



MRU – Competence in gas analysis. Since 1984.

## 400GD & 500GD

Multifunction gas detectors and measuring instruments.

↔ **With smart sensor quick change system.**



# 400GD

Small, handy, easy to handle  
(without suction mechanism)

## Multifunction detector and measuring device

- Plug & play sensors with automatic device recognition
- Optical alarm at the sensor and on the display of the device (only leak detection)
- Acoustic and vibration alarm by the device (only leak detection)
- Adjustable alarm thresholds (only leak detection)
- Indication of gas concentration in ppm, % and %LEL (HC-sensor)
- Strong Lithium-Ion battery, chargeable via Mini-USB socket
- QR-codes for measurement results, with forwarding via email



# Sensor quick change system

The suitable sensor for every application



## Leak detection on air conditioning units

RF-sensor (refrigerant)



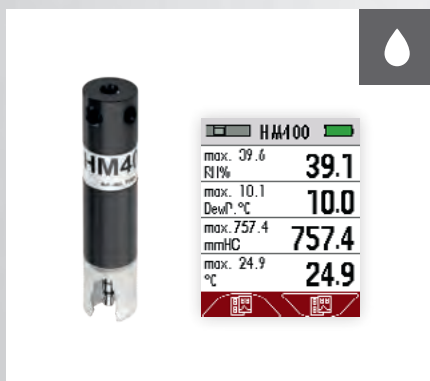
## Leak detection on gas installations

HC-sensor (flammable gases)



## Spillage test on flue gas systems\*

RM-sensor (spillage test)



## Check of indoor climate\*

HM-sensor (humidity, temperature, barometric pressure and dew point)



## Contactless temperature measurement\*

IR-sensor (surface temperature)



## Measurement of carbon monoxide in ambient air\*

CO-sensor



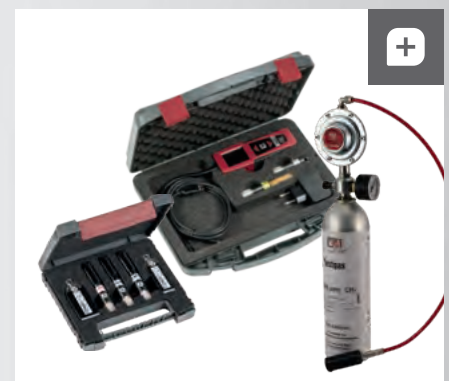
## Measurement of carbon dioxide in ambient air\*

CO<sub>2</sub>-sensor



## LED flashlight\*

21 lumens, 5,000 K



## Practical accessories

Test and calibration set as well as transport and storage case

\*Usage on 500GD only possible without suction feature

# 500GD

Fast, selective and powerful  
(with suction feature)

## Multifunction detector and measuring device

- Fast measurement results due to integrated suction feature (1 ... 1.5 seconds)
- Search mode for quick leak detection
- Reliable zeroing, even with contaminated ambient air
- Display in ppm for precise location of gas leaks and determination of the gas concentration
- Sensor change during operation possible, automatic recognition by the device
- Adjustable alarm thresholds (only leak detection)
- Optical alarm on the display of the device (only leak detection)
- Acoustic and vibration alarm by the device (only leak detection)
- Clear graphic display (TFT)
- Strong Lithium-Ion battery, chargeable via Mini-USB socket
- Display of measurement results also as QR code (forwarding measuring results via e-mail)



# 400GD

## Technical data

### 400GD basic unit

<b>Rel. humidity during operation, non-condensing</b>	95 %
<b>Display</b>	45 mm (1.8") TFT
<b>Interface (Charging/firmware updates)</b>	Mini-USB
<b>Built-in battery, operating time (depending on sensor)</b>	Li-Ion, typ. 20 h
<b>Operating conditions</b>	+5 ... +50 °C
<b>Storage conditions</b>	-20 ... +60 °C
<b>Power supply / consumption</b>	100 ... 240 V, 5 V DC, 500 mA
<b>Protection class</b>	IP30
<b>Dimensions (W x H x D)</b>	50 x 135 x 35 mm
<b>Weight</b>	appr. 230 g

Plug & Play Sensors	Description	Measuring range	Resolution	Response time
<b>CH<sub>4</sub> (Leak detection gas)</b>	HC400/401/402	0 ... 22,000 ppm	1 ppm	< 5 sec.
<b>C<sub>3</sub>H<sub>8</sub> (Leak detection gas)</b>	HC401/402	0 ... 8.500 ppm	1 ppm	< 5 sec.
<b>H<sub>2</sub> (Leak detection gas)</b>	HC402	0 ... 20,000 ppm	1 ppm	< 5 sec.
<b>Spillage test</b>	RM400	0 ... 100	1	< 1 sec.
<b>Humidity (Indoor climate)</b>	HM400	0 ... 100% RH	0,1 %	
<b>Temperature (Indoor climate)</b>	HM400	0 ... +60 °C	0,1 °C	
<b>Barometric pressure (Indoor climate)</b>	HM400	300 ... 1,100 hPa	0,1 hPa	
<b>Dew point</b>	HM400	calculated from humidity and temperature		
<b>Temperature</b>	IR400	-70 ... +380 °C	0,1 °C	
<b>Carbon monoxide measurement</b>	CO400	0 ... 1,000 ppm	1 ppm	< 30 sec.
<b>Carbon dioxide measurement</b>	CD400	400 ... 10,000 ppm	1 ppm	90 sec.

### Leak detection refrigerant

<b>Description</b>	RF sensor
<b>Reference refrigerant</b>	R134a, H2, R410a, R1234Ze
<b>Detectable refrigerant</b>	CFC, HCFC, PFC, HFC, HFO
<b>Measuring range</b>	0 ... 1,000 ppm
<b>Resolution</b>	1 ppm
<b>Detection limit</b>	5 g/year
<b>Response time</b>	< 4 sec.

# 500GD

## Technical data

500GD basic unit	
Rel. humidity during operation, non-condensing	95 %
Display	45 mm (1.8") TFT
Interface (Charging/firmware updates)	Mini-USB
Built-in battery, operating time (depending on sensor)	Li-Ion, typ. 20 h
Operating conditions	+5 ... +50 °C
Storage conditions	-20 ... +60 °C
Power supply/consumption	100 ... 240 V, 5 V DC, 500 mA
Protection class	IP30
Dimensions (W x H x D)	50 x 163 x 25 mm
Weight	appr. 220 g

Plug & Play Sensors	Description	Measuring range	Resolution	Response time
CH <sub>4</sub> (Leak detection gas)	HC400/401/402	0 ... 22,000 ppm	1 ppm	≤ 3 sec.
C <sub>3</sub> H <sub>8</sub> (Leak detection gas)	HC401/402	0 ... 8.500 ppm	1 ppm	≤ 3 sec.
H <sub>2</sub> (Leak detection gas)	HC402	0 ... 20,000 ppm	1 ppm	≤ 5 sec.
Spillage test	RM400	0 ... 100	1	< 1 sec.
Humidity (Indoor climate)	HM400	0 ... 100% RH	0,1 %	
Temperature (Indoor climate)	HM400	0 ... +60 °C	0,1 °C	
Barometric pressure (Indoor climate)	HM400	300 ... 1,100 hPa	0,1 hPa	
Dew point	HM400	calculated from humidity and temperature		
Temperature	IR400	-70 ... +380 °C	0,1 °C	
Carbon monoxide measurement	CO400	0 ... 1,000 ppm	1 ppm	< 30 sec.
Carbon dioxide measurement	CD400	400 ... 10,000 ppm	1 ppm	90 sec.

Leak detection refrigerant	
Description	RF sensor
Reference refrigerant	R134a, H2, R410a, R1234Ze
Detectable refrigerant	CFC, HCFC, PFC, HFC, HFO
Measuring range	0 ... 1,000 ppm
Resolution	1 ppm
Detection limit (R134a, R1234yf, R290)	1 g/year
Response time	≤ 1,5 sec.
Compliant to	DIN EN 14624

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