

MK-30P Measuring Chamber



The MK-30P measuring chamber is a sophisticated device which is mainly intended for high-precision and reliable laboratory measurements of sample activity. The device is used in nuclear power plants, radiochemical plants, research institutes, and elsewhere.

Purpose

The MK-30P measuring chamber with lead shield thickness of 30 mm is designed for measuring activity with high precision and reliability. The device is used in nuclear power plants, radiochemical plants, research institutes, and elsewhere. It is designed for activity measurements of smear tests, evaporated samples and air filters.

An alpha/beta detector is used as standard.

Description

The MK-30P is connected to a PC or notebook by communication cable via Ethernet interface. The device works on the principle of measuring activity within a shielded measuring chamber. The sample for measurement is placed into a measuring dish 50 mm in diameter. The dish is inserted into the sliding support, which then transports the sample for measurement to a precise geometric position below the detector. The measuring chamber is closed simultaneously with the shield. Visualization software displays the results on the monitor of a connected PC or notebook.

In the basic configuration, a proportional detector is located in the centre of the shield. A board with preamplifier and HV/signal separation filter is located directly above the detector. HV is supplied from a power source controlled via the processor. Pulses from the preamplifier are processed in two comparators which can be set via the processor.

The LED indication panel indicates the MK-30P's individual statuses.

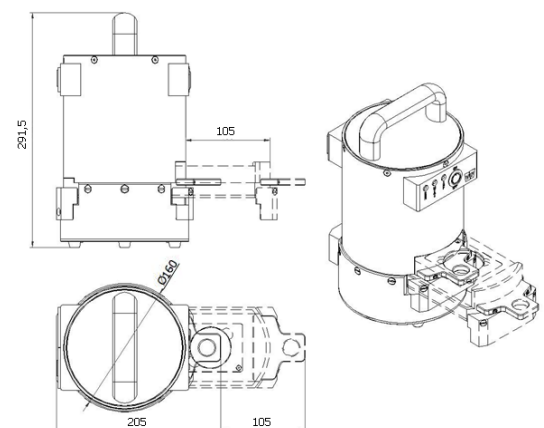
The measuring chamber communicates with the environment via Ethernet. CAN2B, RS485 and RS232 interfaces can be supplied as optional accessories.

Main advantages

- Measurement of various samples
- Multi-purpose applications
- Easy decontamination
- User-friendly graphical interface with intuitive control via PC/notebook

Standards used

The shielded MK-30P measuring chamber complies with international EMC standards and customary electrical protection (IP) requirements.



Characteristic data

Basic parameters:

- Power 24V DC; 0.5A
- Operating temperature range 5 ~ 40°C
(41 ~ 104°F)
- Storage temperature 0 ~ 50°C
(32 ~ 122°F)
- Operating relative humidity Max 80%, non-condensing
- Operating pressure 86 ~ 106 kPa
- Dimensions (closed drawer) 205 x 292 x 160 mm
(8.1 x 11.5 x 6.3 in)
- Dimensions (open drawer) 310 x 292 x 160 mm
(12.2 x 11.5 x 6.3 in)
- Weight 23 kg (50.6 lb)

Sample parameters:

- Measuring dish diameter Max 50 mm (1.97 in)
- Measuring dish height Max 5 mm (0.2 in)

Indication and control:

- Control SAS visualization SW from PC
- ON/OFF On front panel
- LED RUN Flashing – processor is running
- LED MEAS On – measuring is ongoing
- LED IMP Flash – pulse recorded

Communication interface:

- Ethernet (RJ45) 1x

Radiometric parameters of standard alpha/beta detector:

- Beta energy range 60keV ~ 2 MeV
- Alpha energy range > 3 MeV
- Measuring range 1 ~ 30 kBq (27 ~ 810nCi) ⁹⁰Sr
- Beta MDA 1 Bq (0.027nCi) ⁹⁰Sr
- Alpha MDA 0.1 Bq (0.027nCi) ²⁴¹Am
- Detector used Proportional – effective diameter of 44.5 mm (1.75 in)

Device description:

- 1 Connector
- 2 Indication unit
- 3 Electronics
- 4 Lead shield
- 5 Detection unit
- 6 Ejection mechanism
- 7 Measuring area
- 8 Stand



MK-30P / indication and control elements



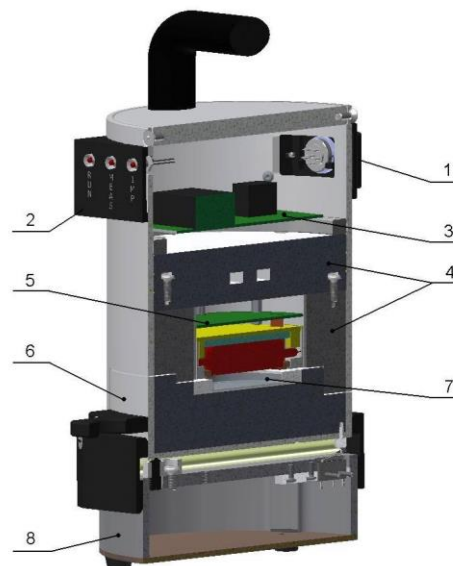
MK-30P / rear panel with connectors



Ordering data

When ordering, always please specify the device type and its accessories.

Type	Description
K1039	Basic configuration with alpha/beta detector
	Accessory – SAS visualization software for PC



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Your supplier