



MRU – Competence in gas analysis. For over 35 years.

## 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)



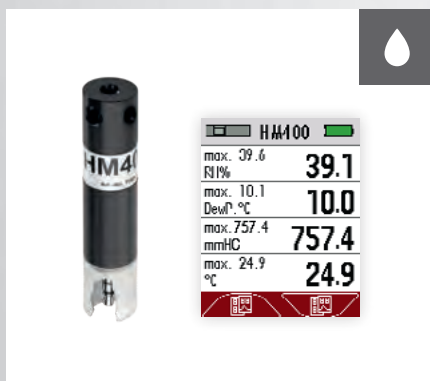
## Leak detection on gas installations

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



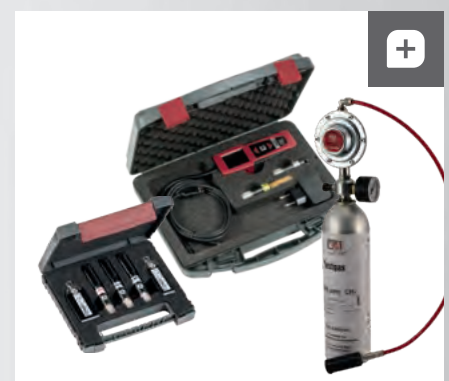
## Measurement of carbon dioxide in ambient air\*

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

# 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> | FCKW, HFCKW, FKW, HFKW, 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             |                             |
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| Description                            | RF sensor                   |
| Reference refrigerant                  | R134a, H2, R410a, R1234Ze   |
| Detectable refrigerant                 | FCKW, HFCKW, FKW, HFKW, 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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### MRU · Messgeraete fuer Rauchgase und Umweltschutz GmbH

Fuchshalde 8 + 12  
74172 Neckarsulm-Obereisesheim  
Phone +49 7132 99620 · Fax +49 7132 996220  
info@mru.de · www.mru.eu

MRU representative: