

LGD Laser diode detector for ammonia NH_3



Highlights

EU7 compact stand alone device for NH_3 measurement for EURO 7

All in one integrated heated sampling system

Plug and Play quick setup, simple operation

Calibration fully integrated calibration routines according EU7

Flexible usage stationary (Test bed) and mobile (PEMS)

Quality high quality measurement, long-term stable, low noise

Interfaces all standard interfaces: AK, CAN, dbc

Low Hang-up reduced Hang-up-effects



NH₃ Laser Measuring System

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..300 ppm / 0..1000 ppm / 0..3000 ppm
- continuous heated sampling system up to 190 °C
- self-priming membrane **pump** with rotation speed control, no compressed air necessary
- electronic controlled **flow**, range 1..5 l/min
- heated **filtration** with glass fiber surface, without hang-up-effect
- all parts made of passivated stainless steel, PFA and FPM to reduce hang-up effects
- integrated span gas switching module for automatic adjust
- NH₃ Loss Detection and further **quality checks** (accuracy, noise, repeatability, drift, leakage)
- 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 H₂O included, no other cross-sensitivities
- option: pressure regulator for inlet pressure up to 3 bar, pressure autonomous measuring inlet

Technical data

- compact design 19"/2, depth 400 mm, 4 RU
- measure component NH₃ and H₂O
- sample flow 1..5 l/min
- sampling rate 1 Hz (5601-00158) or special edition 10 Hz (5601-00183)
- 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, corresponding to **EURO 7**
- repeatability <0.35 % at measuring point
- drift <1,5 % of range per 24 hours (range 100 ppm or higher)
- linearity <2 % at measuring point
- cross-sensitivity <2 % at measuring point to H₂O, no other cross-sensitivities
- 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

- XERO software for visualization and control
- VEX:gui display with control buttons and graphic, with „pages“-software
- analog out analog out for measuring values
- MGL PFA heated sample tube, 24 V, length 1 m or 1,5 m
- sample probe special passivated NH₃ sample probe