

## High temperature Flue Gas Probe AMS 3211-600



### The application:

The Zircon dioxide sensor of the High temperature Flue gas probe AMS 3211-600 is installed in the flange of the probe. To supply the flue gas to the Zircon dioxide sensor the probe is equipped with a pneumatic pump. The Flue gas probe AMS 3211-600 can be used for the measurement of Oxygen in flue gases from gaseous, liquid and solid fuels and biomass. In Applications with solid fuels and biomass the Standard In-Line Flue gas probe AMS 3211-600 is equipped with an additional Stainless steel tube to protect the probe against abrasion. In combination with the Transmitter AMS 3220 the High temperature Flue gas probe AMS 3211-600 is TÜV-certified according European and German environmental regulations and fulfils the requirements for QAL 1 according 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 3211-600 is installed in the flange of the probe to reduce the thermal load on the sensor. To supply the flue gas to the Zircon dioxide sensor the probe is equipped with a pneumatic pump. To operate the pneumatic pump of the Flue gas probe it has to be connected to a continuous instrument air supply with a pressure of 2 – 6 bar (g). Due to the unique design the Flue gas probe AMS 3211-600 can be operated in temperatures up to 1700 °C. The pneumatic suction of the flue gas allows the use of the High temperature Flue gas probe AMS 3211-600 even in ducts with large diameters. To replace the Zircon dioxide sensor of the High temperature Flue gas probe AMS 3211-600 the probe does not have to be dismantled from the duct.

## The Measuring System:

The High temperature Flue gas probe AMS 3211-600 can be operated with the Transmitters AMS 3220 or AMS 5200 and a Pneumatic unit. The Pneumatic unit is fitted with all necessary regulation and control instruments for the high-pressure air supply for the pneumatic pump. The power supply of the Flue gas probe and the Transmitter is also installed in 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. Since all AMS Flue gas probes are manufactured according to customer specification, the selection of the probe material as well as dimensions and sizes can be made fitting to any application. Optional the High temperature Flue gas probe AMS 3211-600 can be equipped with time controlled back purge for high dust applications and with Auto-calibration for the automatic, time controlled calibration. To replace an already existing continuous oxygen measuring system the High temperature Flue gas probe AMS 3211-600 can be fitted with all flange sizes both in DIN and ANSI dimensions.

## Technical Data

ZrO2 probe	<b>AMS 3211-600</b>
Measuring principle	ZrO2 probe with Pt-electrodes
Application	Residual oxygen in flue gas
Construction	ZrO2 sensor installed in the sensor flange with pneumatic pump
Flue gas temp., max.	1700 °C
Dust content (flue gas)	max. 5 Gram/Nm3
Flue gas velocity	< 20 m/s
Time for pre-heating	~ 10 Minutes
T90-Time	< 20 Seconds
Reaction time	< 5 Seconds
Probe length	150 – 1000 mm
Connecting flanges	DN 80 PN 16, DN 100 PN 16
Material	Ceramics, Kanthal
Installation in the stack	straight down
Protection	IP 65
Reference air supply	by separate pneumatic unit
Calibration gas supply	by separate pneumatic unit
Weight	ca. 6,5 kg
Accessories Transmitter Pneumatic unit	AMS 5200 / AMS 3220 in housing IP 65 GRP housing, Dimensions: 600 x 600 x 200 mm / 800 x 600 x 300 mm Auto-calibration optional
Version: AMS 3211-600 E V-2013-07	

Specifications subject to change