LGD Laser diode detector for NH_3 / H_2O

- **Highlights**
  - compact solution for ammonia measuring
  - stand alone device
  - heated sampling system
  - integrated membrane pump
  - integrated filter
  - integrated pressure regulator for high inlet pressure
  - cross-sensitivity to H_2O included
  - no other cross-sensitivities
  - stationary (230 VAC) and mobile (24 VDC) operation
  - measured values long-term stable

NH_3 Laser Measuring System

Article no. 5601-00158

- **Features / description**
  - Compact stand alone solution for ammonia measuring with filter and pump
  - measuring component ammonia gas with customized ranges,
    e. g. 0 … 100 ppm / 0 … 1.000 ppm / 0 … 10.000 ppm
  - pressure autonomous measuring inlet; inlet pressure up to 3 bar
  - continuous heated sampling system up to 190 °C
  - self-priming **pump** with rotation speed control
  - electronic controlled **flow**, range 1 … 5 l/min
  - heated **filtration** with glass fiber surface, without hang-up-effect
  - different filter volumes, e. g. small volume for quick response time
  - no compressed air necessary by using a membrane pump
  - manifold applications: test bench (230 VAC), mobile operation on the street (24 VDC), combinable with existing PEMS
  - integrated temperature controller for internal oven and heated line (24 V)
  - integrated software module for air mass compensation
  - cross-sensitivity to H_2O included, no other cross-sensitivities
  - measured values long-term stable

- **Technical data**

compact design	19“/2, depth 400 mm, 4 RU
measure component	NH_3, further components possible, e. g. H_2O, CO_2, NO
sample flow	1 … 5 l/min
sampling rate	1 Hz or 10 Hz
cell volume	15 ml (1 Hz bei 0,9 l/min, 3 Hz bei 2,7 l/min, 10 Hz bei 9 l/min)
accuracy NH3	±2 % rel. deviation at measuring point
lower detection limit	0.8 ppm
repeatability	0.35 %
drift	1.5 % per 24 hours
response time T90	1 … 2 sec dependent on flow
laser path length	400 mm
interfaces	CAN (dbc, INCA, CANalyzer, Vector) and LAN (AK)
test gas and zero gas inlets with Quick Connect plugs, internal valve switching	
power supply	22...28 VDC or 230 VAC uninterruptible change between 24 VDC and 230 VAC
power consumption	max. 300 VA
weight	8.4 kg

- **Accessories**

VEX:gui	display with control buttons
analog out	analog out for measuring values
XERO	software for visualization and control
MGL 1 m	heated sample tube, 24 V, controlled by an internal temperature controller inside the LGD