

## Environmental Sensors

### Temperature & Humidity Sensors

#### Temperature, Humidity & Combination Sensor



- Temperature Sensor (ENVIROMUX-STHS)
  - Applications from 32° to 122°F (0° to 50°C).
  - Accurate to within ±0.9°F (±0.5°C).
- Humidity Sensor (ENVIROMUX-SHS)
  - 20% to 80% relative humidity, ±5%
    - ◆ For applications from 32° to 104°F (0° to 40°C)
- Temperature/Humidity Sensor (ENVIROMUX-STHS)
  - Applications from 32° to 122°F (0° to 50°C) and 20% to 80% relative humidity.
  - Accurate to within ±0.9°F (±0.5°C) and ±5% relative humidity.
- Temperature/Wide Range Humidity Sensor (ENVIROMUX-STHS-99)
  - Applications from 32° to 176°F (0° to 80°C)
  - Accurate to within ±2°F (±1°C)
    - ◆ 20% to 80% relative humidity, ±3%
    - ◆ 10% to 90% relative humidity, ±4%
    - ◆ 0% to 99% relative humidity, ±5%

#### Industrial Temperature/Humidity Sensor -40 to 185°F (-40 to 85°C)



- Applications from -40 to 185°F (-40 to 85°C) and 20 to 80% relative humidity.
- Accurate to within ± 0.5°C (±0.9°F) and ±5% relative humidity at -4 to 185°F (-20 to 85°C).
- Available lengths for attached CAT5e cable: 10/25/50/100 feet.

#### ENVIROMUX-STHS-N4085IND-x

#### Industrial Temperature/Humidity Sensor, 32 to 176°F (0 to 80°C)



- Applications from 32 to 176°F (0 to 80°C) and 20 to 80% relative humidity.
- Accurate to within ± 0.5°C (±0.9°F) and ±5% relative humidity at 0 to 176°F (0 to 80°C).

#### ENVIROMUX-STHS-080IND

- Supports CAT5/5e/6 cable up to 1,000 ft (305 m) (not included).
  - Compatible with NTI's Industrial CAT5e Shielded Super Flat Cables, CAT5E-SF-xx-SHLD-IND
    - ◆ Available lengths: 3/5/7/10/25/50 feet.

#### Low-Cost Precision Temperature & Combination Sensor



- Temperature Sensor (ENVIROMUX-STHS-PRC)
  - Applications from 32 to 140°F (0 to 60°C).
  - Accurate to within ±0.2°F (±0.1°C).
- Temperature/Humidity Sensor (ENVIROMUX-STHS-PRC)
  - Applications from 32 to 140°F (0 to 60°C) and 10 to 80% relative humidity.
  - Accurate to within ±0.4°F (±0.2°C) and ±1.8% relative humidity.

#### ENVIROMUX-STHS-PRC ENVIROMUX-STHS-PRC

#### Low-Cost Industrial Precision Temperature/Humidity Sensor



- Applications from -40 to 185°F (-40 to 85°C) and 10 to 80% relative humidity.
- Accurate to within ±0.4°F (±0.2°C) and ±1.8% relative humidity.
- Available lengths for attached CAT5e cable: 10/25/50/100 feet.

#### ENVIROMUX-STHS-PRCIND-x

#### Precision Humidity & Temperature/Humidity Sensor



- NIST traceable calibration accurate to within ±1% from 10 to 80% relative humidity at 77 to 95°F (25 to 35°C).
- Available temperature ranges:
  - ENVIROMUX-STHS-PLT-120: 20 to 120°F (-6 to 48°C).
  - ENVIROMUX-STHS-PLT-140: -20 to 140°F (-28 to 60°C).
  - ENVIROMUX-STHS-PLT-180: 30 to 180°F (-1 to 82°C).
- Accuracy:
  - ENVIROMUX-STHS-PLT-120: ±1.5°F (±0.9°C)
  - ENVIROMUX-STHS-PLT-140: ±2.4°F (±1.4°C)
  - ENVIROMUX-STHS-PLT-180: ±2.3°F (±1.3°C)
- Sensing element: 1000 W platinum; 2 lead resistance thermometer, .00385 TCR.
- Two-point field calibration.
- Output: 4-20 mA DC = 0 to 100% RH.
- Requires the ENVIROMUX-S420MA-24V to operate.

#### ENVIROMUX-SHS-PLT ENVIROMUX-STHS-PLT-x

#### Pipe Temperature Sensor



- Mount to the outside of a thin walled steel, copper, or aluminum pipe (up to 1/4" wall).
- Copper contact transmits surface temperature to thermal sensor.
- Weatherproof enclosure designed to IP67 specifications.
- Applications from -40° to 185°F (-40° to 85°C).
- Accurate to within ±1.0°F (±0.5°C).
- Response time: <1 minute for temperature changes of ±2°F.
- Available lengths for attached CAT5e cable: 1/10/50/100/200/400/600/800/1000 feet.

#### ENVIROMUX-STSP-xx

#### Wall and Duct Mount Temperature/Humidity Sensors



- Wall Mount ENVIROMUX-STHS-WLM: Applications from 23 to 131°F (-5 to 55°C)
- Duct Mount ENVIROMUX-STHS-DCT: Applications from 14 to 140°F (-10 to 60°C)
- Temperature accurate to within ±0.54°F (±0.3°C)
- Relative Humidity accurate to better than ±3% from 10 to 90% relative humidity at 68°F (20°C).
- Requires the ENVIROMUX-S420MA-24V to operate.

#### ENVIROMUX-STHS-WLM ENVIROMUX-STHS-DCT

### Environmental Sensors

#### RTD Temperature Transmitters & Sensors

##### High-Accuracy Platinum RTD Transmitter, -328° to 1562°F



- Temperature range: -328 to 1562°F (-200 to 850°C)
- Accurate to within  $\pm 0.2^\circ\text{F}$  ( $\pm 0.1^\circ\text{C}$ )
- Configuration: 2, 3, or 4-wire connection
- Signal Output: RS485
- Requires an RTD sensor probe to operate with the ENVIROMUX-2D/5D/16D.

##### ENVIROMUX-RTDT-1562

##### Mini Probe 100 Ohm RTD Sensor, -67°F to 240°F



- 0.19" (4.8 mm) round x 0.50" (13 mm) long stainless steel housing.
- Applications from -67 to 240°F (-55 to 115°C).
- Accurate to within  $\pm 0.27^\circ\text{F}$  ( $\pm 0.15^\circ\text{C}$ ).
- 100 Ohm Pt 385 curve.

##### ENVIROMUX-RTDS-MP240

- Requires the ENVIROMUX-RTDT-140/240 and ENVIROMUX-S420MA-24V to operate with the ENVIROMUX-2D/5D/16D.

##### All-Purpose 100 Ohm RTD Sensor, -67°F to 221°F



- Rugged, point-sensitive waterproof sensor with 9" (229 mm) 304 stainless steel probe and brass fitting.
  - Brass fitting with 1/2" NPT male thread.
- Applications from -67 to 221°F (-55 to 105°C).
- Accurate to within  $\pm 0.27^\circ\text{F}$  ( $\pm 0.15^\circ\text{C}$ ).

##### ENVIROMUX-RTDS-A221

- 100 Ohm Pt 385 curve.
- Requires the ENVIROMUX-RTDT-140/240 and ENVIROMUX-S420MA-24V to operate with the ENVIROMUX-2D/5D/16D.

##### Encapsulated 100 Ohm RTD Sensor, 35°F to 140°F



- 0.17" round, 0.50" long housing.
- Applications from 35°F to 140°F (2°C to 60°C).
- Accurate to within  $\pm 0.6^\circ\text{F}$  ( $\pm 0.33^\circ\text{C}$ ).
- 100 Ohm Pt 385 curve.
- 8 feet, 24 AWG 2-wire leads

##### ENVIROMUX-RTDS-E140

- Requires the ENVIROMUX-RTDT-140/240 and ENVIROMUX-S420MA-24V to operate with the ENVIROMUX-2D/5D/16D.

##### Rugged Encapsulated 100 Ohm RTD Sensor, -30°F to 230°F



- 0.18" round, 0.50" long housing.
- Applications from -30°F to 230°F (-34°C to 110°C).
- Accurate to within  $\pm 0.6^\circ\text{F}$  ( $\pm 0.33^\circ\text{C}$ ).
- 100 Ohm Pt 385 curve.
- 8 feet, 24 AWG 2-wire leads

##### ENVIROMUX-RTDS-ER230

- Requires the ENVIROMUX-RTDT-140/240 and ENVIROMUX-S420MA-24V to operate with the ENVIROMUX-2D/5D/16D.

##### 100 Ohm Platinum RTD Transmitter



##### ENVIROMUX-RTDT-140 ENVIROMUX-RTDT-240

- Available temperature ranges:
  - ENVIROMUX-RTDT-140: -20 to 140°F (-28 to 60°C).
  - ENVIROMUX-RTDT-240: 30 to 240°F (-1 to 115°C).
- Accurate to within  $\pm 0.8^\circ\text{F}$  ( $\pm 0.45^\circ\text{C}$ ).
- Configuration: 2-wire connection
- Sensor Element: 100Ω platinum
- Signal Output: 4-20 mA, loop-powered
- Requires the ENVIROMUX-S420MA and an RTD sensor probe to operate with the ENVIROMUX-2D/5D/16D.

##### Duct 100 Ohm RTD Sensor, -67°F to 240°F



##### ENVIROMUX-RTDS-D240

- Rugged, waterproof sensor with 9" (229 mm) 304 stainless steel probe with 4" (102 mm) electrical strap and a nylon fitting.
  - Nylon fitting with 1/2" NPT female thread.
- Applications from -67 to 240°F (-55 to 115°C).
- Accurate to within  $\pm 0.27^\circ\text{F}$  ( $\pm 0.15^\circ\text{C}$ ).
- 100 Ohm Pt 385 curve.
- Requires the ENVIROMUX-RTDT-140/240 and ENVIROMUX-S420MA-24V to operate with the ENVIROMUX-2D/5D/16D.

##### All-Purpose 100 Ohm RTD Sensor, -58 to 392°F



##### ENVIROMUX-RTDS-A572

- Rugged, point-sensitive waterproof sensor with 0.25" (6.35 mm) round and 6" (152 mm) long stainless steel probe.
- Applications from -58 to 392°F (-50 to 200°C).
- Accurate to within  $\pm 1^\circ\text{F}$  ( $\pm 0.55^\circ\text{C}$ ).
- 100 Ohm Pt 385 curve.
- Includes 15 ft (4.6 m) extension wire.
- 6 ft (1.83 m) 3-wire lead with 13" (330 mm) lead wires and 1/3" (8 mm) stripped ends.
  - One white, two red.
- Requires the ENVIROMUX-RTDT-1562 to operate with the ENVIROMUX-2D/5D/16D.

### Environmental Sensors

#### Liquid & Chemical Detection Sensors

##### Low-Cost Liquid Detection Sensor, Rope-Style



**ENVIROMUX-LD-LCx-y**

- Detects any conductive liquid or moisture.
- Available water sensor cable (x) lengths: 1/10/50/100/200/400/600 feet.
  - Material: PVC twisted pair with stainless 316 elements
  - Diameter: 0.14" (3.5 mm)
- Available 2-wire cable (y) lengths: 5/10/20/50/100 feet.

##### Liquid Detection Sensor, Plenum Rope-Style



**ENVIROMUX-LDx-y**

- Detects any conductive liquid or moisture.
- Puddle: 0.6" (15 mm) diameter.
- Detects liquid depth >0.1" (2.5 mm).
- Available water sensor cable (x) lengths: 1/10/50/100/200/400/600/800/1000 feet.
  - Plenum rating: CL2P (UL)
  - Diameter: 0.25 in (6.35mm)
- Available 2-wire plenum cable (y) lengths: 5/10/20/50/100 feet.

##### Chemical Detection Sensor



**ENVIROMUX-CDx-y**

- For detecting the presence of chemical liquid.
  - Reliably senses acids, bases, and other conductive liquids.
- Detects liquid depth >0.1" (2.5 mm).
- Minimum puddle: 0.6" (15 mm) diameter.
- Available chemical sensor cable (x) lengths: 1/10/50/100 feet.
- Available 2-wire cable (y) lengths: 5/10/20/50/100 feet.

##### Under Carpet Leak Detector



**ENVIROMUX-UCLD-x**

- Use to detect conductive fluids and moisture under carpets.
- Available 2-wire plenum cable lengths: 10/25/50/100/200/400/600/1000 feet.

##### Tape-Style Liquid Detector



**ENVIROMUX-TLD-x**

- Uses a self-adhesive sensor tape with copper fiber electrodes and a durable netted cover for dependable detection of conductive liquids.
- Continuous tape integrity self-check.
- Floor or under-pipe mounting.
- Available tape sensor lengths: 10/25/50/100 feet.

##### Compact-Size Spot Liquid Detector, Point Leak Detection Sensor



**ENVIROMUX-SLDO-14**

- Use to detect fluids in confined areas.
- One generic relay output
- Adjustable detection level.
  - Probe height adjustable 0" to 0.75" (0 to 19mm)
- Cable length: 14 feet

##### Spot Liquid Detector, Point Leak Detection Sensor



**ENVIROMUX-LD-SPDT**

- Features gold-plated probes and microchip technology for dependable detection of conductive liquids.
- Adjustable detection level.
  - Probe height adjustable 0" to 1.5" (0 to 38mm)

##### Spot Liquid Detector with Built-In Visual & Audible Alarm



**ENVIROMUX-SLDO-A**

- Use to detect conductive fluids in confined areas
- Audible alarm signal – continuously on
- 8 red LEDs for visual alarm signal – continuously on
- Cable length: 4.8 feet

##### Ultrasonic Level Transmitter



**ENVIROMUX-ULT**

- Compact sensor with 2" (51 mm) dead band and beam width optimized for small tanks 49" (1,245 mm) or less.
- Provides two-wire 4-20 mA analog output.
- Includes Fob USB interface tool for configuring the transmitter.
- Requires the ENVIROMUX-S420MA-24V to operate with ENVIROMUX-2D/5D/16D.



## Environmental Sensors

### Smoke Detection Sensor

#### Smoke Detection Sensor – 120VAC Wire-In with Battery Backup



ENVIROMUX-SDS-120V

- Ionization smoke detector.
- Applications from 40°F to 100°F (4°C to 38°C).
- Front loading battery door.
- One button design for easy testing and HUSH mode activation control.
- Voltage supply: 120VAC.
- Audio alarm: 85dB at 10ft.
- Links with up to 24 devices.
- Use compatible relay (ENVIROMUX-RLY-SDS120V) for connection to the ENVIROMUX system.
- Contact ratings: 10A at 120VAC, 5A at 30VDC.

#### Smoke Detection Sensor – UL Approved



ENVIROMUX-SDS

- Photoelectric smoke detector.
- Smoke sensitivity: 0.98-2.4%/ft.
- Built-in 135° F (57° C) thermal heat sensor.
- Operating temperature: 14 to 122°F (-10 to 50°C).

#### Smoke Detection Sensor – CE Approved



ENVIROMUX-SDS-CE

- Photoelectric smoke detector.
- Smoke sensitivity: 0.08-0.14 dB/m.
- Applications from 32 to 122°F (0 to 50°C).
- Operating temperature: 14 to 122°F (-10 to 50°C).

#### Smoke Detection Sensor – UL Approved, TAA Compliant



ENVIROMUX-SDS-TAA

- Photoelectric smoke detector.
- Smoke sensitivity: 0.98-2.4%/ft.
- Built-in 135° F (57° C) thermal heat sensor.
- Voltage supply: 8-35VDC.

### Gas Detector/Sensors

#### Gas Detector – Methane, Butane, Propane



ENVIROMUX-GD-MBP

- Use to detect leaks of combustible gas (methane, propane, butane, acetylene, etc.)
- Continuous air monitoring.
- Audible alarm signal: 94 dB at 1 foot.
- Relay specifications: level selectable, normally open or normally closed, 250V AC, max 5A.

#### Carbon Dioxide Sensor, CO2



ENVIROMUX-CO2

- Measures CO2 in a range of 0 to 2,000 ppm.
- 0 to 5 VDC output.
- Continuous automatic air pressure compensation.
- Requires the ENVIROMUX-S5VDC sensor converter to operate.

#### Carbon Monoxide Detector, CO



ENVIROMUX-CMD

- Continuous air monitoring.
- Pre-set alarm points alert at:
  - 70 ppm after 60 to 240 minutes
  - 150 ppm after 10 to 50 minutes
  - 400 ppm after 4 to 15 minutes

### Air Flow/Velocity Sensors

#### Air Flow Sensor



ENVIROMUX-AFM

- Reacts to any condition causing insufficient flow of air.
- Switch contact is closed when air flow is >8.2 ft/s.
- Connection: 2x single strand AWG26, length 18 in.

#### Air Velocity Sensor



ENVIROMUX-AV  
w/Converter  
ENVIROMUX-S5VDC

- Measures air velocity.
- Flow range: 0-2000 ft/min (0-10 m/s).
- Accuracy: ±5% of measuring value at 68°F (20°C).
- Requires the ENVIROMUX-S5VDC sensor converter to operate.

## Environmental Sensors

### Weather & Outdoor Sensors

#### Outdoor Temperature Sensor



**ENVIROMUX-STS-O**

- Applications from -40 to 185°F (-40 to 85°C).
- Accurate to within  $\pm 0.9^\circ\text{F}$  ( $\pm 0.5^\circ\text{C}$ ).
- Weatherproof enclosure.

#### Wind Direction Sensor



**ENVIROMUX-EWDS**

- Sensor range: full 360 degrees , zero deadband
- Accuracy:  $\pm 1.8$  degrees
- Resolution: 12 bit or 0.025 degrees
- Directional Vane approximately 8 inches (203 millimeters)
- 3 wire flying leads, 25-feet (7.6-meter)
- Requires the ENVIROMUX-S5VDC-5V to operate with ENVIROMUX-2D/5D/16D.

#### Wind Speed Sensor/Anemometer



**ENVIROMUX-WSS**

- Rugged anemometer
- 3-cup rotor pressed on a stainless steel shaft
- Reed switch and magnet providing one pulse per rotation
- Rotor diameter: 5 inches
- Speed range: ~ 3 mph to 125+ mph (~5 kph to over 200 kph)
- 100 feet of exterior grade wire

#### Barometric Pressure Transmitter



**ENVIROMUX-BPT**

- Use for determining atmospheric air pressure.
- Pressure range: 20.8 to 32 in Hg (10.2 to 15.7 psi)
- Accuracy:  $\pm 0.14$  Hg ( $\pm 0.07$  psi)
- Repeatability:  $\pm 0.03$  Hg ( $\pm 0.014$  psi)
- Pressure Hysteresis:  $\pm 0.02$  Hg ( $\pm 0.01$  psi)
- Long-Term Stability:  $\pm .014$  Hg/year ( $\pm 0.007$  psi/year)
- Requires the ENVIROMUX-S420MA-24V to operate with ENVIROMUX-2D/5D/16D.