

Catalytic Combustion AMS 7800 / 7800 Ex



The Application:

The AMS 7800 could be used for gas analysis or the sampling of smaller quantities of combustible gases which cannot apply directly into the environment or flared off. The oxidation of the combustible components is performed by a catalyst, but at a significantly lower temperature than thermal combustion. This results in lower consumption resources. The lifetime of such a unit is higher due to the lower material stress.

The Measuring principle:

In an electrical-heated catalyst filled with a special catalyst (platinum, palladium) the gas mixture is reacted through to the admixture of air in such a way that no sub-stoichiometric combustion takes place. To control the complete reaction, the resulting flue gas is reviewed by a ZrO₂ sensor. The design of the AMS 7800 leads to a switch off of the gas supply in cases of a sub-stoichiometric combustion. Therefore no unburned components could leave the analyser. The exhaust gas contains only CO₂, N₂, residual oxygen and condensate. The deduction could be let off against the atmosphere without any problems. Through to the design the analyser is service reduced, operator convenience and suitable for a wide range of applications.

The Measuring system:

The analyser AMS 7800 contains of two separated housings, one for the power supply and the evaluation unit and the other one for the pneumatic components for gas-mixture and –analysis. Therefore we are able to monitor the temperature in a better way (see technical data). The analyser is manufactured for General Purpose in protection class IP 65, optional the AMS 7800 is available for the use in Zone 2.

Technical Data

	AMS 7800 / 7800 Ex
Ex-classification	ATEX II 3G IIB+H2 T3 (Ex-Zone 2)
Measuring Ranges	According to application, not adjustable
Accuracy	Depends on the quality of the test and reference gases
Repeatability	Residual Oxygen 2,00% from measuring value
Analogue output Oxygen	4 ... 20 mA, max. load 500 Ohm
Display	2* 16 digit back-lit LCD display
Messages	3 meassages signalling the analyser state, relay contact max. load: 24V / 0,3 A ohmic load
Digital Communication	serial Interface RS232
Ambient temperature	from - 5 °C to + 40 °C, mounted sunprotect
Operating temperature	420 °C monitored
Gas connections	
Inlet / Outlet	6 / 12 mm, Ferrule pack
Gas flow volume	Measuring gas max. 30 NI/h Instrument Air max. 500 NI/h
Gas inlet pressure	$1 \leq p(g) \leq 10 \text{ bar (g)}$
Power supply	110 or 230 VAC / 50 Hz, max. 1.000 VA
Protection class / Housing	IP65 / 760 x 600 x 210 mm (HxWxD)
Weight	~45 kg depending on options and protection class
Options	ATEX Zone 2
Version: AMS 7800 E V-2022-02	

Specification subject to change.