

DGT - eex

Digital gas transmitter for EX / Atex areas

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.

The DGT- eex digital gas transmitter is a new and innovative device for different controls and alarms. The DGT-eex detector is designed for detecting oxygen, hydrogen and toxic gases in EX / Atex areas and is certified for use in Zones 1 and 2.

The DGT-eex transmitter will be customised at the factory according to the customers detection needs. The electro chemical sensor element will be chosen according to the measured gases and measuring requirements in order to find the best solutions for each application.

THE RISKS MUST BE RECOGNISED:

In handling, stowing and transporting toxic gases or oxygen there are always a risk of health and accidents. High-risk periods can appear also outside of the normal working time, when the places are unoccupied, control rounds are arranged periodically or control actions outside of the working time are neglected.

USAGE:

Together with Scan-20 or Scan-200 controllers or other existing control systems the DGT-eex units form a reliable and efficient system for gas detection with comprehensive alarm and control functions.

The standard linear 4-20 mA output signal of the DGT-eex enables the unit to be easily connected to existing control systems and equipment if desired.

Supply is 24 VDC +/- 20 %.

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.

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



Simple wall assembly. Clear LCD display

Enclosure dimensions: Ø110mm (d129mm),
weight 1,8 kg, Ingress protection: IP 66



APPLICATION:

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

Technical data:

SENSOR TYPE: Electro chemical cell
DETECTED GASES: Oxygen, hydrogen and other toxic gases

Gas		Measrumenet Range	Sensor replace frequency	Operating temperature (EX in brackets)	T90 response time
NH ₃	Ammonia	0 – 200 ppm	24 months	-20 ...+40°C	< 60 s
NH ₃	Ammonia	0 – 1000 ppm	24 months	-20 ...+40°C	< 95 s
O ₂	Oxygen	0 – 25 %	24 months	-20 ...+55°C	< 20 s
CO	Carbon Monoxide	0 – 1000 ppm	24 months	-20 ...+50°C	< 30 s
H ₂ S	Hydrogen Sulfide	0 – 50 ppm	24 months	-20 ...+50°C	< 45 s
H ₂	Hydrogen	0 –10000 ppm	24 months	-20 ...+50°C	< 115 s

Ask for other gases

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 humidity: 15...90 % RH non-condensing (Momentary 0...99% RH for Oxygen)
 Operating pressure: Operating air pressure – Normal air pressure +/- 10 %

ELECTRICAL:
 Output signal: 4 - 20 mA linear response I
 Operating voltage: 24 V DC, +/- 20 %, regulated
 Cable requirements: Safe zone: 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: VTT 09 ATEX 063X (Notified Body Number 0537)

EX MARKING



II 2 G Ex d IIC T6
 II 2 D Ex tD A21 T85°C IP65



DGT gas detectors

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