



POWER PLANT TECHNOLOGY

TEMPERATURE MEASUREMENT TECHNOLOGY FOR POWER GENERATION IN POWER PLANTS

Consultation. Solution. Innovation.



POWER PLANT TECHNOLOGY

ELECTRICITY, GAS, FIRE, STEAM – WE MEASURE WHERE FORCES ARE AT WORK

TEMPERATURE MEASUREMENT TECHNOLOGY FOR POWER GENERATION IN POWER PLANTS

Power plants are required to handle tremendous forces to supply us all with power. Demand for higher efficiency and lower carbon dioxide emissions paired with new operating parameters requires new approaches for obtaining measured values. RÖSSEL-Messtechnik is ahead of the curve with suitable measurement technology and solution-driven consulting. We have been a leading partner for temperature measurement technology in the power plant industry for several decades. Working in close cooperation with plant operators and manufacturers, we have completed a large number of projects and are always exploring new pioneering ways to record measured values.

When it comes to power plant technology, we don't just rely on our extensive expertise, but also our entire range of measurement technology products. These include high-voltage resistant and oil-

tight sensors, high-temperature thermocouples and sensors for potentially explosive atmospheres.

RÖSSEL-Messtechnik also produces technology such as ignition cables and ignition electrodes for igniting gas flows under extreme conditions. Whether you require standard components or user-specific designs – we offer solutions for all types of power plants.

Whatever the process, our experts are the first point of call!

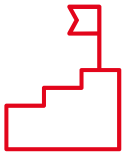
- ✓ High voltage resistant sensors up to 12 kV
- ✓ Acid, oil and fuel-resistant PFA and FEP insulated cables
- ✓ Sensors for potentially explosive areas
- ✓ P92 weld-in pockets for high-temperature materials
- ✓ Suitable for any control system (SIEMENS, ABB, Muel)





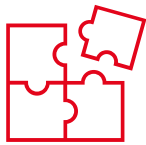
SAVING ENERGY WITH RED-HOT IDEAS

Gas-fired power plants are becoming increasingly significant in the energy revolution alongside solar and biogas power plants. Operating the latest generations of gas turbines requires not only high-performance temperature sensors, but also corresponding burner and ignition technology. Backed by its vast expertise in materials technology, development and manufacturing, RÖSSEL-Messtechnik has partnered up with one of the leading turbine manufacturers in Europe and Bureau Veritas to design an ignition cable that can withstand the highest loads produced by the latest generations of gas turbines.



THE CHALLENGE

When designing and developing ignition cables for gas turbines, the challenge lies in combining high-temperature materials (ceramics) while maintaining the highest dielectric strength up to 25 kV. IP6X protection also needs to be maintained. The ignition cable only needs to slightly reduce the steep ignition current ramp in order to pass the maximum ignition energy to the electrode.



THE SOLUTION

High-performance cables were designed and optimized in consultation with the customer, one of the leading turbine manufacturers in Europe, and Bureau Veritas. The required connecting elements made from ceramic materials were prepared for series production and tested under real conditions.



THE ADVANTAGE

Our expertise contributed to the standardization of the range of ignition cables for different types of gas turbines. RÖSSEL-Messtechnik designed an ignition cable capable of withstanding the highest loads produced by the latest generations of gas turbines. This development was successfully finalized within two years following approvals and testing. Our customers also benefit from the reliable supply of sensors and matching ignition technology from a single provider. The ignition cables and burner groups are fully manufactured by RÖSSEL-Messtechnik, allowing our customers to rely on high availability.



learn more...



Ignition cable



"I look forward to hearing from you
– feel free to get in touch!"

Jörg Krause

Power plant technology expert

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WE FIND
SOLUTIONS FOR



- + RAW MATERIAL EXTRACTION AND
SUPPLY PROCESS
- + COMBUSTION PROCESS
- + STARTING A GAS TURBINE
- + TRANSFORMATION
- + STEAM GENERATION
- + COOLING CIRCUITS / COOLING PRO-
CESS

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RÖSSEL-MESSTECHNIK – YOUR CERTIFIED PARTNER

As a leading manufacturer of temperature measuring technology for industrial and re-
search purposes, we meet the strictest pro-
duction standards. With internationally rec-
ognized approvals and calibrations, we offer
quality you can rely on around the globe.



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