

ventiotec

# THE OVD1 - CONTROL

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The OVD-1 control is a temperature controller, which is especially designed for our OVD-3 evaporator, but can also be universally used. With the compact device a crucible can be exactly operated in each case. A single control device is available as a table device. Three control devices can be integrated side-by-side in a standard 19" rack. The connections for the thermocouple and the filament supplies are positioned on the front side and are thus easily accessible. In this way, the three crucibles of an OVD-3 vaporizer can be easily controlled sequentially with one OVD-1 control.

A PID controller which is controlled by a micro-controller from WiKa, a company with long lasting tradition, assures the precise control of the vaporizer cells. This is naturally equipped with an integrated self-optimization algorithm. This is equipped with a two-line, easily legible LED display. On these two lines, the setpoint and actual values are simultaneously displayed in contrasting colors. The essential parameters are thus quickly ascertainable at all times. The setpoint can be easily set using the push button under the display.

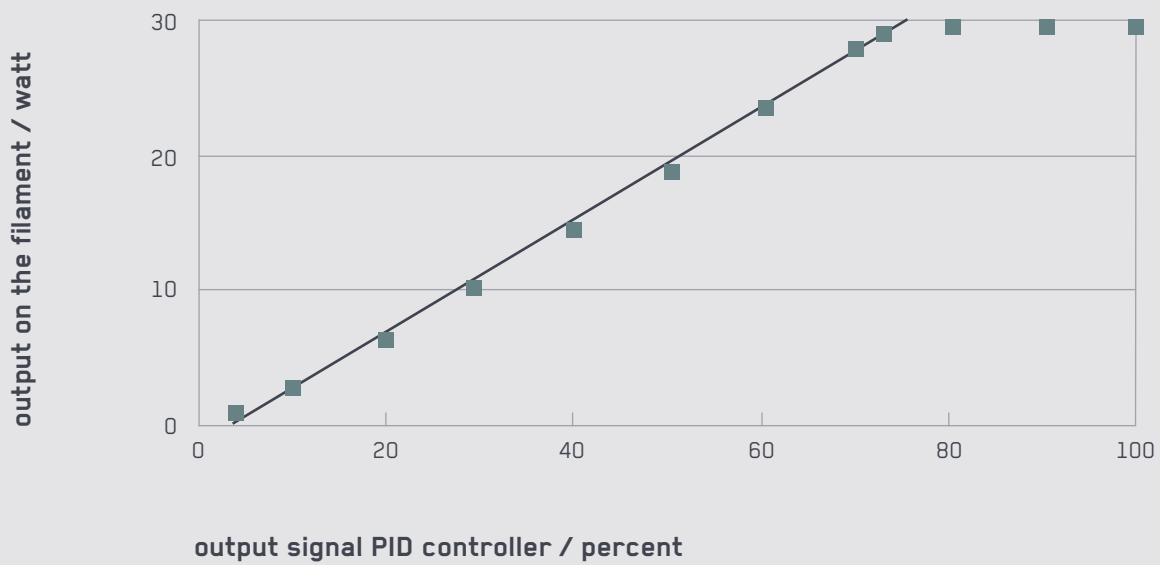
Moreover an amplifier stage, which extensively linearizes the control path, is connected downstream of the regulator, which works with a analog output signal. This guarantees that the controller optimally functions precisely in the overall range of 50°C to 600°C. In this way, an overshooting of the temperature during heating up of the crucible can be minimized and the heat-up time is kept short.

## TECHNICAL DATA

- PID controller with analog output signal and self optimization from WiKa, a company with long lasting tradition
- extensive linearization of the control path
- type K thermocouple input
- output is current-limited
- maximum output voltage:  $U_{\max}=12V$
- maximum heating output (with OVD3) approx.  $P=30W$
- design as table unit or 19" rack plug-in units
- filament breakage detector



## PERFORMANCE



## **INVENTION.CREATION.EXPLORATION**

Ventiotec offers consultation and know-how for the research and development in the sector of surface science, especially in the nano technology. The focus lies in the development of individual solutions for coatings (MBE) and their analysis.

Ventiotec is understood as a platform, on which new impulses, ideas, cooperation and initiatives are systematically further developed and conveyed. Ventiotec is equipped with an interdisciplinary team of specialists and generalists under the leadership of Dr. Thorsten Wagner [Dipl. Phys.] and Marcel Dolega [Dipl. Des., PMP]. Ventiotecs highest maxim is the transfer of know-how between branches, technologies and scientific disciplines. We bring new ideas, procedures and methods to your company. If required, we will use the comprehensive contacts of universities, institutions and partner companies.

Personal consultation is a matter of course for us. In case of questions, please call us or send an e-mail.

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