

HiQ® specialty gas generators.

The hydrogen no-maintenance series.

Hydrogen is used in chromatography both as a carrier gas and as a fuel for instance for flame ionization detectors (FID) or flame photometric detectors (FPD). It is either delivered in classical gas cylinders or produced on site. On-site production ensures a continuous supply and allows for small total hydrogen volumes in the lab (<40 ml contained volume/unit). There are three models of the HiQ® no-maintenance generator. Apart from the basic model there is one with remote control (NMH2 XXX-RC) and one with cascading flow (NMH2 XXX-CF) allowing from two to a maximum of 32 units to be connected in parallel.

The HiQ® hydrogen generator is a no-maintenance device with innovative membrane-technology. Its advanced dual-column drying system automatically removes residual moisture from the hydrogen produced. The column materials are also regenerated automatically, and in the final purification not even a desiccant cartridge is needed. For the electrolytic dissociation process, the HiQ® hydrogen generator requires no caustic chemical solutions. Instead, it uses harmless deionized water to produce a reliable, continuous output of 6.0 hydrogen (>99.9999% pure). System operating status and diagnostic data appear on a user-friendly digital display. In case of an internal error, the unit is put on standby by an auto-shut-off procedure. Selectable, multiple alarms alert to unwanted shifts in operating conditions such as low water level, poor water quality, low pressure (leak) and power supply conditions.

Hydrogen flow and water quality are monitored by continuous LCD indication. The gas delivery pressure is indicated by LCD and can be adjusted manually via a membrane control pad. A cable interface permits remote computer monitoring of all functions.

Model	Description	HiQ® code
NMH2 100	100 ml/min	5500
NMH2 160	160 ml/min	5501
NMH2 250	250 ml/min	5502
NMH2 300	300 ml/min	5995
NMH2 500	500 ml/min	5503
NMH2 600	600 ml/min	5996
NMH2 1L	1,000 ml/min	5989
NMH2 100-RC	100 ml/min	5504
NMH2 160-RC	160 ml/min	5505
NMH2 250-RC	250 ml/min	5506
NMH2 300-RC	300 ml/min	5997
NMH2 500-RC	500 ml/min	5507
NMH2 600-RC	600 ml/min	5998
NMH2 1L-RC	1,000 ml/min	5990
NMH2 250-CF	250 ml/min	5508
NMH2 300-CF	300 ml/min	5999
NMH2 500-CF	500 ml/min	5509
NMH2 600-CF	600 ml/min	6000
NMH2 1L-CF	1,000 ml/min	5991

Optional features

NMH2-PCI-CC	With PC interface and control cable	5510
NMH2-EXT-RC	With handheld external remote control unit	5511
NMH2-H ₂ O-RF	With automatic water refilling option	5512

Technical data

Max H ₂ flow rate	0.10 – 1.0 l/min
Delivery pressure	0.1–10.5 bar 1–155 psi
H ₂ purity	>99.9999% (>6.0)
Electrolysis cell	Solid polymer membrane
Safety	Auto shut-off and low internal volume (< 40 ml)
Auto-drying system	No maintenance of drying cartridges (exclusive system)
Water	Deionized or distilled
User interface	Set points, system status, user parameter
Display	LCD display 128 x 64 pixels, set points, status, alarms

Options

I/O board containing:	<ul style="list-style-type: none"> • RS232C bi-directional/2 ports RS485 • Cascading up to 32 units • Potential free relay contacts
Software for PC-control capability (requires I/O board)	
Dimensions (W/D/H)	23/35/43 cm 8 ⁵ / ₁₆ "/13 ³ / ₁₆ "/15 ³ / ₁₆ "

Weights

NMH2 100 – 300	17 kg	37.5 lbs
NMH2 500 – 1L	18 kg	40 lbs

Certification:



Consumables/spare parts

NMH2-DI-Bag	Deionizer bag, replacement	5513
NMH2-RCC-10	Remote control cable (15-conductors) 10 m	5514
NMH2-RCC-10	Remote control cable (15-conductors) 25m	5515
NMH2-RCC-10	Remote control cable (15-conductors) 50 m	5516



HiQ® hydrogen no-maintenance generator.

HiQ® hydrogen no-maintenance generator in principal.

