Gauges

**VD8**
Compact vacuum meters with data logger

1600 - 5e-4 mbar

**Smartline™**
Intelligent vacuum transducers with digital interfaces

1200 - 5e-10 mbar

**Analogline**
Analog vacuum transducers with compact dimensions

1400 - 1e-4 mbar
# Product Overview

## Vacuum Gauges

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<td>VCP</td>
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Product Overview

Switches, components & more

Software & Accessories

Robust vacuum switches

1200 - 1e-3 mbar

Vacuum components

Calibration & Services
Product Overview
Switches, components & more

Software
Accessory sets
Connection adapters
Replacement sensor
IP54 mating plugs
Bluetooth adapter

VRP Pirani, 20 - 1e-3 mbar
VRC Piezo, 1200 - 5 mbar

Sealing elements
Pipe components, Spiral tubes
Filters and protective covers
Connection elements
Adapters and reduction pieces

Calibration
Maintenance and service
Switching point adjustment
Output-characteristics configuration
Warranty
Online shop
Consultation and application service

www.thyracont-vacuum.com
The compact vacuum meters of our VD8 series measure absolute pressure in the range of 1600 to 5e-4 mbar. Advanced electronics guarantee precise and reproducible measuring results.
Compact vacuum meters with data logger

An all-purpose gauge
The VD8 compact vacuum meter can be used as a portable instrument or for permanent installation in vacuum facilities. They can easily be connected to vacuum pumps or vacuum systems or be directly put in the vacuum chamber.

Comfortable recording of measurements
All VD8 compact vacuum meters feature an integrated data logger and save the pressure values independent of a PC throughout the measurement.

Maximum flexibility
Gauge type VD84 has an external Pirani sensor on a spiral cable. It is ideally suited for installation of the sensor in a position which is difficult to reach or to check the pressure at multiple measuring points. The external sensor stays permanently mounted at the respective facility.

Determining of leakage rates
VD8 are ideally suited to examine the tightness of vacuum chambers and vacuum systems via rate of rise measurement.

VacuGraph™ Software
VacuGraph vacuum software for Windows, Linux and MacOS enables an easy visualization and analysis of data. This is especially beneficial in applications where values must be documented e.g. by saving and comparing process characteristics for audits and quality assurance. Practical features like the tool to calculate the leakage rate complete the software.

www.thyracont-vacuum.com
The digital transducers of our Smartline series measure from 1200 to 5e-10 mbar and are characterized by their particularly efficient micro controllers. With their modern combination sensors these transducers are able to enter different pressure areas such as fine and high vacuum with high precision.

Two independent relay switch points

LEDs for status and switch points

Optional LCD display

Precise, individual temperature compensation

Easily exchangeable replacement sensors

Interfaces: 0-10 V, RS485

Push-Button for readjustment and degas

1200 to 5e-10 mbar
Intelligent vacuum transducers with digital interfaces

Durable sensors
The Pirani with increased measuring range in the Thyracont combination gauges controls the ionization sensors in such a way that they are only switched on at a very low pressure. This conserves the sensor technology and allows a long lifetime of the gauges. Alternatively, switch and transition ranges between the vacuum sensors are individually configurable.

Robust and reliable
The Pirani and cold cathode transducers are also available with a particularly high over pressure stability of 16 bar. As a service for the higher overpressure stability, we offer a corresponding inspection certificate 3.1 inclusive of a test report.

3-in-1 for loadlocks
The vacuum transducer VSL measures absolute pressure in the range of 1200...1e-4 mbar as well as relative pressure in relation to the environment in the range of -1060...+340 mbar (depending on ambient pressure). The metal sealed gauge head uses multi sensor technology combining two piezo sensors with a Pirani. Users thus profit from a reliable, space- and cost-saving solution. This gauge is designed in particular for the challenges involved in load lock applications and easy to integrate in the plant control system.

VacuGraph™ and VacuSniff™
The VacuGraph software for Windows, Linux and MacOS is the optimum tool to analyze, visualize and save your measurement data. For a comfortable gauge configuration there is even a free lite version of the software available. In combination with the Bluetooth adapter (SLKBT) the VacuGraph software can even be used on mobile devices (Android). Furthermore, a free sniffer app, VacuSniff, can be found in the Playstore. VacuSniff allows for the mobile monitoring of up to 16 Smartline vacuum transducers at the same time. The app also features an alarm function.

Useful replacement sensors
Thanks to our plug-and-play solution with calibrated exchange sensors, a quick and easy replacement of defective sensor heads can be made simply by the user. Time and cost for maintenance are thus reduced to a minimum.

Compatibility to competitor products
For the facile replacement of present transducers, the analog output signal is adapted to the required characteristic of the competitor product. Corresponding mating plugs provide the physical compatibility of the Smartline transducers. The switching from a different gauge is thus fast and easy for the user.

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Analogline
1400 to 1e-4 mbar

The transducers of the Analogline measure in the range of 1400 to 1e-4 mbar. Individually temperature compensated and equipped with their microprocessor control, the transducers reach an outstanding accuracy and a high stability of measurements.

- Robust stainless-steel housing
- Compact measurements
- Readjustment at the push of a button
- 4-20 mA or 0-10 V output
Analog vacuum transducers with compact dimensions

Compact and economical
Analogline transducers are ideally suited for applications where space is at a premium. At the same time the compact transducers offer an optimum price-performance ratio.

Standard output signal
The linear respectively logarithmic output signal of the transducers (4-20 mA or 0-10 V) can easily be read out by a plant control system (PLC). Controllers with 1 or 2 channels are available as well.

Passive vacuum sensors
The Pirani with durable, elastic helix filament is also available as a passive vacuum sensor. The customer can choose between the connection via DN16 ISO-KF flange (VSP841) or 1/8" NPT male thread. On demand, we will gladly provide you with a proposal regarding the evaluation circuit.

Simple and smart readjustment
Exact, digital readjustment to atmospheric pressure or zero pressure is possible via the push button „adj”(adjust). The transducer recognizes automatically which adjustment point is relevant.

Robust and reliable
In addition to their robust metal housing, Analogline transducers are fitted with electrical connectors that offer IP54 protection class for 4-20 mA models or IP40 protection class on 0-10 VDC models. A service for extra high overpressure stability of 16 bar abs. including a testing certificate 3.1 is available for our Piranis.

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Controller

The practical controllers are compatible with the gauges of the product lines Analogline (controllers VD6, VD12) and Smartline (controllers VD12, VD14). They enable the comfortable control of up to 4 devices.

- RS232 and USB interface
- 2 (VD12/VD6) or 4 (VD14) potential-free relay switches
- Pressure display in mbar, mTorr, Torr, hPa, Pa, bar
- Easy to use, menu-driven operator instructions
- For 0-10 V transducers
- For 4-20 mA transducers

Large, high-contrast LED display

USB interface
Controller
Analogline transducers can be combined with the vacuum controllers VD6 (1 channel, for 4-20 mA transducers) and VD12 (up to 2 channels, for 0-10 V transducers). The controllers come with further features and serial interfaces. For transducers of the Smartline series, the VD12 and VD14 are available.

Automatic identification
The transducers are connected in chains to the 2 or 4 channel controllers. The controller identifies automatically which types of transducers are connected.

VacuGraph™ Software
The parameters of the controller as well as the parameters of the transducers (e.g. units, output characteristics, gas type correction factors, switch points, etc.) can be easily adjusted using VacuGraph software (lite version available free of charge) or alternatively via software command.
Software
VacuGraph™ (VGR)

The VacuGraph software for Windows is the optimum tool to analyze, visualize and save your measurement data. For a comfortable gauge configuration there is even a free lite version of the software available.
Vacuum switches
1200 to 1e-3 mbar

The product series Vacuum switches offers the VRC (Piezo) with a chemically resistant ceramic sensor as well as the VRP (Pirani) with a durable Pirani filament. Both switches feature high reliability and excellent reproducibility.

- Robust metal housing with IP54 protection class
- Exact switch point adjustment by potentiometer
- Potential-free relay switch point (switch-over relay)
- Vacuum compatible connection

www.thyracont-vacuum.com
Vacuum components

We offer a wide range of vacuum components to enable the immediate use of our products for our customers. Special centering rings with integrated wire filter or baffles as well as spiral tubes protect your sensor against contamination.
Adapters and reduction pieces
For the quick adjustment of vacuum connections, we offer corresponding reduction pieces beside the diverse flange variations of our transducers. The adaption of small flange to diverse thread and hose connection is also easily possible.

Components against contamination and coating
Thyracont developed special metal baffles, constructed to prevent possible coating of the sensor to a large extent. They keep particles and oil molecules from getting into the vacuum sensor. Also seal rings with a fine wire filter can be used in the fine and high vacuum, to protect the vacuum sensor against dirt, dust and condensate.

Components against deposition
In rough and fine vacuum, different components help to capture deposits, which can be caused for example by oil lubricated vacuum pumps. Angle pieces and spiral tubes have proved successful as vapors condense on their cooler metal surface with protective effect on the vacuum sensors.

Connection and sealing elements
In order to enable a quick and easy installation of your gauge, you can also find clamps and centering rings within our product range.
We produce our entire range of measuring and control instruments ourselves. You will therefore receive straightforward responses for technical queries. Also, questions concerning offers and delivery times will be answered in a quick and accurate manner. A wide range of services and our experience as a specialist for vacuum metrology make us your partner of choice for vacuum solutions.
Expertise and Responsiveness

Professional calibration
Each sensor is provided with individual temperature compensation that is applied using a specially developed 4-point calibration method. These calibrations are traceable to national DAkkS standards for maximum measuring precision. Depending on the application, we suggest to have your gauges calibrated in annual intervals. A service contract with the duration of 5 years includes besides the yearly examination and works calibration also a reminder service.

Preventive service, maintenance and repair
To avoid cost intensive failures, our technical experts offer a large scale of consulting services. We gladly assist you regarding questions on how to optimally protect the devices in difficult applications. If a device shows malfunction, we do not only offer a professional repair service but can also provide you with exchange products for a quick replacement.

Warranty
Thyracont has always offered a warranty above legal standards. Competitors usually offer 12 months - the warranty period you receive on new Thyracont products has always been 24 months.

Online-Shop
Data sheets, drawings and prices of every single product can easily be seen in our online shop. There, you also have the possibility to request offers or directly place an order.

On site for you
It is especially important for us to always maintain the personal contact to our customers. Therefore, you can regularly meet us at exhibitions or conventions. Furthermore, our responsible sales representatives are gladly at your disposal for a personal consultation in your premises.
Expertise & Responsiveness

We have manufactured vacuum metrology and controllers since 1970. Satisfied customers are the utmost concern of our experienced, highly qualified staff. A wide range of services as well as our extensive knowledge of vacuum technology and its applications make us your partner of choice for vacuum solutions.