

Petrol Vapors, Combustible gas Fieldbus Detector - ModBus, BacNet

BPET





16 – 29 Vdc, reverse-polarity pro-

Overload, short-circuit and reverse-

10 mA (0.24 VA), 24Vdc

5 Vdc, 250 mA max.

polarity protected

tected

Technical Data

Electrical

Power supply

Power consumption Output for GCD bus

General

Temperature range
Humidity range
Storage temperature
Storage time
Serial interface
GCD bus
Field bus
Tool bus
Mounting height
Physical
Wire connection:
Field bus
Local bus for sensor
Directives

-20 °C to +50 °C (-31 °F to 122 °F)
15 - 90 % r.H non-condensing
5 °C to 30 °C (41 °F to 86 °F)
6 months

1-wire / 19200 Baud RS 485 / 19200 Baud 2-wire / 19200 Baud **0.2 m below ceiling**

Screw-type terminal min. 0.25 mm², max. 2.5 mm² 3-pin connector EMC directives 2004/108/EC CE Conformity to: EN 50271 EN 61010-1:2010 ANSI/UL 61010-1 CAN/CSA-C22.2 No. 61010-1 90 x 130 x 57 mm

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

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					
BPET 100M	ModBus	0-100% LEL 16-29Vdc			
BPET 100B	BacNet	0-100% LEL 16-29Vdc			
BPET 100C	CGD-bus	0-100% LEL 16-29Vdc			
XBPET 100	Sensor Head	0-100% LEL for exchange (3 years)			
BBUZ	Built-in buzzer				
BBUZ LED	Buzzer with built-in LED indication				
BDUCT	Duct Kit				

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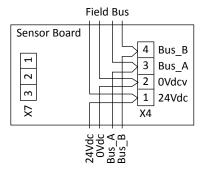
Technical Data	Sensor	Ordering Co	Ordering Codes, cont'd	
Electrical		DR 24/30	Power supply 24Vdc	
Power supply	5 Vdc from sensor board, reverse polarity protected	BSTAIN	Option, stainless housing	
Power consumption: Serial interface local bus	200 mA, max. (1.0 VA) 1-wire / 19200 Baud	REG GAS GKIT	Pressure regulator, flow adjustment to 0.5 l/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	< 1 % LEL / month	Alarm Units AAW 24 AAW 230 OA 24 OAW 24 OAW 230 OAW 24T	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	
Temperature range Humidity range Pressure range Sensor life time Calibration interval ¹	 -20 to +50 °C (-4 to 122 °F) 5 - 95 % r.H non-condensing Atmospheric ± 20 % > 36 months / normal ambient conditions 6 months 	Warning Plate Gas Alarm	Flashing gas alarm plate "GASALARM" 24Vac/dc	
Storage temperature range Storage time Poisoning	 + 5 to + 30 °C (41 to 86 °F) 6 months The sensitivity of Pellistor sensors can be influenced by substances containing silicon compounds and even poisoned and destroyed by them. 	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.		
Warranty 1 year on material (without sensor element)		Products delivered by the AP meets and exceeds the requirements		

¹ Manufacturer-recommended calibration interval for normal environmental conditions.

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.

