Product Engineering Specification
Sensepoint XCD

Product type

- 3 wire 4-20mA flammable, Oxygen and toxic gas detector

Honeywell product offering

- Sensepoint XCD

Engineering contractors and consultants need to generate detailed specifications for any products selected for a given project. These specifications are issued to prospective vendors as part of a tender package. The text below represents a typical product specification for a 3 wire 4-20mA flammable, toxic and Oxygen gas detector, the Honeywell Analytics Sensepoint XCD.

Typical product specification:

A 3 wire 4-20mA output flammable, toxic or Oxygen gas detector is required for the detection of (insert gas name). The detector should be capable of measuring the target gas in the range 0 to (insert full scale value and unit) and be user adjustable.

The detector should be certified for use within potentially explosive atmospheres. Detector assemblies should be Honeywell Analytics type Sensepoint XCD or approved equivalent.

The detector is to be explosion proof, certified to European (ATEX) II 2 GD Ex d IIC Gb T6 Ex tb IIIC T85°C Db, International (IECEx) IEC Ex II 2 GD Ex d IIC Gb T6 Ex tb IIIC T85°C Db, North American (UL) and Canadian (CSA/cUL) Class 1, Div 1, groups B,C,D. The certified temperature range should be -40°C to +65°C.

The detector should be suitable for outdoor use with an ingress protection rating of IP66 / NEMA 4X. Two M20 (or ¾ NPT) cable entries should be provided. The transmitter should be available in painted aluminium LM25 or painted stainless steel 316. The total assembly should weigh less than 2kg (4.4lbs) for aluminium version or 5kg (11lbs) for the stainless steel version.

The detector should include a tri-colour backlit LCD that indicates the unit's status. A steady green backlight indicates normal operation, flashing yellow indicates warning/fault and flashing red indicates an alarm. The display should utilise digits, bar graph and icons.

The scale, range, relay operation, alarm set point and electronic tag number of the detector should be adjustable using the transmitter's LCD and the non-intrusive magnetic switches.

The detector should operate from 16 to 32VDC (24VDC nominal) supply and include 2 programmable alarm relays, 1 programmable fault relay as well as an industry standard 4-20mA output (sink or source selectable).

On-board diagnostics should provide fault and warning codes on the display and be capable of generating a ≥0.0<1.0mA output in the event of a fault.

Stainless steel smart gas sensors should hold calibration data and information of when recalibration is due. Toxic gas detection should be made using diffusion controlled electrochemical cells ideally of the 'Sure Cell' type suitable for operation in both hot and humid applications. The sensor assembly should incorporate an automatic sensor test facility e.g. Reflex™ to ensure sensor presence and operation. Flammable gas detection should be made using poison resistant catalytic sensors or poison immune infrared sensors. The smart sensor should utilise a simple plug in arrangement.

A sensor weather protection housing with test gas spigot and integral wall mounting bracket should be included as standard.