

HIGH-PERFORMANCE CERAMICS

OXYGEN SENSORS

Application:

Oxygen Measurement in Gases and Atmospheres

Material:

Zirkonium Oxide **DEGUSSIT FZY**

Oxygen sensors with yttrium-oxide-stabilised zirconium oxide made of **DEGUSSIT FZY** are suitable for measuring oxygen levels in gases and atmospheres in saturated surroundings as well as in ultra-high vacuum (UHV). Zirconium oxide sensors usually work at a temperature starting at 400°C. There are also, however, unheated sensors that are directly installed in the hightemperature processes, as well as heated sensors installed outside such processes.

The measurement electronics processes the electromotive force (EMF) transmitted by the sensor into a partial pressure of oxygen and its derivable value, which can, for example, be represented alphanumerically.

**Fields of Application:**

- ▶ Annealing processes
- ▶ Protective-gas monitoring
- ▶ Surface treatments (hardening plants)
- ▶ Redox processes
- ▶ Diffusion processes
- ▶ Biotechnical processes and food-packaging controls

Product Range:

- ▶ Tubes, one side closed, both sides open
- ▶ Panels
- ▶ Crucibles
- ▶ H-sleeves
- ▶ Spheres
- ▶ Moulded parts

- ▶ Resistant to temperature changes
- ▶ Corrosion resistant
- ▶ Application temperatures up to 1500°C
- ▶ Fast reaction with constant measurement signals

Competence in Advanced Ceramics
Engineering for customized solutions
