

**T100 Toxic Gas Detector**

- 2-wire, 4-20mA Transmitter
- Plug-in electrochemical sensor
- Built-in ZERO & SPAN controls
- One person calibration
- SMD electronic circuitry
- Enhanced HF and EMI resistance
- Cost effective with high performance
- Works with most 4-20mA controllers
- Calibration gas ampoules available
- Certified ATEX & IEC Ex to IEC 71

The T100 is a 4-20mA, 2-wire transmitter to measure a wide range of gases and is housed in a rugged, compact metal enclosure. It incorporates advanced SMT electronics and an electrochemical sensor based on micro-fuel cell technology, designed to be maintenance free and inherently stable.

The sensor uses the highly successful capillary diffusion barrier technology, resulting in a low temperature coefficient and a direct response to concentration, relatively unaffected by pressure. The use of electrodes based on fuel cell technology gives a high reserve of activity which results in long-term stability.

Gas diffusing to the sensor electrode reacts at the surface of the electrode either by oxidation (e.g. CO, H<sub>2</sub>, SO<sub>2</sub>, NO, H<sub>2</sub>, HCN, HCl, O<sub>2</sub>, C<sub>2</sub>H<sub>2</sub>, SH, NH<sub>3</sub>, etc.) or by reduction (NO<sub>2</sub>, O<sub>2</sub>, CO<sub>2</sub>, and O<sub>3</sub>). Reactions are catalysed by specially developed electrode materials and are designed to be specific to the gas being sensed.

**C6500 Combustible Gas Detector**

- Temperature compensated
- Low drift
- Improved poison resistance
- Long life
- Fast response time
- Rugged stainless steel sensor
- Detects combustible gases and solvents
- Many accessories available
- Certified ATEX & IEC Ex to IEC 71

The C6500 combustible gas sensor has been designed to measure concentrations of combustible gases in the range 0-100% LEL. The C6500 is available as a sensor only or fitted in an Ex 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 C6500 sensor is available with alternative elements. The C6500-HP20 is general purpose robust sensor. The C6500-500P has enhanced poison resistance and the C6500-VQ41 is optimised for monitoring concentrations of ammonia and benzene.