### **ZEFIRO ZERO** HP

Application

Carrier gas for GC ICP

Gas Generators Technology

**DESIGN AND PRODUCTION** OF LABORATORY GAS GENERATORS



#### **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	
WEIGTH	40 kg	45 kg	
DIMENSIONS	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)	

"Design and production of laboratory gas generators"

AIR N<sub>2</sub>  $H_{2}$ 

## **ZEFIRO ZERO**

NITROGEN GENERATORS WITHOUT INTEGRATED COMPRESSOR

ZEFIRO ZERO LC-MS

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# ZEFIRO zero DUAL-PURITY

#### **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.

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 additional a dryer membrane which guarantees the high drying degrees level to the output air flow.

#### **Application**

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

#### **Technical data**

#### **Application**

LC/MS with collision cell

#### **Technical data**

FLOW RATE20, 25, 40, 60, 80, 120 /minMX: up to 90/Min AH: up to 70 /min40, 60 //min LO/MS 0.2 /min Collision Cell40, 60 //min LO/MS 0.1 /min Collision Cell40, 60 //min LO/MS 1.1 //min Coll40, 60 //min LO/MS 1.1 /min Coll<	ZEFIRO ZERO LC/MS		ZEFIRO ZERO LC/MS COMBINED	ZEFIRO ZERO DUAL-PURITY	ZEFIRO DUAL-PU
PURITYUp to 99,0% 07 barUp to 99,0% 07 barSear <t< td=""><td>FLOW RATE</td><td>20, 25, 40, 60, 80, 120 l/min</td><td>N2: up to 60 l/min AIR: uo to 70 l/min</td><td>40, 60 l/min LC/MS 0,2 l/min Collision Cell</td><td>40, 60 I/min 1,1 I/min Coll</td></t<>	FLOW RATE	20, 25, 40, 60, 80, 120 l/min	N2: up to 60 l/min AIR: uo to 70 l/min	40, 60 l/min LC/MS 0,2 l/min Collision Cell	40, 60 I/min 1,1 I/min Coll
AR INLET PRESSURE RECOMMENDED 8 bar 8 bar 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 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 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 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 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 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 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 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 Need to be connected to an existing clean and dry compressed air network Need to be connected to an existing clean and hour other pressed No moving mechanical parts on the generator No moving mechanical parts on the generator No moving mechanical dry compressed No moving mechanical parts No moving mechaniclean dry compressed air network No movi	PURITY	up to 99,0% @ 7 bar	up to 99,0% @ 7 bar	99,0% @ 7 bar LC/MS 99,999% @ 2,5 bar Collision Cell	99,0% @ 7,2 b 99,999% @ 6,5 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 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 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 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 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 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 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 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 Need to be connected to an existing clean and dry compressed air network   NO INSTERNAL COMPRES Absent. No moving mechanical parts on the generator	AIR INLET PRESSURE RECOMMENDED	8 bar	8 bar	8 bar	8 ba
EASY AND QUICK MAINTENANCE Only change filter element once per year	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	Need to be connected to an existing clean and dry compressed air network	Need to be connected to dry compressed
NOISEAbsent. No moving mechanical parts on the generatorAbsent. No moving mechanical parts on the generatorWeighten State	EASY AND QUICK MAINTENANCE	Only change filter element once per year	Only change filter element once per year and dryer every two years	Only change filter element once per year	Only change filter elen
POWERNot requiredNot requiredNot requiredNot requiredNot requiredCONNECTIONSG 1/4G 1/4G 1/4G 1/4WEIGTH35-45 kg40-45 kg40-45 kg40-45 kgDIMENSIONS40x40x95 cm (WxDxH)40x40x95 cm (WxDxH)40x40x95 cm (WxDxH)	NOISE	Absent. No moving mechanical parts on the generator	Absent. No moving mechanical parts on the generator	Absent. No moving mechanical parts on the generator	Abser No moving mechanical p
CONNECTIONS $G1/4$ $G1/4$ $G1/4$ $G1/4$ WEIGTH $35-45 kg$ $40-45 kg$ $40-45 kg$ $40-45 kg$ $40-45 kg$ DIMENSIONS $40x40x95 cm (WxDxH)$ $40x40x95 cm (WxDxH)$ $40x40x95 cm (WxDxH)$ $40x40x95 cm (WxDxH)$	POWER	Not required	Not required	Not required	Not requ
WEIGTH   35-45 kg   40-45 kg   <	CONNECTIONS	G 1/4	G 1/4	G 1/4	G 1/4
DIMENSIONS   40x40x95 cm (WxDxH)   <	WEIGTH	35-45 kg	40-45 kg	40-45 kg	40-45
	DIMENSIONS	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)	40x40x95 cm (WxDxH)	40x40x95 cm







#### ZERO **JRITY S**

LC/MS ision Cell

ar LC/MS Collision Cell

an existing clean and air network

nent once per year

arts on the generator

ired

kg

(WxDxH)

FLOW RATE

PURITY

AIR INLET PRESSURE RECOMMENDED

NO INTERNAL COMPRESSOR

EASY AND QUICK MAINTENANCE

NOISE

POWER

CONNECTIONS

WEIGTH

DIMENSIONS