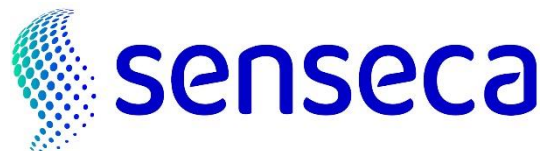


# PRO D01 / PRO D05



## Handheld multifunction meters/data loggers

### 1, 2 or 3-connections for digital probes



- 1 (PRO D01), 2 (PRO D05.2) or 3 sensor connectors (PRO D05.3)
- Wide range of interchangeable and automatically recognized digital probes can be connected
- Fast and accurate
- Easy to use and read due to backlit **dot matrix/clear text** display
- Various measurement views available, including life chart
- Data logger with files read out via USB (only PRO D05)
- statistical functions Min, Avg, Max
- Acoustic alarm with high/low thresholds and optional hysteresis
- List of favorite functions for quick access to the most used operations
- Built-in foldable stand and magnet for flexible operation
- Shock and impact proof
- IP 67 waterproof
- NiMH batteries rechargeable via USB

## DESCRIPTION

PRO D01 (1-connector), PRO D05.2 (2-connector) and PRO D05.3 (3-connector) are high class professional multifunction handheld meters with a rich set of features, high grade robustness and operating comfort for safe and reliable use. PRO D05.2 and PRO D05.3 also have data logging capabilities and a USB-rechargeable battery system.

### Probes

The data logger communicates digitally with the probe. The digital communication allows longer probe cables (up to 10 m).

The wide range of probes available allows measuring:

- Temperature
- Absolute, relative and differential pressure
- Humidity: relative and absolute, Dew Point, wet bulb temperature, mixing ratio, partial vapor pressure
- Air speed, flow rate (configurable duct section)
- Illuminance, luminance, irradiance, UVA, UVB, UVC, UVBC, PAR. Integral calculation with manual start/stop and setting of time/value limit.
- Indoor Air Quality (IAQ): CO<sub>2</sub> and VOC index

More will follow.

The digital probes are supplied factory adjusted with adjustment data stored internally, allowing for interchangeability without the need for readjustment when changing the probes.

The probe type is automatically recognized, and the instrument is automatically set without any user intervention.



**PRO D05.3 model – M12 sensor connectors**

### **Display**

The multilingual large dot matrix/clear text LCD has ergonomic wide-angle visibility from daylight to darkness, thanks to the backlight. It displays either large scale values, statistical data or the chart of a variable measurement history.

The HOLD feature allows freezing the measurements on display, while the REL feature allows showing the measurement against the measured value.

Many units of measurement are available, depending on the connected probes.

### **Data logging (only PRO D05)**

Large storage capacity: up to 1 million data, file system based.

The logged data are store in CVS files that can be easily viewed connecting the instrument to a PC via USB: the instrument is seen by the PC as a mass storage device, the data can be read out and evaluated without software necessarily needed.

Automatic log with configurable interval.

The instruments integrate a Real Time Clock: date and time of each logged sample are stored.

### **Application software**

In addition to CSV files, the free user-friendly basic **ProXware** PC application software allows for examination of a large amount of logged data.

For a more in-depth data analysis, an optional advanced version of the **ProXware** software is available.

### **Alarm**

Configurable alarm thresholds and optionally hysteresis can be set. LCD indication and buzzer activation when thresholds are exceeded.

### **Statistics**

Detection of MIN, AVG (average) and MAX for each displayed variable. The user can clear the statistical info to start a new statistical calculation.

### **PC connectivity**

Via the USB C port, for viewing or downloading the files stored in the instrument internal memory (only PRO D05) or connecting to the application software **ProXware**.

### **Power supply**

4 Powerful AA batteries, the low power design and the configurable auto-off feature are ensuring long operation.

For permanent operation the instrument can also be powered via its USB C port.

While the basic model PRO D01 is designed for Alkaline batteries, all data logger variants PRO D05 are equipped with NiMH batteries and charging electronics. Any standard 5 Vdc power adapter or a PC USB port can be used (ensuring at least 900 mA for fast charging of the PRO D05.x batteries).

Configurable LCD backlight for more energy saving options.

### **Ergonomics**

The construction allows for both one-handed use as well as bench-top use with the foldable back stand.

Side rubber protection offers a secure grip during the use in the field.

### **Calibration support**

Calibration reports or DAkkS/ACCREDIA certificates are available upon request in combination with referring probes.

The last calibration date is stored.

## TECHNICAL SPECIFICATIONS

### General specifications

|                                 |   |
|---------------------------------|---|
| Inputs                          | 1 (PRO D01), 2 (PRO D05.2) or 3 (PRO D05.3)<br>5-pole M12 connector for digital probes  |
| Storage capacity (only PRO D05) | Up to 1 million data sets, file system based<br>Each data set includes date/time stamp and measurements (of all channels for multi-channel data loggers)<br>Data are stored in CVS files  |
| Logging type (only PRO D05)     | Automatic with manual start/stop  |
| Logging interval (only PRO D05) | 1, 5, 10, 15, 30 s / 1, 2, 5, 10, 15, 20, 30 min / 1 hour   |
| Measurement rate                | 2 meas/s  |
| Clock                           | User settable RTC<br>Max. drift 1 min/month @ 25 °C   |
| Display                         | 140 x 160 dot matrix backlit LCD / visible area 42 x 50 mm<br>Multiple choice of measurement screens: <ul style="list-style-type: none"> <li>• Large digit single value</li> <li>• Multi-row</li> <li>• Statistical info (Min/Avg/Max)</li> <li>• Chart view</li> </ul> |
| User interface                  | Multilingual (de, en, it, fr, es)   |
| PC connection                   | USB C<br>Mass Storage Device  |
| Power supply                    | 4 x AA batteries,<br>PRO D01: 4 x AA Alkaline non rechargeable<br>PRO D05: 4 x AA NiMH rechargeable<br>External 5 Vdc via USB C (power adapter or PC USB port)  |
| Power consumption               | 10 mA typ. (excluding probes)   |
| Battery autonomy                | > 200 h typ. continuous operation (fully charged batteries and backlight off). <b>The effective autonomy depends on the number and type of connected sensors.</b>   |
| Auto power off                  | Yes, user configurable<br>Automatically disabled if external power is connected   |
| Operating conditions            | -5...50 °C / 0...85 %RH non-condensing  |
| Storage temperature             | -25...65 °C (without batteries)   |
| Protection degree               | IP 67 (except probe connection)<br>IK 04  |
| Dimensions                      | 170 x 78 x 38 mm  |
| Weight                          | PRO D01: 340 g approx.<br>PRO D05.2: 370 g approx.<br>PRO D05.3: 380 g approx.  |
| Housing material                | ABS, TPE (side protection), Polyester (front panel)   |

## ORDERING CODES

|                  |   |                       |
|------------------|---|-----------------------|
| <b>PRO D01</b>   | Single-input handheld meter for digital probes. Supplied with 4 x AA alkaline batteries.  | <b>Art.No. 486134</b> |
| <b>PRO D05.2</b> | 2-input handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website. | <b>Art.No. 486136</b> |
| <b>PRO D05.3</b> | 3-input handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website. | <b>Art.No. 486137</b> |

**Probes have to be ordered separately.**

## ATTACHABLE PROBES

### Temperature

|                          |   |                       |
|--------------------------|---|-----------------------|
| <b>DX 111-00-130-L01</b> | Digital Pt100 immersion probe, thin film sensor, stem Ø3 x 130 mm, cable length 1 m.                  | <b>Art.No. 486231</b> |
| <b>DX 111-00-230-L01</b> | Digital Pt100 immersion probe, thin film sensor, stem Ø3 x 230 mm, cable length 1 m.                  | <b>Art.No. 486236</b> |
| <b>DX 115-00-300-L02</b> | Digital Pt100 immersion probe, wire wound sensor, high precision, stem Ø3 x 300 mm, cable length 2 m. | <b>Art.No. 486229</b> |

### Relative humidity and temperature

|                   |  |                       |
|-------------------|--|-----------------------|
| <b>DX 310</b>     | Digital combined temperature and relative humidity probe, stem Ø14 x 101 mm.                   | <b>Art.No. 486793</b> |
| <b>DX 311-L01</b> | Digital combined temperature and relative humidity probe, stem Ø14 x 132 mm, cable length 1 m. | <b>Art.No. 486774</b> |

### Pressure

|                             |  |                       |
|-----------------------------|--|-----------------------|
| <b>DX 210-2.5hPa-00-L01</b> | Digital differential pressure probe. Measuring range: ±2.5 hPa. M12 connector, incl. 1 m M12 connection cable. | <b>Art.No. 486674</b> |
| <b>DX 210-20hPa-00-L01</b>  | Digital differential pressure probe. Measuring range: ±20 hPa. M12 connector, incl. 1 m M12 connection cable.  | <b>Art.No. 486675</b> |
| <b>DX 210-500hPa-00-L01</b> | Digital differential pressure probe. Measuring range: ±500 hPa. M12 connector, incl. 1 m M12 connection cable. | <b>Art.No. 486676</b> |
| <b>DX 210-200kPa-00-L01</b> | Digital differential pressure probe. Measuring range: ±200 kPa. M12 connector, incl. 1 m M12 connection cable. | <b>Art.No. 486677</b> |
| <b>DX 210-700kPa-00-L01</b> | Digital differential pressure probe. Measuring range: ±700 kPa. M12 connector, incl. 1 m M12 connection cable. | <b>Art.No. 486678</b> |
| <b>DX 240-200kPa-00-L01</b> | Digital absolute pressure probe. Measuring range: 0...200 kPa. M12 connector, incl. 1 m M12 connection cable.  | <b>Art.No. 486679</b> |

## Photo-radiometry

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|-----------------------------|---|-----------------------|
| <b>DX 610-L02</b>           | Digital photometric probe for the measurement of illuminance, spectral response according to standard photopic vision, diffuser for cosine correction, incl. 2 m M12 connection cable.  | <b>Art.No. 486775</b> |
| <b>DX 620-L02</b>           | Digital radiometric probe for the measurement of irradiance in the spectral range 400...1050 nm, diffuser for cosine correction, incl. 2 m M12 connection cable.  | <b>Art.No. 486776</b> |
| <b>DX 630-L02</b>           | Digital quantum-radiometric probe for the measurement of photon flux in the PAR chlorophyll field (photosynthetically Active Radiation 400...700 nm), diffuser for cosine correction, incl. 2 m M12 connection cable.   | <b>Art.No. 486777</b> |
| <b>DX 640-UVA-L02</b>       | Digital radiometric probe for the measurement of irradiance in the 315...400 nm UVA spectral range, quartz diffuser for cosine correction, incl. 2 m M12 connection cable.  | <b>Art.No. 486778</b> |
| <b>DX 680-L02</b>           | Digital radiometric probe for the measurement of effective irradiance in the Blue light spectral band. Spectral range 380...550 nm, diffuser for cosine correction, incl. 2 m M12 connection cable.   | <b>Art.No. 486782</b> |
| <b>DX 640-UVB-L02</b>       | Digital radiometric probe for the measurement of irradiance in the 280...315 nm UVB spectral range, quartz diffuser for cosine correction, incl. 2 m M12 connection cable.  | <b>t.b.d.</b>         |
| <b>DX 640-UVC-L02</b>       | Digital radiometric probe for the measurement of irradiance in the 220...280 nm UVC spectral range, quartz diffuser for cosine correction, incl. 2 m M12 connection cable.  | <b>t.b.d.</b>         |
| <b>DX 640-UVBC-L02</b>      | Digital radiometric probe for the measurement of irradiance in the 210...355 nm UVBC spectral range, quartz diffuser for cosine correction, incl. 2 m M12 connection cable.   | <b>t.b.d.</b>         |
| <b>DX 650-L02</b>           | Digital Photometric probe for the measurement of luminance, spectral response according to standard photopic vision, angle of view 2°, incl. 2 m M12 connection cable.  | <b>t.b.d</b>          |
| <b>DX 690-PHOT-UVA-L02</b>  | Digital combined probe for the measurement of illuminance, with standard photopic spectral response, and irradiance in the UVA spectral range. Diffuser for cosine correction. The ratio between UV irradiance and illuminance in $\mu\text{W}/\text{lumen}$ is provided, incl. 2 m M12 connection cable.                       | <b>t.b.d.</b>         |
| <b>DX 690-Eeff-UVBC-L02</b> | Digital combined probe for the measurement of effective total irradiance according to UV action curve (250...400 nm). Diffuser for cosine correction. The probe provides the effective total irradiance ( $E_{\text{eff}}$ ), the effective irradiance in the UV-CB band and the UV irradiance, incl. 2 m M12 connection cable. | <b>t.b.d.</b>         |

## Air quality

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|                  |   |                       |
|------------------|---|-----------------------|
| <b>DX 330-00</b> | Digital VOC index, CO <sub>2</sub> , temperature, relative humidity and atmospheric pressure probe. | <b>Art.No. 486786</b> |
|------------------|---|-----------------------|