

CGS500-VQ41

Ammonia & Kerosene Vapour Sensor

- Temperature compensated
- Low drift
- Long life
- Fast response time
- Rugged stainless steel body
- Detects ammonia & kerosene vapour
- Many accessories available
- Certified ATEX II 2 G EEx d IIC T6

The CGS500 combustible gas sensor has been designed to measure concentrations of ammonia in the range 0-10% LEL (0-1.5% by volume) and kerosene vapour in the range 0-100% LEL. The CGS500 is available as a sensor only or fitted in an EEx e certified junction box.

Each sensor contains two thermocatalytic elements. Combustible gases will oxidise on the surface of the active element while the reference element compensates for changes in temperature, pressure etc. Each element consists of a coil of fine platinum wire surrounded by an alumina based substrate containing a catalyst.



An electric current is passed through the elements which raises the temperature to a level where oxidation will occur. The catalyst reduces the temperature at which oxidation occurs, thus prolonging the life of the elements and resulting in much lower power consumption.

The thermocatalytic elements are mounted on a printed circuit board and fitted in a rugged stainless steel body. The sensor circuitry is encapsulated in a flame retardant casting resin and the entire sensor is certified ATEX II 2 G EEx d IIC T6.

CGS500-VQ41 Ammonia & Kerosene Vapour Sensor Specifications

Operating voltage and current	2.05Vdc \pm 0.05Vdc @ 300mA
Detection range	0-100% LEL
T90 response time	Typically < 60 seconds
Stabilisation time	1 minute (preconditioning time, 1 hour)
Operating temperature range	-20°C to +40°C
Humidity range	10% to 90% RH non-condensing
Sensor bridge output	20mv at 1% ammonia (typical)
Typical sensor life	3 to 5 years
Threads	Mounting thread: M25 X 1.5mm Accessory thread M42 x 1.5mm
Weight	Sensor: 400g Standard junction box: 300g
Size of junction box (excluding sensor)	W: 75mm, D: 58mm, H: 80mm
Electromagnetic Conformance (EMC)	Complies with EN50081 and EN50082
ATEX certification	II 2 G EExd IIC T6 (Certificate No.BAS00ATEX2246X)

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