HUMIDITY AND TEMPERATURE DATA LOGGERS

COMPACT, DEPENDABLE AND INEXPENSIVE.

- Measurement accuracy of ±3.0 %RH and ±0.3 °C
- Compact design with a high IP protection
- Large storage capacity: 32,000 data point memory
- Programmable start and stop time with the HW4 software
- MIN/MAX/AVG statistical function
- Includes HW4-lite programming and analysis software
- Clear LCD with visual alerts
- Appropriately long battery life (up to 3 years)
- FDA 21 CFR Part 11 / GAMP 5 conform software HW4

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TECHNICAL INFORMATION

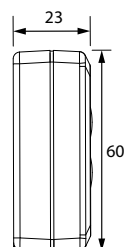**Dimensions / Ports**

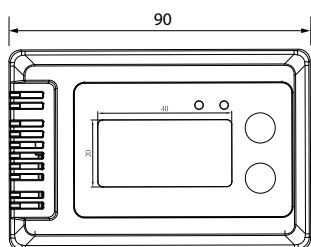**Type HL-1D**

Type TL-1D

USB-Mini port
(settings and data
download)

Battery compartment

90

23

60

Data Logging

The values stored in the HL-1D or the TL-1D are available for download with the HW4 software. After downloading the saved data, a graphical display of the values is possible. Via the HW4 software, the logging interval, logging mode, alarms and other such functions can be setup or enabled.

Log-Interval	Storage capacity reached after
30 sec	11 days 2 hours
5 min	111 days
30 min	1 year 301 days
45 min	2 years 270 days
60 min	›3 years

General Specifications (only for V2.0)	
Parameters	HL-1D: Humidity and temperature TL-1D: Temperature
Temperature sensor	NTC
Humidity sensor	HL-1D: ROTRONIC HYGROMER® IN-1 TL-1D: --
Accuracy at 23 °C ±5 °C	HL-1D: ±3.0 %RH / ±0.3 °C TL-1D: ±0.3 °C
Range of application	-20...70 °C / 0...100 %RH
IP rating	IP67
Weight	85 g
Dimensions	90 x 60 x 23 mm
Logging interval	30 s...24 h
Battery	1 x CR2
Battery life	3 years (at a logging interval of 1 h)
Battery charge indicator	Yes (HW4 software, display and LED indicator)
Storage capacity	HL-1D: 32,000 data point memory (RH & T) TL-1D: 32,000 data point memory (T)
Function	MIN/MAX/AVG statistical data
Display	LCD, 2 lines, 1 decimal resolution
Display refresh rate	5 sec. (Standard) (when logging same refresh rate as log interval)
LED indicator	2 LEDs Right LED flashes green during data logging Left LED flashes red when alarm limits breached or low battery
Communication	USB-Mini port
Adjustment	Humidity 1-point
FDA/GMP compatibility	FDA 21 CFR Part 11 / GAMP 5 conform software HW4
Software	HW4 V3.4.1 or later
Accessory	
USB-Mini cable	AC0003

Included	- CR2 Battery - Short instruction manual - Function and calibration certificate - HW4-lite software key code (software to be downloaded from www.rotronic.com)

If you require any futher information about these data loggers, please don't hesitate to contact us or visit our website **www.rotronic.com**, where you can find a complete, up to date overview of our data loggers and other products.

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