

Methyl Ethyl Ketone, Combustible gas Fieldbus Detector - ModBus, BacNet

BMEK

Mar. 16





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.

Technical Data

Electrical Power supply Power consumption **Output for GCD bus 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 CF

16 - 29 Vdc, reverse-polarity protected 10 mA (0.24 VA), 24Vdc 5 Vdc, 250 mA max. Overload, short-circuit and reversepolarity protected -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 above floor Screw-type terminal min. 0.25 mm², max. 2.5 mm² 3-pin connector EMC directives 2004/108/EC 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

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

-			
BMEK 100M	ModBus	0-100% LEL 16-29Vdc	
BMEK 100B	BacNet	0-100% LEL 16-29Vdc	
BMEK 100C	CGD-bus	0-100% LEL 16-29Vdc	
XMEK 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		

Housing



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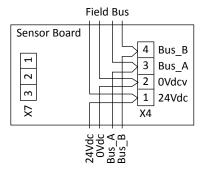
Technical Data Sensor		Ordering Codes, cont'd		
Electrical		DR 24/30	Power supply 24Vdc	
Power supply	5 Vdc from sensor board, reverse polarity protected	BSTAIN	Option, stainless housing	
Power consumption:	sumption: 200 mA, max. (1.0 VA)	REG	Pressure regulator, flow adjustment to 0.5 I/min	
Serial interface local bus		GAS	Calibration Gas 17 liter	
		GKIT	Calibration Kit	
Sensor element	Pellistor (catalytic bead sensor)			
Measuring range	0 – 100 % LEL	Alarm Units		
Accuracy	± 1 % LEL	AAW 24	Warning Horn 24Vdc 98dB	
Resolution	0.2%	AAW 230	Warning Horn 230Vac 98dB	
Repeatability	< 1 % sig.	OA 24	Flashlight 24Vdc, red	
Response time t _{an}	10 sec.	OAW 24	Combined Warning Horn/Flashlight, 24Vdc 98dB	
Zero point variation	0.5 %	OAW 230	Combined Warning Horn/Flashlight, 230Vac 98dB	
Long-term zero-point drift	< 0.3 % LEL / month	OAW 24T	Combined Warning Horn/Flashlight with reset	
Long-term sensitivity drift	< 1 % LEL / month		button, 24Vdc 98dB	
Temperature range	-20 to +50 °C (-4 to 122 °F)	Warning Plate		
Humidity range	5 - 95 % r.H non-condensing	Gas Alarm	Flashing gas alarm plate "GASALARM" 24Vac/dc	
Pressure range	Atmospheric ± 20 %			
Sensor life time	> 36 months / normal ambient conditions			
Calibration interval ¹	6 months			
Storage temperature	+ 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. Products delivered by the AP meets and exceeds the requirements		
range				
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 element)			
¹ Manufacturer-recommended calibration interval for normal		of the new European standard EN50545		

¹ Manufacturer-recommended calibration interval for normal environmental conditions.

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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.

