

# Data sheet

## CheckPoint

Hand-held gas analyser for spot testing  
- O<sub>2</sub>, O<sub>2</sub>/CO<sub>2</sub> or CO version with memory function



### Features

- Small compact hand-held gas analyser
- High measuring accuracy due to state-of-the-art technology
- Battery power for min. 2500 measurements for the O<sub>2</sub> and CO<sub>2</sub> version. Min. 400 measurements with the CO version
- Memory function
- Measures CO, O<sub>2</sub> or O<sub>2</sub>/CO<sub>2</sub> combined
- Short measuring time
- Ergonomic design
- Low sample gas volume
- Easy hot key calibration
- Robust and sturdy design
- Easy navigation in the user interface
- Rugged carrier case, free of charge
- Needle protection in the housing

### Introduction to the CheckPoint

CheckPoint is a hand-held gas analyser for the testing of MAP products within different industries e.g. the pharmaceutical, and the food & beverage industry. The analyser is small, robust, practical and ergonomically designed. CheckPoint is able to test oxygen, carbon dioxide and carbon monoxide using a syringe needle for gas sampling. The CheckPoint is ideal for machine and product setups.

CheckPoint is battery operated and can be powered by both rechargeable and ordinary batteries. The CO and O<sub>2</sub> versions are equipped with an electrochemical sensor and the O<sub>2</sub>/CO<sub>2</sub> version is equipped with an electrochemical and an infrared sensor. CheckPoint remembers up to 10 measurements. The large and easy readable LED based display gives you the result in a few seconds.

### CheckPoint is available in three versions:

- CheckPoint O<sub>2</sub> for oxygen only
- CheckPoint O<sub>2</sub>/CO<sub>2</sub> for combined measuring of oxygen & carbon dioxide
- CheckPoint CO for carbon monoxide only

### Calibrated and ready to use

CheckPoint comes with a certificate of calibration and is re-calibrated with six month interval. The operator never needs to worry about compensation for air pressure or flow verification because this is all taken care of automatically.

If you wish to re-calibrate the O<sub>2</sub> version yourself, this is a very simple process. You simply use the automatic hot key calibration routine available in the menu.

### Fast, sensitive and accurate

This product is especially designed for those who need the advantages of a very portable unit, which can offer a good accuracy. Especially the accuracy of the CO<sub>2</sub> sensor in hand-held devices is one of the best on the market. Due to new state-of-the-art technology, PBI-Dansensor can now offer a very satisfactory solution to this point.

### Carrier case included

The new rugged carrier case protects the CheckPoint gas analyser during transport and when not in use. Accessories can be stored in the carrier case as well.



Carrier case:  
Free of charge

 **PBI Dansensor**

Best choice for gas and permeability instrumentation

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## Principle of operation

### Oxygen and carbon monoxide

The CheckPoint O<sub>2</sub> and CO versions are based on an electrochemical sensor. The sensor operates like a kind of battery producing a current corresponding to the concentration of the gas passing the sensor. The value of the current is converted into a concentration value and shown in the display. The sensor is remarkably sturdy and stable, the readings are highly repeatable and the sensor is very fast. The sensor will not saturate in high oxygen concentrations, which means that the CheckPoint O<sub>2</sub> can be used across a broad range of applications with a measuring range from 0-100% with a high resolution - still with high speed and accuracy. The measuring range for the CO version is 0-0.8%.

### Carbon dioxide

The CO<sub>2</sub> sensor is a self-contained, non-dispersive IR sensor with IR source and single wavelength filter. There are no moving parts and the sensor is very sturdy. The CO<sub>2</sub> sensor range is 0-100%. The sensor only needs calibration every 6 months and the reading is not influenced by humidity, ambient air pressure or temperature.

## Common specifications

General	
Auto power off after 1 minute	
Memory function for 10 measurements (also after battery replacement)	
Display hold function (also after power off)	
Charging time for NiMH-batteries: 3 hours (auto off)	
Cabinet	
Dimensions:	74 x 63 x 135 mm (HxWxD)
Weight:	0.5 kg
Cabinet:	IP53 & anodized aluminium
Others	
Power supply: (recharge only)	90-260 VAC, 50-60 Hz, max. 12 W Max. 70 VA nom. 45VA
Options:	External power supply Rechargeable NiMH battery pack Arm wrist holder
User interface	
Display:	3 digit LED for each gas 3 function buttons: on/off, start measuring and memory Adjustable for right or left hand users

PBI-CO2-Dan-sensor-QP-UJK-1

## Sensor system

O <sub>2</sub> version	
Sensor type:	Electrochemical
Range:	0 - 100%
Accuracy:	2% relative in the range of 10% -100%, 0.2% absolute in the range 0 - 10%
Sample volume:	<15 ml
Lifetime:	> 2 years
CO <sub>2</sub> version	
Sensor type:	Infrared, temperature compensated
Range:	0 - 100%
Accuracy:	3% absolute in the range of 20% - 100%, 2% absolute in the range of 0 - 20%
Sample volume:	<15 ml
Lifetime:	>2 years
CO version	
Sensor type:	Electrochemical
Range:	0 - 0.8%
Accuracy:	+/- 5% relative. Min. +/- 100 ppm
Sample volume:	>30 ml
Lifetime:	>2 years
Resolution:	
Sensors:	0.01-0.1%
Measuring system - common for O <sub>2</sub> and CO <sub>2</sub>	
Measuring time:	10 sec. (user extendable/shortend)
Pump:	Built-in pump, max -200 mbar vacuum, expected lifetime > 500 hours (180,000 measurements)
Calibration:	Air, 0%/ 100% CO <sub>2</sub> gas
Measuring system for CO version	
Measuring time:	55 sec. (user extendable/shortend)
Pump:	Built-in pump max -200 mbar vacuum, expected lifetime >500 hours (30,000 measurements)
Calibration:	One known gas plus zero off set

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