

Pentane, 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

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

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:

Field bus Screw-type terminal min. 0.25 mm²,

max. 2.5 mm² 3-pin connector

Local bus for sensor

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

BPEN 100M ModBus Pentane 0-100% LEL 16-29Vdc **BPEN 100B** BacNet Pentane 0-100% LEL 16-29Vdc **BPEN 100C** CGD-bus Pentane 0-100% LEL 16-29Vdc **XPEN 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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BPEN

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Technical Data	Sensor	Ordering Codes, cont'd	
Electrical		DR 24/30	Power supply 24Vdc
Power supply	5 Vdc from sensor board, reverse polarity protected	BSTAIN	Option, stainless housing
Power consumption: Serial interface local bus	200 mA, max. (1.0 VA) 1-wire / 19200 Baud	REG GAS GKIT	Pressure regulator, flow adjustment to 0.5 I/min Calibration Gas 17 liter Calibration Kit
Sensor element Measuring range Accuracy Resolution Repeatability Response time t ₉₀ Zero point variation Long-term zero-point drift Long-term sensitivity drift Temperature range Humidity range Pressure range Sensor life time		Alarm Units AAW 24 AAW 230 OA 24 OAW 24 OAW 230 OAW 24T Warning Plate Gas Alarm	Warning Horn 24Vdc 98dB Warning Horn 230Vac 98dB Flashlight 24Vdc, red Combined Warning Horn/Flashlight, 24Vdc 98dB Combined Warning Horn/Flashlight, 230Vac 98dB Combined Warning Horn/Flashlight with reset button, 24Vdc 98dB Flashing gas alarm plate "GASALARM" 24Vac/dc
Calibration interval ¹	6 months	C - +	Show down! Alarmy Lavala
Storage temperature range	+ 5 to + 30 °C (41 to 86 °F)	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.	
Storage time Poisoning	6 months 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		

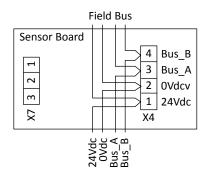
¹ Manufacturer-recommended calibration interval for normal environmental conditions.

element)

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.