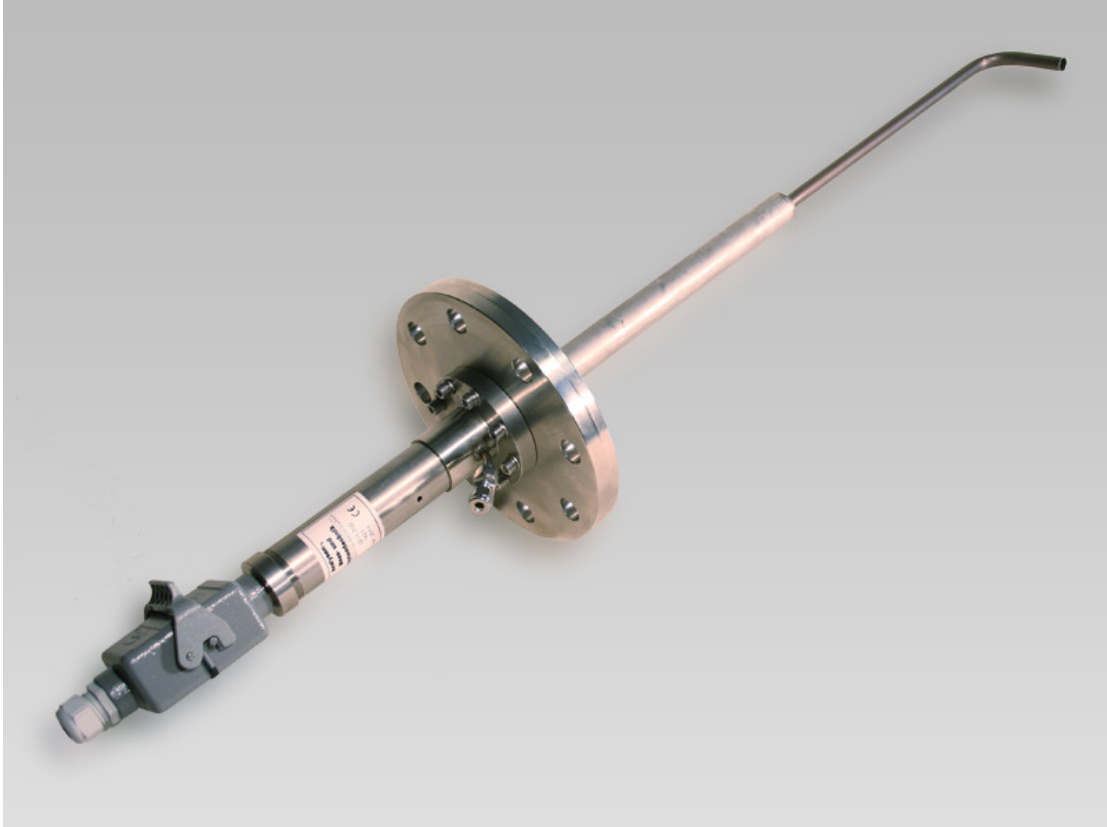


High Temperature Flue Gas Probe AMS 3211-700



The Application:

The Flue gas probe AMS 3211-700 can be used in applications with high temperatures but low dust loads. The Zircon dioxide sensor of the High temperature Flue gas probe AMS 3211-700 is installed in the flange of the probe. Due to the unique construction of the extraction probe as a Pitot tube, the Flue gas probe AMS 3211-700 supplies the measuring gas to the Zircon dioxide sensor by force of the flue gas flow. A bore hole in the head of the probe provides ambient air as reference air for the sensor. Therefore the High temperature Flue gas probe AMS 3211-700 does not require instrument air during the measurement. The probe design allows the exit of the measuring gas back into the process. In combination with the Transmitter AMS 3220 the High Temperature Flue gas probe AMS 3211-700 is certified for applications according to TA-Luft, 13. and 17. BImSchV and fulfils the requirements for QAL 1 according to EN 14181 and EN ISO 14956.

The Measuring principle:

All AMS Flue gas probes are equipped with Zircon dioxide sensors with Platinum electrodes which distinguish themselves by a long lifetime in the process. The Zircon dioxide sensor of the High temperature Flue gas probe AMS 3211-700 is installed in the flange of the probe to reduce the thermal load on the sensor. The measuring gas is supplied to the Zircon dioxide sensor by the flow of the gas through the Pitot tube. Due to the unique design the Flue gas probe AMS 3211-700 can be operated in temperatures up to 1400 °C. To replace the Zircon dioxide sensor of the High temperature Flue gas probe AMS 3211-700 the probe does not have to be dismantled from the duct.

The Measuring System:

The High temperature Flue gas probe AMS 3211-700 can be operated with the Transmitters AMS 3220 or AMS 5200 and a Pneumatic unit. Since the reference air is supplied mechanically by a bore in the head of the probe only one high pressure pneumatic tube is required to supply the calibration gas to the Zircon dioxide sensor. A multi wire, protected cable connects the Transmitter to the Flue gas probe electronically. Due to the modular construction of the Oxygen measuring systems of AMS the Transmitter can be installed inside the housing of the Pneumatic unit. This reduces the required length of both high pressure pneumatic hose and protected cable. The power supply for the Transmitter and the Flue gas probe is also installed in the GRP-housing of the Pneumatic unit. The flue gas probe, the Transmitter and the Pneumatic unit are manufactured according to the protection class IP 65 for General Applications. The Pitot tube of the Flue gas probe is made of temperature resistant Kanthal. Optional the High temperature Flue gas probe AMS 3211-700 can be fitted with Auto-calibration for the automatic time controlled calibration.

Technical Data

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|-----------------------------------|--|
| ZrO2 probe | AMS 3211-700 |
| Measuring principle | ZrO2 probe with Pt-electrodes |
| Application | Residual oxygen in flue gas |
| Construction | ZrO2 sensor installed in the sensor flange Gas supply to the sensor by pitot tube with outlet of the sample gas back into the process |
| Flue gas temp., max. | 1400 °C |
| Dust content (flue gas) | max. 2 Gram / Nm3, dry |
| Flue gas velocity | > 0,5 m/s |
| Time for pre-heating | ~ 10 Minutes |
| T90-Time | < 20 Seconds |
| Reaction time | < 5 Seconds |
| Probe length | 300 – 2000 mm |
| Material | Kanthal |
| Installation in the stack | any |
| Connecting flanges | DN 80 PN 16, DN 100 PN 16 |
| Protection | IP65 |
| Reference air supply | by diffusion of ambient air to the sensor through a hole in the probe head |
| Calibration gas supply | by separate pneumatic unit |
| Weight | ca. 6,5 kg |
| Accessories | |
| Transmitter | AMS 5200 / AMS 3220 in housing IP 65 |
| Pneumatic unit | GRP housing, Dimensions: 600 x 600 x 200 mm / 800 x 600 x 300 mm Auto-calibration optional |
| Version: AMS 3211-700 E V-2013-07 | |

Specifications subject to change