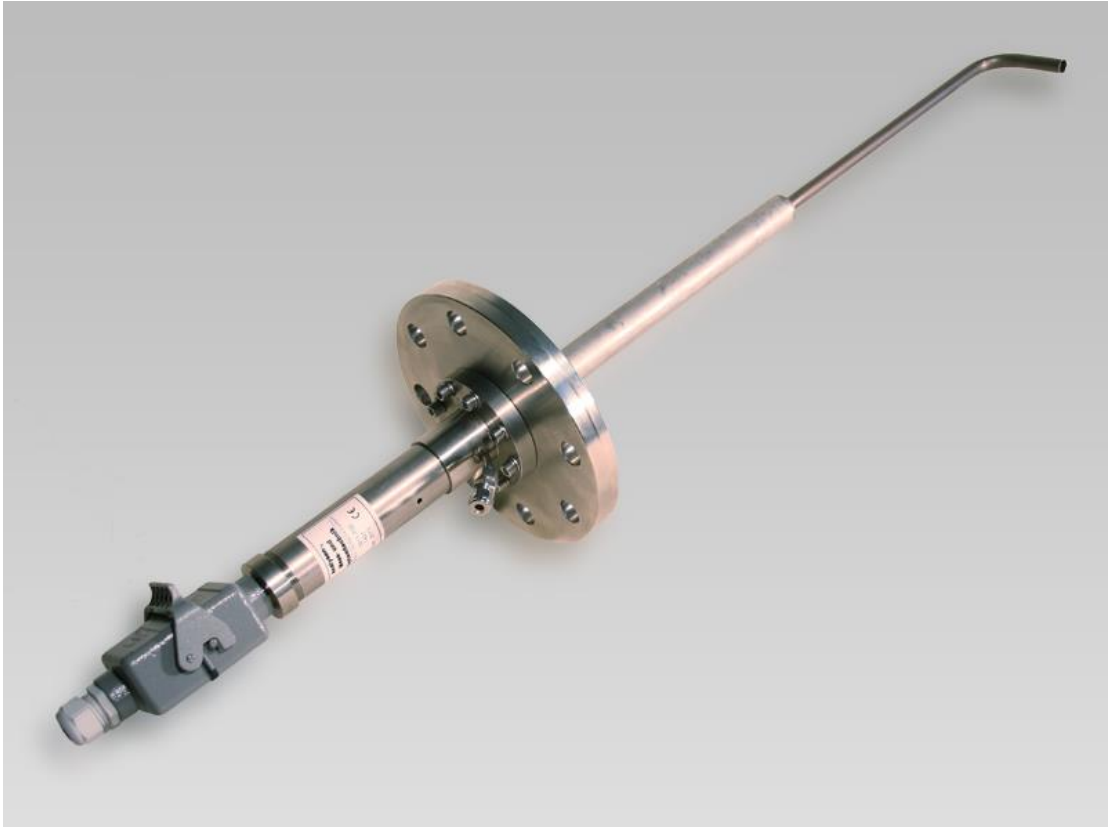


High Temperature Flue Gas Probe AMS 3211-700



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.

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

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	> 2 m/s
Time for pre-heating	~ 10 Minutes
T90-Time	< 20 Seconds
Reaction time	< 5 Seconds
Probe length	300 – 2000 mm
Material	Probe: Stainless steel Sampling tube: Kanthal
Installation in the stack	any
Connecting flanges	DN 80 PN 16, DN 100 PN 16 (other on request)
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 in housing IP 65
Pneumatic unit	GRP housing, Dimensions: 600 x 600 x 200 mm Auto-calibration optional
Version: AMS 3211-700 E V-2021-08	

Specifications subject to change