

TEMPERATURE, HUMIDITY AND CARBON DIOXIDE (CO₂) WIRELESS DATA LOGGER



HD35ED-O-1NB-E

Art. no. 609836

Temperature, humidity and carbon dioxide (CO₂) wireless data logger, without display

HD35ED-G-1NB-E

Art. no. 608701

Temperature, humidity and carbon dioxide (CO₂) wireless data logger, with display

General:

HD35ED-G-1NB-E stores the measures in its internal memory (44,000 samples) and transmits the logged data to the base unit automatically at regular intervals or upon request. The sensors are all inside the housing.

Calculated quantities: dew point, wet bulb temperature, absolute humidity, mixing ratio, partial vapour pressure.

Acoustic alarm with internal buzzer. Configuration via HD35-AP-S software or front keyboard. Powered by the internal battery. Wall mount removable (by using the included support) or fixed (with optional flanges) installation.

Specifications:

Humidity

Sensor:	Capacitive
Measuring ranges:	0 ... 100 % RH
Resolution:	0.1 % RH
Accuracy (@ 23 °C):	±1.8 % RH (0 ... 80 % RH) ±[1.8 + 0.11 * (RH - 80)] % RH (remaining range)

Sensor

Working temperature:	-40 ... +105 °C (RH max=[100 ² *(T-80)] @ T= 80 ... 105 °C)
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Temperature

Sensor:	Sensor integrated in humidity module
Measuring ranges:	-40 ... +105 °C
Resolution:	0.1 °C
Accuracy:	±0.2 °C in the range 0 ... +60 °C ±(0.2 - 0.05 * T) °C in the range T=-40 ... 0 °C ±[0.2 + 0.032 * (T-60)] °C in the range T=60 ... 105 °C

Carbon dioxide (CO₂)

Sensor:	Non-dispersive infrared rays (NDIR)
Measuring ranges:	0 ... 5.000 ppm
Resolution:	1 ppm
Accuracy:	±(50 ppm + 3 % of measurement) @ 20 °C and 1013 hPa
Working temperature:	-5 ... +50 °C
Response time:	T ₉₀ < 120 s (air speed= 2 m/s)

Instrument

Transmission frequency:	868 MHz
Transmission range:	300 m (E, J) / 180 m (U) in open field (can be reduced in presence of obstacles or adverse atmospheric conditions)
Logging interval:	10, 15, 30 s / 1, 2, 5, 10, 15, 30, 60 min
Power supply:	Non rechargeable lithium thionil chloride (Li-SOCl ₂) internal battery, 3.6 V, AA format, 2-pole Molex 5264 connector
Battery life:	1.5 years typical (without repeaters, measurement and log interval 2 min)
Operating conditions:	-10 ... +70 °C / 0 ... 85 % RH non condensing
Dimensions:	135 x 126 x 33 mm (H x W x D)
Housing:	LURAN® S 777K
Scope of supply:	Device, battery HD35-BAT1, wall mount support HD35-03; For configuration a basic unit HD35-AP-... (see page 156/157) is required.

WIRELESS DATA LOGGER WITH 3 TERMINAL HEADER INPUTS



HD35ED-G-H-E

Art. no. 609837

Wireless data logger with three terminal header inputs for standard sensors, with display

General:

Wireless data logger with three terminal header inputs for the connection of transmitters with 4 ... 20 mA, 0 ... 1 V or 0 ... 50 mV output, Pt100/Pt1000 sensors, K, J, T, N, E thermocouples, sensors with voltage free contact output (max. one sensor) and potentiometric sensors. It stores the measures in its internal memory (from 36,000 to 68,000 samples depending on the number and type of connected sensors) and transmits the logged data to the base unit automatically at regular intervals or upon request. Acoustic alarm with internal buzzer. Configuration via HD35-AP-S software. Powered by the internal battery. Wall mount removable (by using the included support) or fixed (with optional flanges) installation.

Connection:

The model HD35ED-G-H-E is equipped with three terminal header inputs. Each input can be configured as input for: Pt100/Pt1000, thermocouple, 4 ... 20 mA (the shunt resistance is internal), 0 ... 1 V, 0 ... 50 mV or potentiometer. Only input 3 can also be configured as pulse counter (counting of switchings of a voltage-free contact).

Specifications:

Pt100/Pt1000

Measuring ranges:	-200 ... +650 °C
Resolution:	0.1 °C
Accuracy:	±0.1 °C (excluding probe error)
Connection:	2, 3 or 4 wires

Thermocouple

Measuring ranges:	K: -200 ... +1370 °C J: -100 ... +750 °C E: -200 ... +750 °C T: -200 ... +400 °C N: -200 ... +1.300 °C
Resolution:	0.1 °C
Accuracy:	±0.1 ~0.2 °C (excluding probe error)

Input 0/4 ... 20 mA

Shunt resistance:	Internal (50 Ω)
Resolution:	16 bit
Accuracy:	±2 µA

Input 0 ... 50 mV / 1 V

Input resistance:	100 MΩ
Resolution:	16 bit
Accuracy:	±0.01 % f.s.

Voltage-free contact

Switching frequency:	50 Hz max.
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Potentiometer

Value, Resolution:	Typical 10 kΩ, 16 bit
Accuracy:	±0.01 % f.s.

Instrument

Transmission frequency:	868 MHz
Transmission range:	300 m (E, J) / 180 m (U) in open field (can be reduced in presence of obstacles or adverse atmospheric conditions)
Logging interval:	5, 10, 15, 30 s / 1, 2, 5, 10, 15, 30, 60 min
Power supply:	Non rechargeable lithium thionil chloride (Li-SOCl ₂) internal battery, 3.6 V, AA format, 2-pole Molex 5264 connector
Battery life:	2 years typ. (without repeaters, measurement interval 10 s and log interval 30 s)
Operating conditions:	-10 ... +70 °C / 0 ... 85 % RH non condensing
Dimensions:	135 x 110 x 33 mm (H x W x D)
Housing:	LURAN® S 777K
Scope of supply:	Device, battery HD35-BAT1, wall mount support HD35-03; For configuration a basic unit HD35-AP-... (see page 156/157) is required.