

## FID STATION 50LC : HIGH PURITY HYDROGEN & ZERO AIR GENERATORS WITH ON BOARD COMPRESSOR



# H<sub>2</sub> + AIR

### APPLICATION

- ✓ Combustion gases for FID

### DESCRIPTION

PEUS-Instruments designed the **FID STATION 50LC** product line of **High Purity Hydrogen & Zero Air generators with compressor** to supply independently all gases necessary to FID detector, close to the consumer in laboratory environment.

The FID Station is composed of an Hydrogen generator, an Ultra Zero Air generator and an AIR compressor:

Based on the field proven Solid Polymer Electrolyte (PEM) cell technology, pure Hydrogen is produced at low pressure from electricity and high quality distilled water. It is available 24/7 with constant purity >99.999%. Output pressure is regulated electronically and could be set from 0.5 to 7 bar. This process can be started on demand and does not require any caustic solution. Based on the Pressure Swing Adsorption (PSA) technology, compressed Air is first dried and filtered from pollutant gases; and then passes throughout an hot catalytic chamber to remove HC, CO and CH<sub>4</sub>. Output pressure is regulated from 0.5 to 5 bar.

Each instrument is equipped with high performance communication interfaces (RS485, Ethernet, WLAN) to create a very flexible gas network with local or central control.

Due to the software being focused on safety, automatic regulation and reliable communications, the **PEUS-Instruments FID STATION 50LC** is easy to install, reliable, safe and pleasant to operate.

### BENEFITS

- ✓ Reduces in operation costs. Return on investment within 15 months.
- ✓ Improves resolution and detection limit versus Helium only usage. Provides High pressure stability.
- ✓ H<sub>2</sub> and Zero Air available 24/7 at constant purity. No contamination.
- ✓ Independent source of Hydrogen and Zero Air that does not require any piping and can be easily moved around the laboratory. Remote control from PC, I-phone and I-pad
- ✓ Low noise compressor < 50dB(A).
- ✓ Very safe operation, internal leak-test, automatic shut-down, over-pressure valve, current and voltage limits.
- ✓ No handling and storage of cumbersome gas cylinders. No cylinder rental fee.
- ✓ Extended autonomy with 5L water tank.
- ✓ Long life compressor with power economy function.





# FID STATION 50LC

## SPECIFICATIONS

<b>Models</b>	<b>FIDSTATION50LC-100/1000 ; FIDSTATION50LC-250/3000 FIDSTATION50LC-500/6000</b>
Outflow capacities @ 1013/20°C	FIDSTATION50LC-100/1000 : 100 Nml/ min H2 & 1000 Nml/min AIR FIDSTATION50LC-250/3000 : 250 Nml/ min H2 & 3000 Nml/min AIR FIDSTATION50LC-500/6000 : 500 Nml/ min H2 & 6000 Nml/min AIR
H2 purity	>99.999% (maximum HC content: 0.1ppm )
AIR purity	< 0.05 ppm HCnm ; < 0.05 ppm CO and CH4
Dew point H2 and Air	< -40°C
Outlet Pressures	H2 : from 0.5 to 7 bar (7 to 100 psig), adjustable by software. AIR: from 0.5 to 5 bar (7 to 70 psig), adjustable by software.
Water quality	High purity distilled+filtered water. TOC free.
Water capacity	5L external tank. Generates about 6000L Hydrogen
Compressed Air	Supplied by internal compressor
Safety	Low H2 stored volume; over pressure valve; internal leak test; automatic shut down; maximum current limit, water quality, over temperature.
Sound pressure	< 50 dB(A), measured at 1m
Manual control	ON-OFF power switch, buzzer and Bi-color LED for functioning status+alarms
Remote control, Communications	<ul style="list-style-type: none"> <li>■ Through 2 potential free relay contacts (I/O)</li> <li>■ RS485 (Mod-Bus), USB.</li> <li>■ Trough Ethernet 10/100 network (option)</li> <li>■ Trough WLAN network, with PC, I-Phone, I-Pad (option)</li> <li>■ Log book download by USB.</li> </ul>
Outlet fittings	Stainless steel 1/8" OD compression
Power supply	Automatic switching from 90VAC to 260VAC, 47 to 63 Hz
Power consumption ( max at full flow)	FIDSTATION50LC-100/1000 : maximum 550W FIDSTATION50LC-250/3000 : maximum 650W FIDSTATION50LC-500/6000 : maximum 800W
Dimensions	W=220mm, H=540mm, D=450mm with castors
Net weight	FIDSTATION50LC-100/1000 & FIDSTATION50LC-250/3000 : 29 Kg FIDSTATION50LC-500/6000: 31 Kg
Certification	CE

## ORDERING NUMBERS

Model	Article #
FIDSTATION50LC-100/1000	742101
FIDSTATION50LC-250/3000	742103
FIDSTATION50LC-500/6000	742105

Model	Article #
WLAN Interface option	742181
LAN Interface option	742182
ZERO WATER 12x5L refill	711092

## PEUS- INSTRUMENTS GmbH

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