CHROMATEC

Technical Data Sheet

Chromatec
Hydrogen Generators

Chromatec Hydrogen generators intentionally designed for gas chromatography applications.

Laboratory hydrogen generators produce high purity hydrogen using just a bidistilled water and electricity. This type of hydrogen generators involves technology of Polymer Electrolyte Membrane (PEM) electrolysis, which became the most popular in laboratory hydrogen generators thanks to safety, ease of use and reliability.

Chromatec Hydrogen generators line of models varies in productivity and hydrogen purity grade. All models are suitable to deliver hydrogen to flame detectors, high purity models (HPM) are recommended to use hydrogen as a carrier gas, and Chromatec Ultra model recommended as a carrier gas also for MSD applications. Chromatec Hydrogen generators design is a combination of simplicity and utility, everything what you need to produce hydrogen for flame detectors or as a carrier gas in GC, nothing superfluous.

Chromatec Ultra model provides the best hydrogen purity grade with minimized downtime for maintenance thanks to automatic regeneration of mol.sieve traps.

Key features:

- The most common PEM technology
- Easy to install and to use
- Catalytic oxygen removal system incorporated in HPM models reduces O2 content down to 2 ppm.
- For Chromatec Ultra model, extra *PSA trap unit* provides up to 99.9995% hydrogen purity with less than 1 ppm oxygen, as well as takes no time for maintenance thanks to automatic regeneration of traps.
- Water refilling without turning off.
- Auto-loading water for Chromatec Ultra model
- Cost-saving solutions

Application range:

- Fuel gas for gas chromatography detectors: FID, NPD, FPD/PFPD, CCD, SCD
- Carrier gas for gas chromatography
- Fuel gas for gas analyzers based on FID, SCD detectors
- Suitable for GC-MS: HPM model with additional purifiers, Ultra model doesn't require purifiers for MSD apps.

Technical Specification:

Model	Flow Rate		Max Delivery pressure		Purity*	Water consumption**, hours	Power consumption, W
	L/h	ml/min	kPa	psi			
6.140	6	100	140	20	99.995 %	167	140
6.400	6	100	400	58	99.995 %	167	140
10.140	10	167	140	20	99.995 %	100	140
10.400	10	167	400	58	99.995 %	100	140
10.400 HPM	10	167	400	58	99.9995 %	100	300
16.600	16	267	600	87	99.995 %	62	300
16.600 HPM	16	267	600	87	99.999 %	62	400
25.600	25	417	600	87	99.995 %	40	300
25.600 HPM	25	417	600	87	99.999 %	40	400
Chromatec Ultra	16	267	405	58	99.9995 %	72***	500

* - refers to total impurities content at dry gas. Water Vapor < 5 PPM (-65 °C Dewpoint)

** - at full filling 0.8L reservoir.

*** - water auto loading available

Environmental Conditions:

Ambient Operating Temperature:	from 10 to 35°C
Relative humidity:	not more than 80 %
Storage Temperature:	from -50 °C to 50°C
Power Requirements:	~220V ±10%, 50±1Hz (standard euro plug SCZ-1)
Power consumption:	See table above

Other specification:

Dimensions: (WxDxH);	230 mm x 580 mm x 440 mm
Weight:	20 kg
Feed Water requirement	Deionized water, 6 MOhm
Output fittings	1/8"
Dimensions and weight of PSA trap unit (for Ultra model only)	175 mm x 300 mm x 350 mm, 10 kg

Consumables:

Replaceable traps kit for Hydrogen generators (6, 10 L/h), P/N 560-1010

Replaceable traps kit for Hydrogen generators (16, 25 L/h), P/N 560-1011

Ionite filter, P/N 560-1004

Related products:

Water Purification system, P/N 451-0701

Hydrogen leak detector, P/N 150-6141

Safety and Certification:

Products designed and manufactured under regulations of GOST R ISO 9001 quality standard.

At electromagnetic compatibility hydrogen generators meets the requirements of IEC 61010-1, CE-certified as a part of chromatograph "Chromatec-Crystal 9000"

Hydrogen generators certified as a part of bundle system on the basis of Chromatograph "Chromatec-Crystal 5000" according to TS 9443-004-12908609-99.

Information and technical specification in this publication are subject to change without notice.

For more information please contact us at:
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