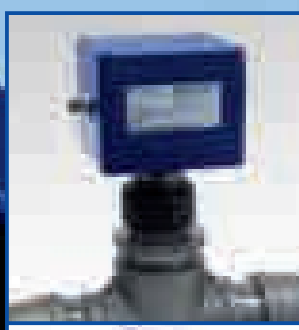
BCP-CH_4

CH_4 Sensor

The Methane Sensor

BCP-CH_4



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Advantages & Applications

Accurate monitoring of biogas plants

The robust BCP-CH_4 sensors are the ideal solution for the analysis of methane on the industrial scale.

Biogas plants can be ideally monitored with this reliable sensor. By its standardized connections, the sensor can be integrated in all standardized systems. In combined heat and power plants and biogas plants the current degree of efficiency can be analyzed at anytime and so the yield can be maximized.

The resistant and compact housing of the BCP-CH_4 series corresponds to protection class IP 65 and has already proven its worth under heavy duty. On demand the sensor can be equiped with an additional display, which continuously shows the real time measuring value. The investment costs can be amortized very quickly thanks to the attractive price and the low maintenance costs. The BCP-CH_4 sensor is easy to install and measures directly on the spot where the process takes place. And all this is offered with a very low level of maintenance.

BCP-CH_4 simplifies measurement – the cooling of the gas, complicated lines, valves or pumps are not needed. Thanks to the standard interfaces the data can be readout in real time by any electronic process control system. The BCP-CH_4 series is made for measuring on the large scale and is supplemented by the yieldmaster, a complete system for the laboratory.

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BCP-CH_4

Connections

for every application

Der BCP-CH_4 by BlueSens disposes of standard connection options. Thanks to its various fixing options the sensor can be integrated in almost every existing system. In general you have the choice to use flow adapters or to use existing clamped or screwed connections. The installation can take place by the following different connections:

Flow adapter POM for hose connections

Flow adapter stainless steel

> hose connection for hoses between 4 and 12 mm
> GL45 screw thread
> 1 ¼“ screw thread
> Tri-Clamp

For the use of flow adapters for hose connections you have the choice between the favourably priced and robust POM-adapters or the high-quality stainless steel adapters. For the analysis of biogases we recommend the use of stainless steel components.

Tri-Clamp SMS38

Screwed connection 1 ¼“

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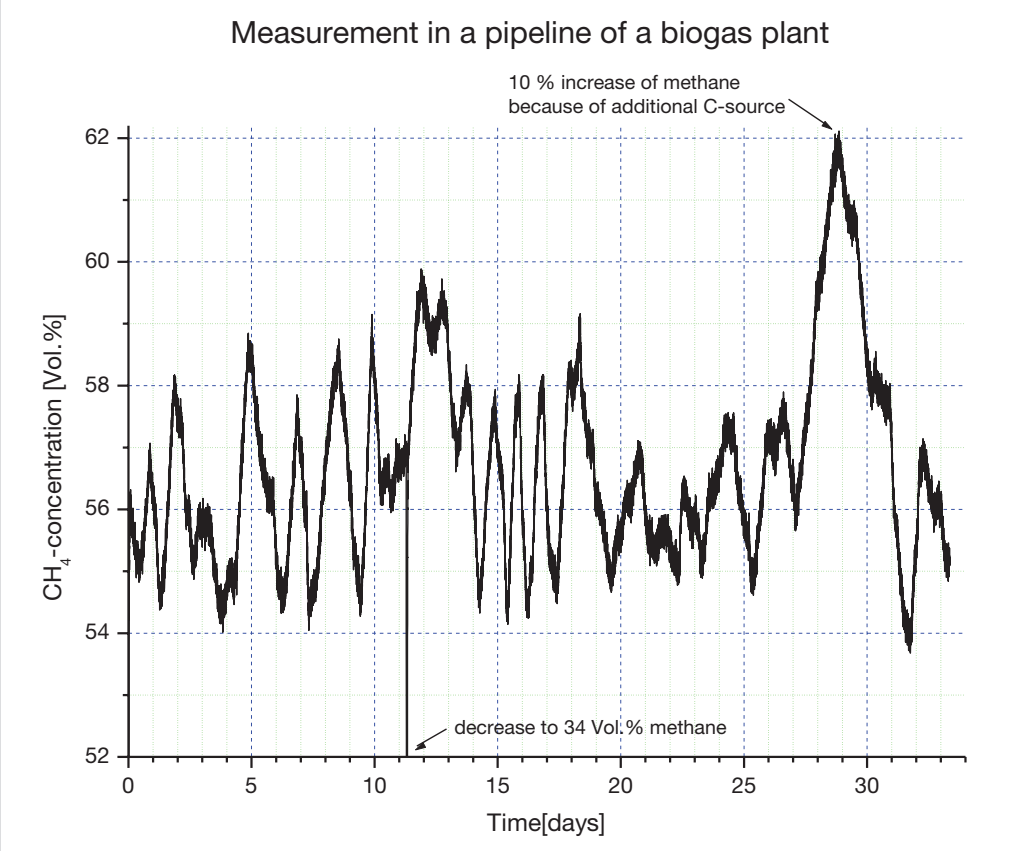
Process control

In search of the best yield

Bioprocessing means continuous control of the biological processes in real time – in combined heat and power plants, in biogas plants or in biotechnological fermenters. Biogas stands in strong competition with other energy sources. Especially for the industrial production of biogas, the maximum gas yeast is needed to work economically. To obtain more data means to have more optimization options. To better understand bioprocesses, you depend on a high measurement density and continuous measuring data.

Multiplexer BACCom 12

BCP-CH4 detects these data for you, which then can be processed by different control systems. The values can be transferred without any problem by standard data interfaces (RS232, RS485, 4-20 mA or Ethernet) to the bioprocessing systems. So BCP-CH4 can immediately be integrated in existing control systems. Using our Multiplexer BACCom, up to 12 sensors can be readout by a single interface. The more you learn about the process, the better you will be able to control and automate it to maximized yield.



Measurement in a biogas plant

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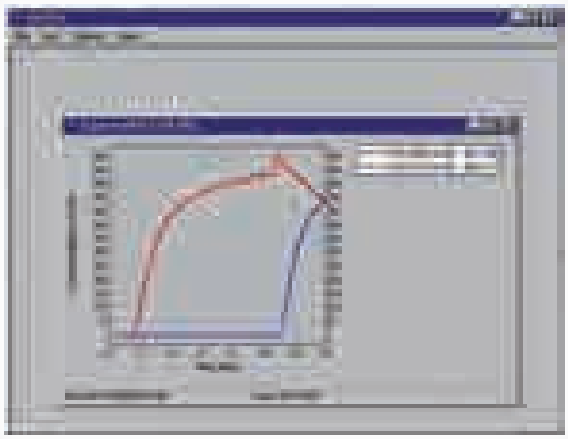
BCP-CH_4

Software

BacVis for a reliable data recording

BCP-CH4 can be used almost anywhere. Both screwed and clamped connections allow the integration in almost every biotechnical plant. You are also free in the software choice for the process control.

BacVis



The software BACVis was made for data recording of different sensors and gas flow meters (Milligascounter*). The sensors are recognized automatically by means of their identification number.

Due to the easy handling, BacVis is self-explanatory. As the obtained data are recorded in the ASCII-format, you can process them without any problems.

For sure you have also the option to use your own software for your process control. We are pleased to support you in finding the best solution for your plants.

* Registered trademark. The MilliGascounter was developed at the University of Applied Science Hamburg under the leadership of Prof. Dr. Paul Scherer.

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Data Sheet

BCP-CH_4

Sensor	BCP-CH_4	
Principle	Infrared, dual wavelength	
Measuring range	CH4 0...100 Vol.%	
Drift	< ± 2% reading/year	
Accuracy	< 0,2% FS** ± 3% reading	
Housing	Aluminum (IP65), PA	
Material	Steel 1.4571, Sapphire, Viton, PTFE	
Dimension / Weight	100x100x130 mm WxDxH/750g	
Connection	G 1¼" , GL 45, Tri-Clamp, hose connection 4-12 mm etc.	
Operating Temperature	-25 °C - +55 °C 15 °C - +40 °C 30 °C - +55 °C	-13°F - +131°F 59°F - +104°F 86°F - +131°F
Storage temperature	0 °C - +60 °C	32°F – 140°F
	< 75%RH non-condensing	
Operating humidity	0...100 Vol.% RH	
Pressure range	0,8 – 1,3 bar*	11.6 psi – 18.85 psi*
Pressure dependence	compensated max. ± 3% reading (range)	
Power supply	12 or 24 VDC, 1A	
Output	RS 232, RS 485, 4 - 20 mA, Ethernet	
CE	EN61326-1:1997 +A2:1998	

*others on request ** full scale

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Methane sensor BCP-CH_4 for in-situ measurement

Data Sheet

BCP-CH_4

Advantages

- robust and multi-functional
- compact
- measuring on the spot, where the process takes place (in-situ)
- no extra gas filter or cooler needed
- connectable to all standard fixing systems
- standardized data transfer
- real time process optimization
- on demand available with display

Application areas

- combined heat and power plants
- biogas plants
- large industrial plants

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