

ZEFIRO ZERO HP

Feb. 2018

CINEL® s.r.l.
Gas Generators Technology



DESIGN AND PRODUCTION
OF LABORATORY
GAS GENERATORS

Application

Carrier gas for GC
ICP

Technical data

	ZEFIRO ZERO 1 HP	ZEFIRO ZERO 5 HP
FLOW RATE	1 l/min	5 l/min
PURITY	99,999% @ 6 bar	99,999% @ 6 bar
AIR INLET PRESSURE REQUIRED	> 7 bar	> 7 bar
NO INTERNAL COMPRESSOR	Need to be connected to an existing clean and dry compressed air network	Need to be connected to an existing clean and dry compressed air network
EASY AND QUICK MAINTENANCE	Only change filter element once per year	Only change filter element once per year
NOISE	Absent. No moving mechanical parts on the generator	Absent. No moving mechanical parts on the generator
POWER	Not required	Not required
CONNECTIONS	G 1/4	G 1/4
WEIGHT	40 kg	45 kg
DIMENSIONS	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)



“Design and production
of laboratory
gas generators”



ZEFIRO ZERO series

NITROGEN GENERATORS
WITHOUT INTEGRATED COMPRESSOR



The constant supply
of nitrogen from an existing air source





ZEFIRO zero LC-MS



Description

The nitrogen generator ZEFIRO ZERO uses membranes technology. The system produces laboratory pure nitrogen from an existing in house oil free compressed air supply. Compressed air is forced to pass through a hollow fibers membrane, with selective permeation of the different components, nitrogen, oxygen, CO₂, water vapor and traces of rare gases (Ar, Co), depending on the rate of diffusion.

Application

LC/MS and LC/MS
that need Nitrogen & Air

Technical data

ZEFIRO ZERO LC/MS

ZEFIRO ZERO LC/MS COMBINED

FLOW RATE	20, 25, 40, 60, 80, 120 l/min	N ₂ : up to 60 l/min AIR: up to 70 l/min
PURITY	up to 99,0% @ 7 bar	up to 99,0% @ 7 bar
AIR INLET PRESSURE RECOMMENDED	8 bar	8 bar
NO INTERNAL COMPRESSOR	Need to be connected to an existing clean and dry compressed air network	Need to be connected to an existing clean and dry compressed air network
EASY AND QUICK MAINTENANCE	Only change filter element once per year	Only change filter element once per year and dryer every two years
NOISE	Absent. No moving mechanical parts on the generator	Absent. No moving mechanical parts on the generator
POWER	Not required	Not required
CONNECTIONS	G 1/4	G 1/4
WEIGHT	35-45 kg	40-45 kg
DIMENSIONS	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)

ZEFIRO zero DUAL-PURITY



The rate of diffusion of nitrogen through the membrane is slower than the other components, which thus flow outside of the fiber membrane, leaving nitrogen inside only. The model combined uses in addition a dryer membrane which guarantees the high drying degrees level to the output air flow.

Application

LC/MS
with collision cell

Technical data

ZEFIRO ZERO DUAL-PURITY

ZEFIRO ZERO DUAL-PURITY S

FLOW RATE	40, 60 l/min LC/MS 0,2 l/min Collision Cell	40, 60 l/min LC/MS 1,1 l/min Collision Cell
PURITY	99,0% @ 7 bar LC/MS 99,999% @ 2,5 bar Collision Cell	99,0% @ 7,2 bar LC/MS 99,999% @ 6,5 bar Collision Cell
AIR INLET PRESSURE RECOMMENDED	8 bar	8 bar
NO INTERNAL COMPRESSOR	Need to be connected to an existing clean and dry compressed air network	Need to be connected to an existing clean and dry compressed air network
EASY AND QUICK MAINTENANCE	Only change filter element once per year	Only change filter element once per year
NOISE	Absent. No moving mechanical parts on the generator	Absent. No moving mechanical parts on the generator
POWER	Not required	Not required
CONNECTIONS	G 1/4	G 1/4
WEIGHT	40-45 kg	40-45 kg
DIMENSIONS	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)



FLOW RATE

PURITY

AIR INLET PRESSURE RECOMMENDED

NO INTERNAL COMPRESSOR

EASY AND QUICK MAINTENANCE

NOISE

POWER

CONNECTIONS

WEIGHT

DIMENSIONS