AMS | Analysen-, Mess- und Systemtechnik

Transmitter for AMS Flue gas probes
AMS 5200

available options:

pneumatic unit for supplying the probes with reference gas and / or calibration gas
automatic calibration by using a pneumatic unit

The Application:

The Transmitter AMS 5200 is the control, evaluation- and supply unit for all AMS Flue gas probes. The certification for QAL 1 according European and German Environmental Regulations is done.

The Measuring principle:

The AMS Flue gas probes are equipped with Zircon dioxide sensors with Platinum electrodes which are known for their long life expectancy. The Transmitter AMS 5200 supplies the current for the heater of the Zircon dioxide sensor. To increase the stability of the measuring values AMS regulates the temperature of the Zircon dioxide sensor within tight limits. The Transmitter AMS 5200 monitors continuously the Zircon dioxide sensor in the AMS flue gas probes for accuracy and plausibility.

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The Measuring system:

Typically the Transmitter AMS 5200 is mounted into the GRP housing of the pneumatic unit. The Transmitter AMS 5200 is mounted into a wall mounting housing with protection class IP 65 for General applications. For installations in Ex Zone 1 classified areas the Transmitter AMS 5200 is also available in an Ex-d certified housing.
The Transmitter AMS 5200 could be mounted in an optional pneumatic unit. Due to a 5-wire protected cable the Transmitter AMS 5200 is connected to the flue gas probe.Via the cable the probe is supplied with current for the heater of the Zircon dioxide sensor. Another wire transfers the measuring signals of the probe to the Transmitter AMS 5200 for evaluation. The display of the Transmitter shows the actual measuring values, the status signals and other important values such as heater current, offset and possible errors. The oxygen value is provided for further transmission via the potential free analogue signal port and via the digital RS 232 interface. The other values are available via potential free contacts. The calibration of the Zircon dioxide sensor in the flue gas probe can be accessed in the main menu of the Transmitter AMS 5200. During a calibration the analogue signal is “frozen” to the last valid measuring value. The status signal indicates “maintenance”. For use with the O2 / COe-Flue gas probe the Transmitter AMS 5200 is available as Twin-Version and provides separate measuring signals for the components O2 and COe.

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Technical Data

Analyser	**AMS 5200 Transmitter**
Measuring principle	ZrO2 sensor with Pt-electrodes
Application	flue gas measuremen Soldering machines OEM application Gases Industries Chemical Industries
Probes	AMS 3211-000 / 500 / 600 / 700 / 860 Ex
Measuring range Analogue signal port	0 … 25 Vol % (0) 4 … 20 mA or 0 … 10V, galvanically separated
Reproducability	+/- 2 % of the measuring value
Resolution	0,01 %
T90-Time	< 20 Seconds
Display	2* 16 digit, illuminated LCD display 1. Line: display of concentration in ppm or Vol % 2. Line: messages, device status, sensor parameters
Messages	1 system message (measuring value yes / no) max. 2 messages configurable as oxygen value, calibration message, measuring value in the range, flow rate
Digital communication	serial interface RS232, bidirectional
Ambient operating temp.	- 20 °C up to + 60 °C
Power supply	24 VDC / 110...230 VAC
Protection / Housing / Dimensions	IP65 / wall mounting housing / ca. 300 x 320 x 130 mm (hxbxt) Ex-d housing for Zone 1 / ca. 300 x 250 x 200 mm (hxbxt)
Weight	3,5 kg
Options	pneumatic unit for supplying the probes with reference gas and / or calibration gas automatic calibration by using a pneumatic unit
Version: AMS 5200 E V-2021-01	

Specifications subject to change.

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