



Product Data Sheet

Electronic Gas Dosing System for the Kesternich Test – EKES (EN ISO 6988)



Order Information

Examples of Chamber with EKES:

CON 300-FL AIR CWC AWRP EKES
Article number: V.702.561.521

CON 400-FL AIR CWC AWRP EKES
Article number: V.701.561.521

CON 1000-FL AIR CWC AWRP EKES
Article number: V.705.561.521

CON 3000-FL AIR CWC AWRP EKES
Article number: V.708.561.521

CON 3500-FL AIR CWC AWRP EKES
Article number: V.709.561.521

CCT 400-FL VDA-I EKES
Article number: V.731.362.121 +
accessory V.851.110.084

CCT 1000-FL-I EKES
Article number: V.735.362.121 +
accessory V.851.110.084

CCT 3000-FL-I EKES
Article number: V.738.362.121 +
accessory V.851.110.084

CCT 3500-FL-I EKES
Article number: V.739.362.121 +
accessory V.851.110.084

These are only a few examples of test chambers being fitted with EKES. Many more combinations are possible.

Sales & Support:

+49 5205 87963 0

Monday to Friday
8:00 am – 17:00 pm

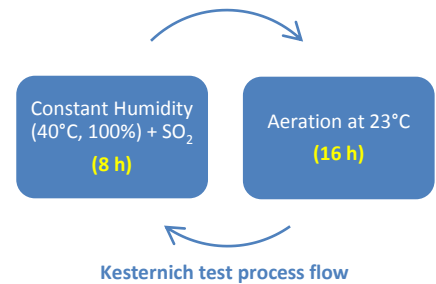
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Specification subject to changes
Pictures might differ from original

Applicable Test Standards

- ✚ EN ISO 6988
- ✚ DIN 50018
- ✚ ASTM G 85



Product Description

The electronic gas dosing system for the Kesternich test (EKES) in SO₂ environment can be fitted to virtually any VLM test chamber (except for the SAL range) and regardless of the controller used. However for the cost-effective reasons only the test chambers belonging to the VLM mid-range (CON, CON-SAL and CCT) featuring Jumo dTRON and Jumo Imago controller will be equipped with this option. This flexibility is possible due to the fact that the EKES gas dosing system operates independently from the process controller built into the basic test chamber.

The operation of EKES gas dosing unit is simple. At the beginning of the Condensation test the control button is pressed on the control display of the EKES gas dosing unit which releases the predefined volume of SO₂ into the test chamber.

Customer Benefits

- ✚ High flexibility in choosing the basic type of the test chamber – the EKES system operates in combination with (almost) all chamber types and all process controllers
- ✚ User friendly operation
- ✚ Highly sensitive electronic mass flow meter allows accurate gas dosing
- ✚ Modular design of VLM test chambers allows easy adding of the EKES option long after the chamber has been commissioned
- ✚ The complete system is designed according to the highest safety standards; the EKES system with SO₂ bottles is enclosed in a separate casket which is continuously ventilated



Casket with the SO₂ bottle and the electronic mass flow meter



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JUMO Imago 500



JUMO controller



CON 300-FL with electronic dosing system for SO₂

Safety

SO₂ is a poisonous gas and for this reason was the safety of the operating personnel one of the main EKES design parameters. For this reason this system meets the highest safety standards. Some of the features are:

- ✚ The SO₂ bottles are kept in a permanently ventilated casket inside the bench underneath the test cabinet
- ✚ The casket is made of a special, fire-resistant material specially designed for this purpose

Process Control

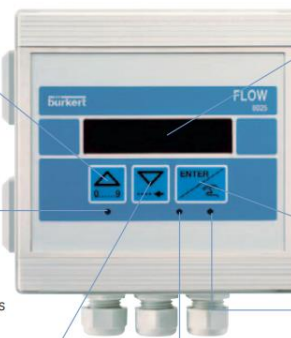
- ✚ The standard Kesternich test consists of two phases within one day cycle from which one features the introduction of the gas (SO₂). The volume of the gas per cycle (in litres) is controlled by the control unit with a handy digital display.
- ✚ The standard gas dosing volume for Kesternich test is 2 L per test cycle (one test cycle takes typically 24 h).

Notes:

- Scrolling up the parameters within a level or a menu
- increase the figure selected

Device status LED: see following table

- Scrolling down the parameters within a level or a menu
- Selecting the figure on the left
- Reading the messages in the information menu



EKES Control unit with digital display

Large digital display with 8 characters (4 digital characters and 4 alphanumeric characters) indicating:

- the measured flow
- the value of the current output
- the value of the main totalizer
- the value of the daily totalizer

- Selecting the displayed parameters
- Validating the settings

Status LED of relay DO3 (LED ON = contact closed)

Status LED of relay DO2 (LED ON = contact closed)