

Gas chromatograph

# *Nexis* GC-2030



## New generation gas chromatograph

### High sensitivity of detectors

The new series of detectors enables the highest\* levels of sensitivity to be achieved and enables research into a wide range of analytical tasks.

### Exceptional performance and efficiency

- Advanced gas control technology flow control (AFT) provides the ability to back flush the analytical column, switch the gas flow between detectors, split the flow into two or three detectors, switch the flow between two columns ("heartcut")
- Electronic flow controllers allow you to receive unrivaled reproducibility of analysis results
- Possibility of safe use of hydrogen as a The use of carrier gas allows us to do away with expensive helium and also double the speed of analysis
- Simultaneous installation of up to three analytical lines
- Carrier gas saving and sleep functions The mode significantly reduces gas consumption and operating costs of the device

### Maximum ease of use

- Possibility of control and monitoring from color touch screen on the front panel of the device
- Intuitive software with an updated graphical interface
- Remote control of gas chromatograph from a tablet or smartphone
- ClickTek technology allows you to quickly and without the use of special tools replace capillary columns and service the injector port, which ensures reliable connections and the absence of possible leaks.

\*As of May 2017, according to Shimadzu Corporation



ClickTek Tool-less Speaker Installation Technology

## Technical specifications

### Column thermostat

- operating temperature range: from (room +2 °C) to 450 °C  
(using liquid CO<sub>2</sub> (optional) from -50 °C to 450 °C)
- temperature program: up to 32 steps (controlled cooling possible)
- Cooling from 450°C to 50°C in 3.4 minutes max. (cooling speed can be selected, which will reduce the likelihood of column stationary phase damage and increase its lifespan)
- software-defined heating rate: from -250 °C/min to +250 °C/min
- thermostat volume 13.7 l

### Detectors

Up to 4 detectors can be installed simultaneously, with individual temperature control for each and full electronic control of gas flows. (The number of detectors that can be installed simultaneously depends on their type).

- **Flame Ionization Detector (FID):**  
temperature range: up to 450 °C  
dynamic range: 10<sup>7</sup>  
detection limit: 1.2 pg C/s (dodecane) data  
acquisition frequency: 500 Hz
- **Electron Capture Detector (ECD): temperature**  
range: up to 400 °C  
dynamic range: 10<sup>5</sup> (γ-HCH)  
detection limit: 4.0 fg/s (γ-HCH) data  
acquisition frequency: 500 Hz
- **Barrier discharge ionization detector (BID):**  
universal detector that allows you to detect almost all  
compounds (except He and Ne)  
at the trace level:  
temperature range: up to 350 °C dynamic  
range: 10<sup>5</sup>  
detection limit: 0.8 pg C/s (dodecane) data  
acquisition frequency: 500 Hz
- **Chemiluminescent detector SCD-2030 (CLD):**  
dynamic range: 10<sup>4</sup>  
detection limit: 0.3 pg S/s (dodecanethiol)  
data acquisition frequency: 500 Hz
- **Flame photometric detector (FPD):**  
temperature range: up to 450 °C dynamic  
range: P - 10<sup>4</sup>, S - 10<sup>3</sup>  
detection limit:  
P - 45.0 fg P/s (tributyl phosphate)  
S - 2.0 pg S/s (dodecanethiol)  
data acquisition frequency: 500 Hz
- **Flame Thermionic Detector (FID):**  
temperature range: up to 450 °C  
dynamic range: 10<sup>3</sup> for N, P  
detection limit:  
N - 0.1 pg N/s (azobenzene)  
P - 0.01 pg P/s (malathion)  
data collection frequency: 500 Hz
- **Thermal conductivity detector (TCD):**  
temperature range: up to 400 °C  
dynamic range: 10<sup>5</sup>  
sensitivity: 20000 mV ml/mg (decane)  
data acquisition frequency: 500 Hz

New

### Injectors

Up to 3 injectors can be installed simultaneously with independent temperature control for each.

- Split/splitless SPL sample injector
- Injector for wide capillary columns WBI
- Direct sample injection into the OCI column
- Programmable temperature injector PTV

### Gas flow control

Carrier gas control modes: constant linear velocity, constant pressure, constant flow, as well as multi-stage programs for each mode.

- Carrier gas pressure range at the column inlet: from 0 to 1035 kPa
- Number of programming stages: 7
- Carrier gas flow rate through the injector: 0-1300 ml/min
- Flow division factor: 0-9999.9

### Software

- LabSolutions GC version 5.9 and higher or LabSolutions DB/CS version 6.8 and higher

*Dimensions and weight:* 515 \* 440 \* 530 mm; about 43.5 kg (depending on the configuration).



WWW.SHIMADZU.COM • WWW.SHIMADZU.EU • WWW.SHIMADZU.COM.UA

«ShimUkraine» LLC - General distributor of analytical equipment  
SHIMADZU in Ukraine and the Republic of Moldova

**Address:** Dmytra Doroshenko street, 18, office 429, Kyiv, 01042, Ukraine

**Phone/fax:** (044) 284-24-85; 284-54-97; 390-00-23

**E-mail:** shimukraine@gmail.com

**Internet:** www.shimadzu.com.ua

www.shimadzu.eu

www.shimadzu.com