

# HUMIDITY, TEMPERATURE, PRESSURE AND DEW POINT DATA LOGGERS

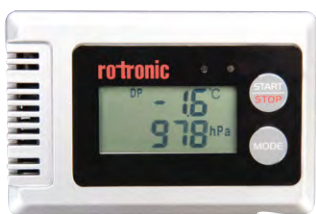


## COMPACT, PRECISE AND INEXPENSIVE

- 3 types available:
  - BL-1D: hPa, °Cdp, %RH, °C
  - HL-1D: %RH, °C
  - TL-1D: °C
- High measurement accuracy of  $\pm 3.0$  %RH,  $\pm 0.3$  °C,  $\pm 3$  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



Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.

# 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		

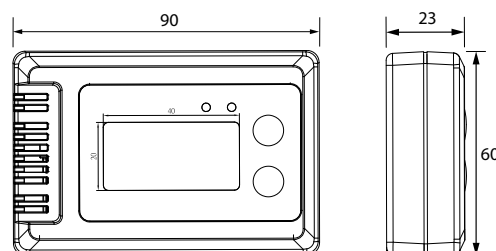
Humidity Measurement	
Measurement method	ROTRONIC HygroMer ®IN-1
Accuracy 23 °C ±5 °C	±3.0 %RH
Resolution	0.1 %RH
Measurement range	0...100 %RH (non-condensing)
Temperature	
Measurement method	NTC
Accuracy 23 °C ±5 °C	±0.3 °C
Resolution	0.1 °C
Measurement range	-30...70°C
Pressure	
Measurement method	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	
	<ul style="list-style-type: none"> <li>• Battery, CR2</li> <li>• Short instruction manual</li> <li>• Function and calibration certificate</li> <li>• HW4-lite key (software download at <a href="http://www.rotronic.com">www.rotronic.com</a>)</li> </ul>

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



Subject to technical change without notice. Printing and other errors reserved.

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.