

HOBO U12 Loggers External Sensors

- Sensors on this page can be plugged directly into the external input jacks of HOBO U12 Family loggers to expand the number of measurement options and applications.
- Accuracy specifications of external sensors reflect the combined performance of the logger and sensor.



TMCx-HD
Sensor diameter: 0.5 cm
(0.2 in) diameter
Cable lengths: 0.3,
1.8, 6.1, 15.2 m
(1, 6, 20, 50 ft)

Air/Water/Soil Temperature Sensors

Range: -40° to 100°C (-40° to 212°F) in air;
-40° to 50°C (-40° to 122°F) in water or soil;
Accuracy: ±0.25°@ 25°C (±0.45°@ 77°F)
Resolution: 0.03°@ 25°C (0.05°@ 77°F)
Response time: 3 minutes (to 90% in airflow 1 m/s); 1 minute in water
Note: Sensor tip and cable immersion in fresh water up to 50°C (122°F) for one year; radiation shield (RS3) recommended for use in sunlight



TMC6-HC
0.3 cm
diameter x 10.2 cm
(0.12 in x 4 in)
cable length: 1.8 m (6 ft)

Stainless Steel Temperature Probe

Range: -40° to 100°C (-40° to 212°F) in air or water (tip only)
Accuracy: ±0.25°@ 25°C (±0.45°@ 77°F)
Resolution: 0.03°@ 25°C (0.05°@ 77°F)
Response time: 3 minutes (to 90% in air moving 1 m/s); 15 seconds in stirred water

NIST-traceable temperature accuracy certificate available.



CABLE-4-20MA
45.7 cm (18 in) cable
with 8.9 cm (3.5 in)
tinned braided wire leads

4-20mA Cable

Range: 0 to 20.1 mA
Accuracy: ±0.02 mA, ±2.5% of reading
Resolution: 0.03% of full scale



CABLE-2.5-STEREO
1.8 m (6 ft) cable with 1.27 cm
(0.5 in) tinned braided wire leads

Voltage Input Cable

1.8 m (6 ft) cable with 1.27 cm (0.5 in) tinned braided wire lead
For voltage input specifications, refer to the external input specifications of the model you will be using.



CTV Sensors

CTV-x
Cable length: 1.8 m (6 ft)

AC Current

Ranges available (AC Amps): 0-20, 0-50, 0-100, 0-200, 0-600
Accuracy: ± 4.5% of full scale
Response time (from 10% to 90% of amplitude): CTV-A, approximately 440 milliseconds
CTV-B, approximately 200 milliseconds
CTV-C, approximately 100 milliseconds
CTV-D, approximately 450 milliseconds
CTV-E, approximately 490 milliseconds
Input current: AC current, sine wave, single phase 50 Hz or 60 Hz, load power factor 0.5 to 1.0 lead or lag
Voltage rating: 600 VAC UL listed
Operating range: 0° to 60°C (32° to 140°F) CTV-A, -B, -C
0° to 40°C (32° to 104°F) CTV-D, -E
Construction and operating environment: Molded plastic housing for indoor use per UL508. All units have opening leg that snaps into place. The leg on CTV-D and E-units is removable.

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AC Voltage

T-CON-ACT-xxx
11.4 x 7.3 x 3.25 cm
(4.49 x 2.87 x 1.28 in)
300 g (10.6 oz)

Self-powered transmitter for monitoring sine wave, single-phase 60Hz AC voltage. Requires 4-20mA Input Cable for use with HOBO U12 loggers (CABLE-4-20mA)

Two ranges: 90 to 150 or 180 to 300 volts RMS with 0.1% of span



Carbon Dioxide

TEL-7001
15.9 x 7.6 x 3.8 cm
(6.25 x 3 x 1.5 in)
304 g (10.7 oz)

Monitors and displays CO₂ and Temperature (CO₂ only recorded in U12) for Indoor Air Quality studies. Requires CO₂ cable for use with HOBO U12 loggers (CABLE-CO2 - cable length 8")

Measures 0 to 10,000 ppm CO₂ with 50 ppm or $\pm 5\%$ of reading outputs 0 to 2,500 ppm CO₂ to HOBO U12 loggers.

External Sensors & Cables Ordering Information

Air/Water/Soil Temperature Sensors

sensor with 0.3m (1ft) cable
sensor with 1.8m (6ft) cable
sensor with 6.1m (20ft) cable
sensor with 15.2m (50ft) cable

TMC1-HD
TMC6-HD
TMC20-HD
TMC50-HD

Stainless Steel Temp Probe
4-20mA cable
Voltage input cable

TMC6-HC
CABLE-4-20mA
CABLE-2.5-STEREO

Split-core AC Current Sensors

0-20 Amps AC
0-50 Amps AC
0-100 Amps AC
0-200 Amps AC
0-600 Amps AC

CTV-A
CTV-B
CTV-C
CTV-D
CTV-E

Telaire CO₂/Temp Monitor
CO₂ to logger cable

TEL-7001
CABLE-CO2

ConLab AC Voltage Transmitters

0 to 150 Volts AC
0 to 300 Volts AC

T-CON-ACT-150
T-CON-ACT-300

