

## LD500

### Laser Diode Gas Analyser

The Opsis LD500 Analyser is the central unit in the laser diode gas monitoring system. It can house up to four laser diode heads. Each head is a complete laser control and data sampling system. A built-in PC with LCD display controls the function of the instrument.

The LD500 will emit light from the internal laser diode to an emitter via a fibre optic cable. A receiver converts the signal and sends it back via a second fibre optic communication cable to the LD500 analyser. The LD500 will

process and evaluate the signals and provide measurement results with response times down to one second.

Please refer to page two for the gases that can be measured. The specifications for each gas are presented in the respective application sheet.

The system can be configured according to the system examples described on page four.

Altogether, the LD500 analyser can measure on up to eight paths.

## Technical Specifications (standard)

Dimensions (L × W × H)	485 × 450 × 200 mm, 19" rack
Weight incl. case (approx.)	15 kg
Voltage supply	230 V <sub>AC</sub> (+6%, -10%) / 115 V <sub>AC</sub> (±10%) 50/60 Hz
Power consumption	110 W
Computer	PC compatible
CF memory	512 Mb
External modem	Hayes compatible
Serial outputs	RS 232
Ambient temperature	+15°C to +25°C (+60°F to +75°F)
Degree of protection	IP 20

### An LD500 includes as standard

Central unit with 6.4" LCD monitor and keyboard  
PC and slots for four laser modules  
External modem  
4 × RS 232  
Communication card CC202L  
USB port

### Standard separately ordered

One laser head  
One ER060L / ER080L / ER110L / ER150L emitter and receiver unit  
or ER120L and RR090L transceiver and retro-reflector  
One OF010 / OF005 laser optical fibre cable  
One CF120 optical communication fibre  
Gas calibration EG002 (one for each gas)  
LA060 light adjustment kit for the emitter/receiver heads

*Specifications subject to change without notice*

## Laser Optical Fibre

OF010-xxx Laser fibre for modules  
LH511, LH512, LH513,  
LH514 and LH516  
OF005-xxx Laser fibre for module  
LH515 and LH517

-xxx = number of metres

## Laser Heads

LH511 HF/H<sub>2</sub>O laser module  
LH512 HCl/H<sub>2</sub>O laser module  
LH513 NH<sub>3</sub>/H<sub>2</sub>O laser module  
LH514 CO/CO<sub>2</sub>/H<sub>2</sub>S laser module  
LH515 O<sub>2</sub> laser module  
LH516 CH<sub>4</sub>/H<sub>2</sub>O laser module  
LH517 H<sub>2</sub>O/Temperature laser module

## Options

Additional laser heads (up to 4)  
Additional monitoring paths (up to 8)  
Additional serial ports  
Additional communication card CC202L  
RE060L-EEx receiver for use with EM060L emitter for explosion  
classified areas Zone 1  
External screen

## Accessories

AC180 Air-conditioned cabinet  
Auto-calibration equipment  
MX10XL Multiplexer\*  
MXX01L Demultiplexer\*  
I/O Management software IO256  
Digital and analogue input and output modules  
Short-haul modems  
Sensors  
Dataloggers  
EnviMan Software

\* Please specify the number of inputs/outputs and type of laser(s)

Multiplexer/Demultiplexer MXXXXL



Light adjustment LA060



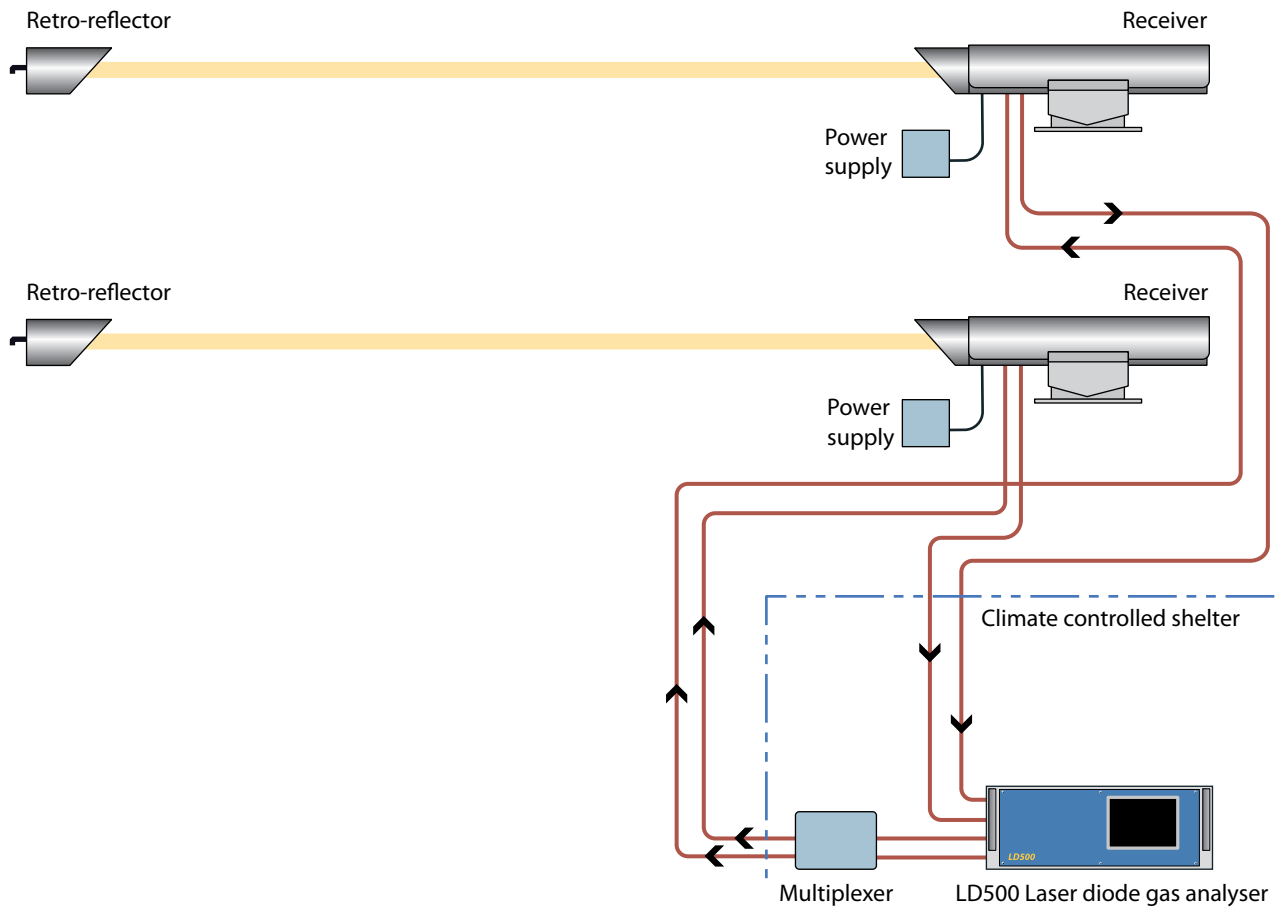
Example of an emitter and receiver unit – ER060L



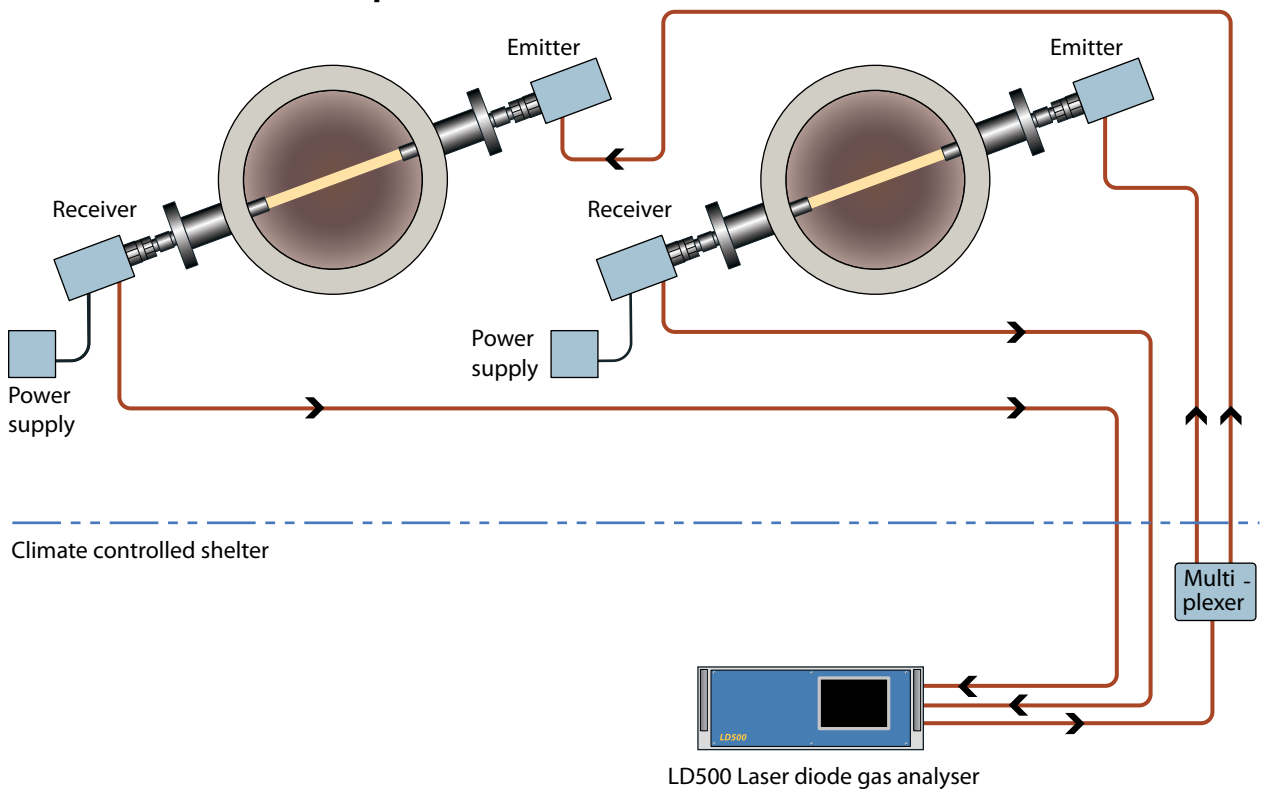
Communication cable CF120



## System Overview of an AQM Example

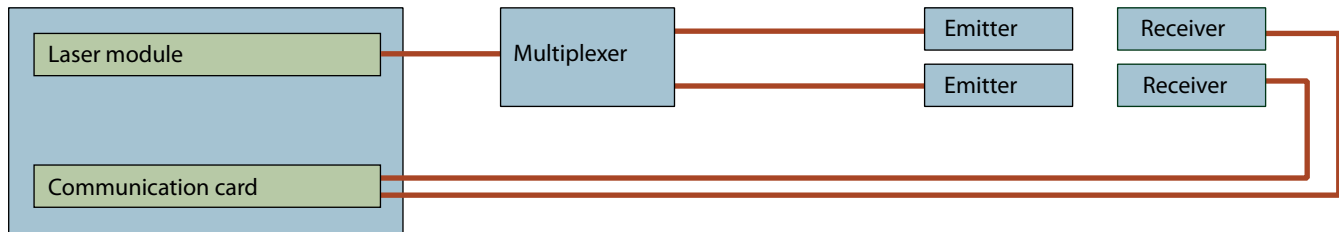


## System Overview of a CEM Example



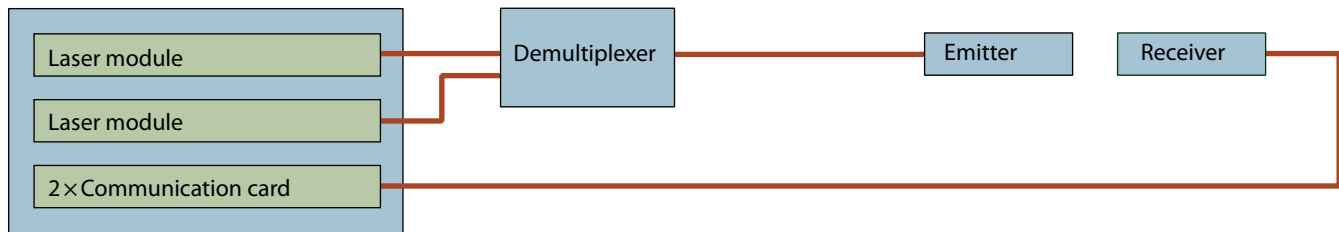
## System Configurations – 3 Examples

### One laser module for two paths



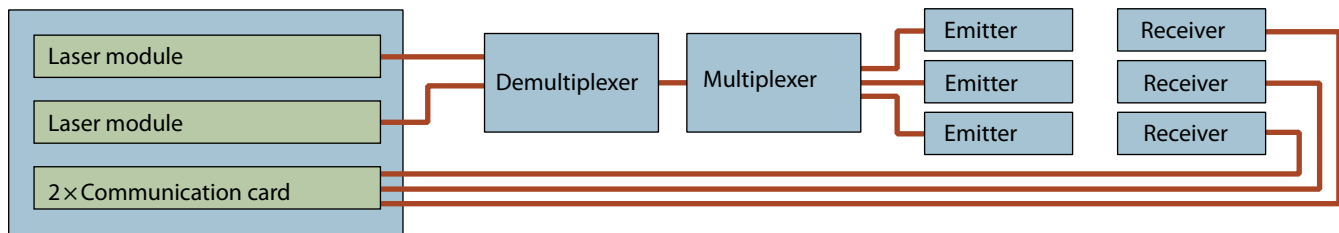
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### Two laser modules for one path



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### Two laser modules for three paths



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