

Heptane, Combustible gas Fieldbus Detector - ModBus, BacNet





Features

- Digital measurement value processing incl. temperature compensation
- Internal functional control with integrated Hardware Watchdog
- Data / measured values in µC Sensor, therefore simple exchange of sensor uncalibrated <> calibrated
- Software according to SIL2 compliant development process
- Modular technology (plug-in and replaceable)
- Easy maintenance and calibration by exchange of the sensor cartridge or by comfortable on-site calibration
- Serial RS 485 interface with protocol for CGD06 Modbus and BacNet.
- IP 65 version

Technical Data

Electrical

Power supply 16 – 29 Vdc, reverse-polarity pro-

Power consumption 10 mA (0.24 VA), 24Vdc **Output for GCD bus** 5 Vdc, 250 mA max.

Overload, short-circuit and reverse-

polarity protected

General

-20 °C to +50 °C (-31 °F to 122 °F) Temperature range **Humidity range** 15 - 90 % r.H non-condensing Storage temperature 5 °C to 30 °C (41 °F to 86 °F)

Storage time 6 months

Serial interface

GCD bus 1-wire / 19200 Baud Field bus RS 485 / 19200 Baud **Tool bus** 2-wire / 19200 Baud Mounting height 0.2 m above floor

Physical

Wire connection:

Local bus for sensor

Field bus Screw-type terminal min. 0.25 mm²,

max. 2.5 mm² 3-pin connector

Directives EMC directives 2004/108/EC

Conformity to: EN 50271 EN 61010-1:2010 ANSI/UL 61010-1

CAN/CSA-C22.2 No. 61010-1

Housing 90 x 130 x 57 mm

Application

The Fieldbus Detector is used for integration in bus network.

Design Features

The detector provides the power supply of the sensors and makes the measured data available for digital communication.

Communication with the CGD06 controller takes place via the RS 485 fieldbus interface with CGD06 protocol.

Other communication protocols as Modbus and BacNet for direct connection to superordinate BMS are available.

The sensor is connected to the local bus via a plug connection enabling simple exchange instead of an on-site calibration.

The internal X-Change routine recognizes the exchanging process and the exchanged sensor and starts the measurement mode automatically.

An LED indicates the correct procedure of the exchange operation.

As an alternative, the on-site calibration via the CGD06 Service Tool can be performed with the integrated, comfortable calibration routine.

Ordering Codes

BHEP 100M ModBus Pentane 0-100% LEL 16-29Vdc **BHEP 100B** BacNet Pentane 0-100% LEL 16-29Vdc **BHEP 100C** CGD-bus Pentane 0-100% LEL 16-29Vdc **XHEP 100** Sensor 0-100% LEL for exchange (3 years) Head

BBUZ Built-in buzzer

BBUZ LED Buzzer with built-in LED indication

BDUCT Duct Kit



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Technical Data	Sensor
Electrical	
Power supply	5 Vdc from sensor board, reverse polarity protected
Power consumption:	200 mA, max. (1.0 VA)
Serial interface local bus	1-wire / 19200 Baud
Sensor element	Pellistor (catalytic bead sensor)
Measuring range	0 – 100 % LEL
Accuracy	± 1 % LEL
Resolution	0.2%
Repeatability	< 1 % sig.
Response time t ₉₀	10 sec.
Zero point variation	0.5 %
Long-term zero-point drift	< 0.3 % LEL / month
Long-term sensitivity drift	< 1 % LEL / month
Temperature range	-20 to +50 °C (-4 to 122 °F)
Humidity range	5 - 95 % r.H non-condensing
Pressure range	Atmospheric ± 20 %
Sensor life time	> 36 months / normal ambient conditions
Calibration interval ¹	6 months
Storage temperature range	+ 5 to + 30 °C (41 to 86 °F)
Storage time	6 months
Poisoning	The sensitivity of Pellistor sensors can be influenced by substances containing silicon compounds and even poisoned and destroyed by them.
Warranty	1 year on material (without sensor

 $^{^{\}rm 1}$ Manufacturer-recommended calibration interval for normal environmental conditions.

element)

Ordering Codes, cont'd

DR 24/30 Power supply 24Vdc
BSTAIN Option, stainless housing

REG Pressure regulator, flow adjustment to 0.5 l/min

GAS Calibration Gas 17 liter

GKIT Calibration Kit

Alarm Units

AAW 24	Warning Horn 24Vdc 98dB
AAW 230	Warning Horn 230Vac 98dB
OA 24	Flashlight 24Vdc, red
OAW 24	Combined Warning Horn/Flashlight

OAW 230 Combined Warning Horn/Flashlight, 24Vdc 98dB
Combined Warning Horn/Flashlight, 230Vac

98dB

OAW 24T Combined Warning Horn/Flashlight with reset

button, 24Vdc 98dB

Warning Plate

Gas Alarm Flashing gas alarm plate "GASALARM" 24Vac/dc

Set-up and Standard Alarm Levels

0 - 100% LEL

- Early alarm level set at 10% LEL

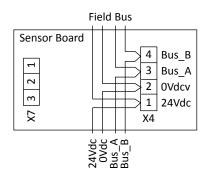
- Emergency alarm level ser at 20% LEL

Special protection for people and buildings. The units are manufactured in accordance with the rules and directives such as EN50545.

Products delivered by the AP meets and exceeds the requirements of the new European standard EN50545.

Safety functions control devices for connection warnings regarding functionality and open circuit - day and night. Level SIL2 according to EN 50271.

Electrical connection



We cannot be held responsible for errors in the manual/datasheet and reserve the right to correct any errors and to make product improvements, which may affect the accuracy of the manual/datasheet, without prior notice.