

optima7
NDIR

Powerful handheld multigas analyser

for petrol or diesel
engine exhaust gas
measurements

- 5 gas measurements
- Lambda calculation
- Engine oil temperature
- P.E.F. factor



O₂
ECS

NO
ECS

CO
NDIR

HC
NDIR

CO₂
NDIR

MRU – over 30 years of
innovative gas analysis!

The slim multi talent handheld car exhaust gas analyser

Suitable for real time measurements of petrol and diesel car exhaust gas.

Intuitive software menu and bright colour display will guide you through all measuring programs. Electrochemical cells for O₂ and NO together with high-tec NDIR bench for CO, CO₂ and HC measures fast and accurate the exhaust gas.

Store up to 16.000 data sets directly in the analyser's internal data storage or on micro-SD card, or even use Bluetooth™ for wireless data transfer to notebook or MRU4u data app for smartphone or tablet. Printing via infrared, high speed thermal printer is at the tip of your fingers.

Mini-USB for cable data transfer and power supply or battery charging

Infrared printer interface

SD-card slot for data storage

3,5" colour TFT display with backlight and zoom function

Bluetooth™ for data transfer or analyser remote control

Logical and intuitive software menu

Effective, backlit condensate separator

Soft, anti-skid side panels

3 fixing magnets on the back for secure grip

Rugged, fibreglass reinforced enclosure

Compact enclosure, 110x225x52 mm (WxHxD), low weight (approx. 750 g)

K-type temperature sockets for T oil and T air

Robust stainless steel gas connectors

differential pressure inlet ports





Robust, low weight case



Hands free operation
with magnets which can
fix the analyser on any
magnetic object.



**Storage, transfer or print
measured data**
using the multiple choices
among micro-SD card,
mini-USB, Bluetooth™ for
wireless transfer to smart-
phone or tablet and infrared
printing.



Shoulder strap



Convenient nylon bag



**Condensate and dirt
are kept away**
using the large condensate
trap with Teflon coated
particulate filter.



Oil temperature probe
with NiCrNi thermocouple



Gas sampling probe
with flexible tube and
Viton hose

Main features:

- exhaust gas measurement for all petrol and diesel engines
- engine oil temperature measurement
- Lambda calculation using Brettschneider formula
- P.E.F. factor (required for calibration)
- automatic measurement with averaging
- high-range CO measurement using infrared bench
- O₂ longlife measurement
- rechargeable Lithium-Ion battery for approx. 8 hours operation



Product information:
see www.mru.eu
or scan adjacent
QR-code

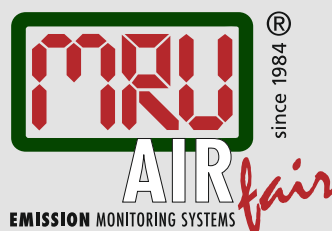
OPTIMA7 NDIR

Technical specifications

Measurement components	Range	Resolution	Accuracy
Carbon monoxide CO NDIR	0 ... 16,000 Vol.-%	0,001 %	± 0,02 % or 3 % reading**
Carbon dioxide CO ₂ NDIR	0 ... 20,00 Vol.-%	0,01 %	± 0,03 % or 5 % reading **
Hydrocarbon HC NDIR	0 ... 20.000 ppm	1 ppm	± 12 ppm or 3 % reading**
Oxygen O ₂	0 ... 25,00 Vol.-%	0,01 %	± 0,2 Vol.-% abs.
Nitric monoxide NO	0 ... 1.000 / 5.000 ppm*	1 ppm	± 5 ppm or 5 % reading up to 1.000 ppm** or 10 % reading up to 5.000 ppm**
Engine oil temperature T.oil	0 ... 200 °C	0,1°C	± 2 °C
Air temperature T.air	0... 100 °C	0,1 °C	± 1 °C
Differential pressure	- 100 ... + 100 hPa	0,01 hPa	± 0,02 hPa
Calculated values			
Lambda	0 ... 99,9 (using Brettschneider)		
P.E.F.	propane equivalency factor		
General specifications			
Operation temperature	+ 5 ... + 45 °C, max. 95 % RH, non condensing		
Storage temperature	0 ... + 50 °C		
Data storage	dynamic, up to 16.000 measurements		
Interfaces	mini-USB, SD, Infrared, Bluetooth™ (data transfer to smartphone, tablet or PC)		
Power supply	high energy Lithium-Ion battery (approx. 8 h operation)		
Mains	wall-plug grid power supply, 100 - 240 Vac / 50 ... 60 Hz		
Protection class	IP 30		
Weight	approx. 750 g		
Dimensions	110 x 225 x 52 mm (W x H x D)		

MRU – over 30 years of innovative gas analysis!

MRU representative:



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** the higher value applies

* overload for short term measurement only

Data subject to change without notice.

W-4103GB-K0-XX-039