HUMIDITY, TEMPERATURE, PRESSURE AND DEW POINT DATA LOGGERS



COMPACT, PRECISE AND INEXPENSIVE

- 3 types available:
  BL-1D: hPa, °Cdp, %RH, °C
  HL-1D: %RH, °C
  TL-1D: °C
- High measurement accuracy of ±3.0 %RH, ±0.3 °C, ±3 hPa
- Compact with high level of IP protection
- High storage capacity: 32,000 lines
- Programmable start and stop times via HW4 software
- Free evaluation and configuration software HW4-lite
- FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software
- EN 12830 certified (BL-1D)

Type BL-1D



Type HL-1D



Type TL-1D



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MEASUREMENT SOLUTIONS

TECHNICAL INFORMATION

From Device Version V3.0

	BL-1D	HL-1D	TL-1D
Humidity	x	x	
Temperature	x	x	x
Pressure	x		
Dew point	x		
Storage capacity (lines)	32,000		

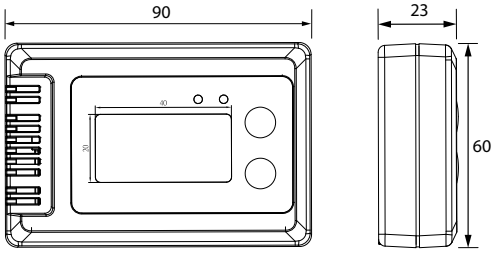
Humidity Measurement	
Measurement method	ROTRONIC HygroMer ®IN-1
Accuracy 23 °C ±5 °C	±3.0 %RH
Resolution	0.1 %RH
Measurement range	0...100 %RH (non-condensing)
Temperature	
Measurement method	NTC
Accuracy 23 °C ±5 °C	±0.3 °C
Resolution	0.1 °C
Measurement range	-30...70°C
Pressure	
Measurement method	Bosch BMP280
Accuracy 23 °C ±5 °C	±3 hPa
Resolution	1 hPa
Measurement range	300...1100 hPa
Dew Point	
Measurement method	Calculation (from %RH and °C)
Calculation method	WMO standard

Logging 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

Delivery Package	• Battery, CR2 • Short instruction manual • Function and calibration certificate • HW4-lite key (software download at www.rotronic.com)

General Specifications	
Logging interval	30 s...24 h
Storage capacity	32,000 lines
Function	MIN / MAX / AVG
Display	LCD, 2 lines
Display refresh rate	5 sec. (standard) (in logging mode same as the logging interval)
LED indicators	2 LED's Right LED flashes green when logging data, left LED flashes red when limits reached or low battery
Communication	USB-Mini port
Software	HW4 V3.4.1 or later (BL-1D: V3.9 or later) included
Range of application	-30...70°C 0...100 %RH (non-condensing)
Battery	1 x CR2
Battery life	3 years (1 h logging interval, room temperature)
IP protection	IP67
Weight	85 g
Dimensions	90 x 60 x 23 mm
FDA/GMP compatibility	FDA 21 CFR Part 11 / GAMP 5-compliant HW4 software
Standards	EN 12830
Accessories	Mini USB cable AC0003 (contained in xL-1D-SET)

Dimensions



You need more information (special applications etc.)? You can find a complete, up-to-date overview of our data loggers on the Internet at www.rotronic.com.

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