ZERO-AIR – Generator for GC-FID‘s

FEATURES & BENEFITS

- Eliminates costly dangerous gas cylinders
- Significant savings over cylinders
- Simple installation, no special requirements
- Constant purity with no fall off in performance
- Sophisticated control and safety system with automatic changeover switch
- Meets all standards and regulations

Technical Details

For GC-FID there are six new models in the **SMART** series to produce zero air of the highest possible purity from compressed air. All models are absolutely noiseless and easy to install. The generators continously produce zero-air with hydrocarbon content < 0,1 ppm (measured as methane). They cover requirements for zero-air for up to 160 FID´s at outlet pressures between 2 bar and 10 bar. Using modern filter technology to remove particles, water and oil-vapors, the generator works with your compressed air. The catalytical chamber stage than removes disturbing traces of hydrocarbon. Maximum air flow rate, gas/air supply, required temperature in the reactor and electrical requirements are checked and supervised continiously. If there is a fault or crossover of the critical values an alarm is given immediately via relays corresponding to ISO 9000. If the generators detect a fault they automatically switch over to back-up gas cylinders or cut off the gas delivery to the lab. The user can then eliminate the fault and reset the alarm. Even the biggest model delivers up to 50 l/min zero air of constant high purity, within 10 minutes of starting.

Benefits:

⇒ Absolutely even base line in the apparatus, with practically no peaks.
⇒ Highest possible gas quality equivalent to UHP-gases; significant savings over gas cylinders.
⇒ Low inlet air pressure allows the generator to be located at point of use in the lab, i.e. where the pure gases are needed.
⇒ Enourmous saving of space and time.
⇒ Automatic switchover to back-up-cylinders when a fault is detected by the system.

Compressed air supply

All models of the **SMART** series are available with an external low noise and oil-less air compressor for permanent use (< 55 dbA).

Technical data

Typ	ZA 2000	ZA 4000	ZA 7500	ZA 20 K	ZA 35 K	ZA 50 K
Max Air Flow Rate (ml/min)	2000	4000	7500	20000	35000	50000
Max. Inlet Hydrocarbon Concentr.	100 ppm (as Methane)					
Outlet Hydrocarbon Concentration	**< 0,1 ppm (as Methane)**					
Outlet Port (Swagelok®)	Without display		With display			
Electrical Requirements	230 V / 50 Hz					
Start Up Time	Ca. 10 min.					
Energy Consumption (W/h)	<30	<50	<80	<100	<130	<150
Power Take-Up (at switch-on)	420 W			1600 W		
Dimensions (H*W*D) in mm	270 x 340 x 460			330 x 460 x 560		
Shipping Weight (kg)	13	15	19	25	28	32

Options:

⇒ **Flowmeter**
⇒ **Pressure-gauge**
⇒ **Temperature OK / stand by (LED view of catalyst)**
⇒ **Potentialfree contacts without hold-function**
  Voltage Failure
  Failure Air/ Gas- Supply (1 to 8 bar adjustable)
  Overheating in the Catalytical Chamber
  Exceed of maximum Flow Capacity
⇒ **Potentialfree contacts with hold-function**
  Example: In case of „Failure Air/Gas-Supply“, which means no pressure out of the compressor, immediately an alarm is given via relais. After elimination of the fault the alarm **has to be quit manually** and the generator starts service again.
⇒ **Reaction to fault detection**
  gas delivery cut-off
  automatic switchover to back-up cylinders

cmc **Instruments GmbH**
Meß-, Regel- und Analysentechnik
Hauptstraße 388
D-65760 Eschborn, Germany
fon: + 49 6173 / 32 00 78
fax: + 49 6173 / 6 50 50
e-mail: cmcingmbh@aol.com
www.cmc-instruments.de