Onset Computer Corporation

HOBO U23 Pro v2 2x External Temperature Data Logger - U23-003
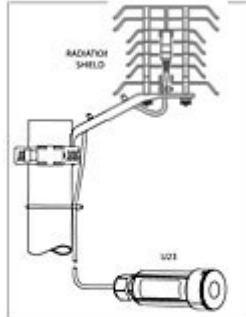
Measures:

Temperature

Features:

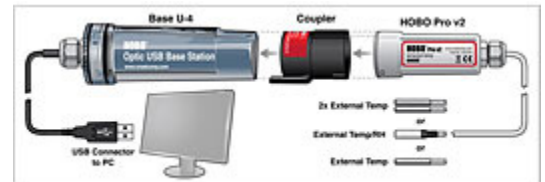| Qty	1-9	10-99	100+
$US	$170	$158	$145

Contact Onset at 1-800-564-4377

Sensor mounted in
solar radiation shield -
click to zoom

- Weatherproof housing for use in outdoor or condensing environments
- High accuracy
- Small-diameter external sensor versions for measurements in tight spaces
- Optic USB interface for fast and reliable download
- Compatible with HOBOware and HOBOware Pro software for logger setup, graphing and analysis

Description:

The HOBO Pro v2 2x External Temperature Data Logger is a weatherproof data logger with two external soil/water temperature probes on 6-foot cables for fast sensor response and deployment in tight spaces.

Features:

Optical Interface for data transfer - click to zoom

Detailed Specifications:

Temperature Sensor
Operation range Internal sensors: -40Â° to 70Â°C (-40Â° to 158Â°F)
U23-002 external temperature sensor: -40Â° to 70Â°C (-40Â° to 158Â°F)
U23-003 and U23-004 external sensors: -40Â° to 100Â°C (-40Â° to 212Â°F), with tip and cable immersion in fresh water up to 50Â°C (122Â°F) for one year

Accuracy: Â±0.21Â°C from 0Â° to 50Â°C (Â±0.38Â°F from 32Â° to 122Â°F); see Plot A
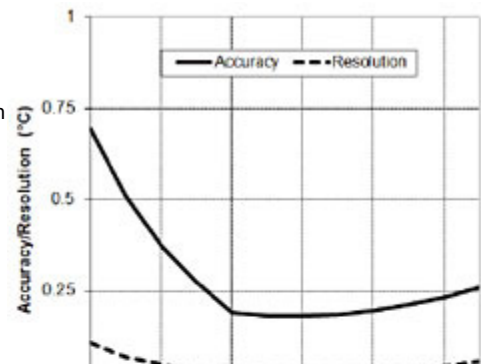Resolution: 0.02Â°C at 25Â°C (0.04Â°F at 77Â°F); see Plot A

Response time
(typical to 90%)
U23-001 Internal sensor: 40 minutes in air moving 1 m/sec
U23-002 external temperature sensor: 5 minutes in air moving 1 m/sec
U23-003 and U23-004 external sensors: 3 minutes in air moving 1 m/sec; 30 seconds in stirred water

Stability (drift): < 0.1Â°C (0.18Â°F) per year

Relative Humidity Sensor (U23-001, U23-002 only)
Operation range 0-100% RH, -40Â° to 70Â°C (-40Â° to 158Â°F) Exposure to conditions below -20Â°C (-4Â°F)
or above 95%
RH may temporarily increase the maximum RH sensor error by an additional 1%

Accuracy: Â±2.5% from 10% to 90% RH (typical), to a maximum of Â±3.5% including hysteresis. See Plot B for full range.

Resolution: 0.03%

Response time
(typical to 90%)
U23-001: 40 minute in air moving 1 m/sec with protective cap
U23-002: 5 minutes in air moving 1 m/sec with protective cap

Stability (drift) < 1% per year typical

Logger
Operation range -40Â° to 70Â°C (-40Â° to 158Â°F)
Real-time clock Â± 1 minute per month 0Â° to 50Â°C (32Â° to 122Â°F)
Battery 1/2 AA, 3.6 Volt lithium, user-replaceable (part # HP-B)

Battery life (typical use): 3 years with 1 minute or greater logging interval

Memory (non-volatile): 64K bytes memory (approx. 21,000 temperature and RH measurements)

Materials All models:
ASA styrene polymer housing and mounting clamp; polypropylene protective cap; Buna-N o-ring(s)
U23-001, U23-002 only: ASA styrene polymer RH sensor cap; modified hydrophobic polyethersulfone membrane

Cables:
U23-001: No cables
U23-002: One 184 cm (6 ft.) PVC cable; sensor diameter 1 cm (0.38 in.)
U23-003: Two 184 cm (6 ft.) PVC cables; sensor diameter 0.5 cm (0.20 in.)
U23-004: One 184 cm (6 ft.) PVC cable; sensor diameter 0.5 cm (0.20 in.)

Environmental rating: Electronics housing is NEMA 6P equivalent (tolerant of brief submergence)
Units with RH sensors are NEMA 4 equivalent (splash-resistant)

Launch modes: Immediate start; delayed start

Logging interval: Fixed-rate or multiple logging intervals, with up to 8 user-defined logging intervals and durations; logging intervals from 1 second to 18 hours (refer to HOBOware software manual)

Offload modes: Offload while logging; stop and offload

Battery indication: Battery voltage can be viewed in status screen and optionally logged in datafile. Low battery indication in datafile.

Weight:
U23-001: 57 g (1.5 oz)
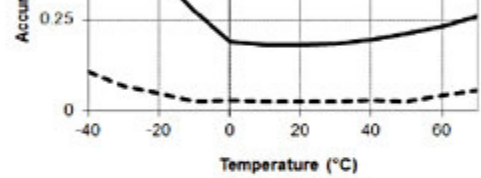U23-002: 118 g (3.1 oz)
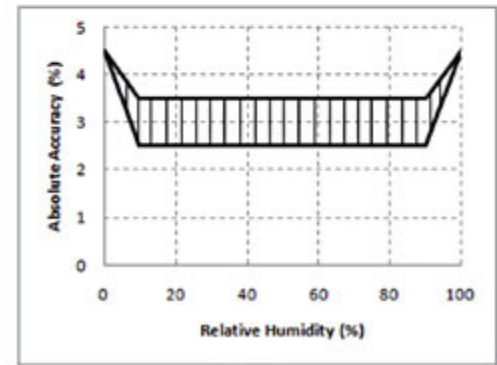U23-003: 138 g (3.7 oz)
U23-004: 102 g (2.7 oz)

Dimensions: Housing measures 10.2 Ã— 3.8 cm (4.0 Ã— 1.5 in.)

NIST certificate Temperature certificate available for additional charge

The CE Marking identifies this product as complying with the relevant directives in the European Union (EU).

Plot A

Plot B