





ECHO INSTRUMENTS

PRODUCT CATALOG - PHARMA

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# AUTOMATIC OXYGEN ANALYZERS FOR BLISTERS & VIALS

## AUTOMATIC O2 ANALYZERS B-02 & V-02

FOR MAP PACKAGING IN PHARMACEUTICAL AND FOOD & BEVERAGE INDUSTRY

B-O2 & V-O2 are automatic devices for measuring O2 concentration in MAP packaging for pharmacy and food & beverage industry. B-O2 was primarily designed to measure  $O_2$  in blisters. V-O2 was designed to measure  $O_2$  in vials and  $O_2$  in coffee capsules. Devices are compliant with pharmaceutical standards, 21 CFR Part 11 and Industry 4.0.

## **Applications**

#### **Applications B-02**

 Pharmaceutical: O2 concentration in blisters. Measuring 1-6 blisters at once, with up to 72 measuring points in one serial measurement.



Cartridge for 1-6 blisters

#### **Applications V-02**

- Pharmaceutical: O2 concentration in vials. Measuring 54-94 vials in one serial measurement.
- Food & Beverage: O2 concentration in coffee capsules;



Cartridges for 18-42 coffee capsules



Cartridges for 54-94 vials







## **Principles**

Optical sensors with optical transmitter installed combined with intelligent software instantly measure the O<sub>2</sub> concentration in very small headspaces.

Devices provide reliable, accurate and reproducible analysis that eliminates possibility of human errors. The measuring procedure is simple, fast and efficient. The user interface is designed for easy operation. The operator selects the required type of analysis, i.e. single point analysis or serial measurements. A statistical analysis report is automatically generated by the software. The special designed cartridges enable fast and precise measurements of different types of blisters, vials or coffee capsules.

## Advantages

- Measurements in headspace;
- No sample extraction;
- High accuracy and precision;
- No O<sub>2</sub> consumption during measurements;
- IQ & OQ documentation;
- Automatic calibration;
- Needles with Ø: 0,4 mm / 0,8mm;
- Measuring range: 0-25% / 0-100%.

## Technical specifications

- Measuring range: 0-25% O<sub>2</sub>;
- Accuracy: +/- 0,1 % O<sub>2</sub>;
- Limit of detection: 0,1% O<sub>2</sub>;
- Operating temperature range: 5-40 °C;
- High precision positioning: < 0,02 mm;
- Interface: USB, RS485, Ethernet.

### ECHO Instruments B-O2 & V-O2 software





