Avaco SYSTEMS
& Safe Solutions

DGT - kex
digital gas transmitter for EX / Atex areas

Simple wall assembly. Clear LCD display

Enclosure dimensions: Ø110mm, d127mm, weight 1,66 kg
Ingress protection: IP 66

General:

The combination of Avaco Systems & Safe Solutions is a service package that includes skilled expert services, design assistance, high-quality equipment deliveries and after-sales marketing consultations.

DGT–kex serial digital gas sensor / transmitter is a new and innovative device for different gas controls. The DGT-kex detector is designed for detecting flammable gases, hydro-carbons and solvents and it is certified for use in Zone 1 and 2.

The **DGT-kex** transmitter will be customised at the factory according to the customers detection needs. The measuring range will be calibrated according to the measured gases and measuring requirements in order to find the best solutions for each application.
Measuring range is normally 0 – 100 % LEL.
Easy-to-read local display enables measure reading at the working area.

Usage:

The standard linear output signal of the **DGT-kex** enables the unit to be easily connected to Scan-serial controllers or other existing control systems and equipment if desired.
The **DGT-kex** units form a reliable and efficient system for gas detection with comprehensive alarm and control functions.

Installation:

The delivery of the equipment includes instructions for the installation and the connection.
The cabling shall be done according to the diagrams with the delivery.

Installation height will be determined according to the density of the measured gases, e.g.

Methane CH_4 0,55 / air =1 Ceiling installation
Hydrogen H_2 0,07 / air =1 Ceiling installation
Propane C_3H_8 1,52 / air =1 wall installation

Calibration:

The detectors are delivered factory calibrated according to the measuring range. After installation it is recommended to calibrate the detectors at least once per year.
The calibration and maintenance services shall be carried out by authorized maintenance personnel

Application:

- Process industry
- Chemical industry
- Metal industry
- Oil industry
- Natural gas stations
- Printing houses

DGT-kex
Technical data:

digital gas sensor / transmitter

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PRINCIPLE AND GASES:

Sensor type:	Catalytic (pellistor)
Measuring Range:	Typical range 0 - 100% LEL

Target gas: Hydrocarbons (HC) and organic vapours, such as
Methane (CH4), Propane (C3H8), Butane (C4H10), Pentane (C5H12),
Hexane (C6H14), Heptane (C7H16), Oktane (C8H18), Metanol (CH4O),
Etanol (C2H6O), Propanol (C3H8O), Asetone (C3H6O), MEK (C4H8O),
Toluene (C7H8), Etyl acetate (C4H8O2), Hydrogen (H2), Ammonia (NH3),
Carbon monoxide (CO), Cyklo hexane (C6H12), petrol (HC)

T90 Response time: < 30 seconds (typical)

Sensor life time: 5 years

Calibration: The detectors are delivered factory calibrated to the measuring range.
After installation it is recommended to calibrate the detector at least once per year.
It is also recommended to do functional tests to the detector 4-6 times a year.

ENVIRONMENTAL:

Operating temperature:	DGT-kex in zone 1 and 2 -40 … +65 °C
Operating humidity:	0…95 % RH non condensing
Operating pressure:	Normal air pressure +/- 10%

ELECTRICAL:

Output signal:	4 - 20 mA linear response l
Operating voltage:	24 V DC, +/- 20 %, regulated
Cable requirements:	Safe zone: 3 electrode, 4-wire connection e.g. Jamak 2 x (2+1) x 0,5 mm² (or equal)
	Ex zone: cable must be in accordance with 60079-14 standard
Power consumption:	3 W (max)

ENCLOSURE:

	installation Possibilities: wall, ceiling and pipe assembly
Material:	Aluminium (standard) or AISI 316L (special enclosure), epoxy paint
Degree protection:	IP66
Dimensions:	185 mm x 129 mm (height x depth). Ø110mm, Weight 1,8 kg
Cable penetration:	Body: nickel-plated brass (standard) or AISI 316L (for AISI 316L enclosure)
	Gasket: CMP SOLO LSF thermoplastic elastomer

CERTIFICATE:

	EC-TYPE EXAMINATION CERTIFICATE:
	Equipment or Protective Systems Intended for use in Potentially explosives atmospheres
	Directive 2014/34/EU
Reference:	Reference: Eurofins (Notified Body Number 0537)

Atex marking: **II 2 G Ex db IIC T6 Gb**

DGT gas detectors

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