SenSpot™ Humidity/Temperature

Ultra-Low Power Precision Sensing & Wireless Communication

Typical Applications

- Indoor and outdoor distributed monitoring (aircraft, buildings, bridges, machinery, etc.).

Benefits

- **Long lifetime:** (battery life of 10 years).

- **Wireless communication:** No wiring is required for data collection.

- **Lightweight,** about 155 gr (5.47 ounce).
  - Wireless Transmitter about 120 gr(4.23 ounce).
  - 90cm (3ft) cable 30 gr (1 ounce).
  - Humidity/Temperature sensor 5 gr (0.18 ounce).

- **Easy mounting:** Flange-mount or adhesive tape.
  - Self-adhesive, no drilling is required (smooth surfaces such as metal surface).
  - Flange-mount, drilling is required (uneven surfaces such as concrete).

- **Quick installation**, 1-2 minutes

- **Adjustable sampling interval:** From 12 seconds to 6 minutes.

- **Resolution:** 1 percent (relative humidity), 0.5 °C (Temperature).

- **Working temperature:** -40 to +150°F (-40 to +65°C).

- **Working humidity:** 0 to +100%

- **Communication range:** 300m (900ft) for reliable communication.

- **Small size:**
  - Wireless transmitter: 50mm (1.96") x 50mm (1.96") x 34mm (1.34").
  - Humidity/Temperature sensor: 109.2mm (4.30") x 33mm (1.30") x 6.35mm (0.25").

- **Power source:** Standard non-rechargeable CR123 battery.

- **Probe length:** standard 90cm (3ft). Customizable up to 200 ft.

Description

SenSpot™ is designed to operate maintenance-free for decades. SenSpot can operate for at least 10 years without battery replacement. Due to small size and lightweight design, the adhesive-mount SenSpot™ can be applied easily to as many critical spots on a structure as needed, with minimal installation effort.

SenSpot™ Humidity/Temperature has a measurement probe which can easily extend the data point to even inside and inaccessible area of a structure. The probes can be customized to be up to 200 feet long.

Installation and Dimensions

Humidity and Temperature SenSpot™ comes in either self-adhesive or flange-mount form factors. A general diagram of this unit is shown below.
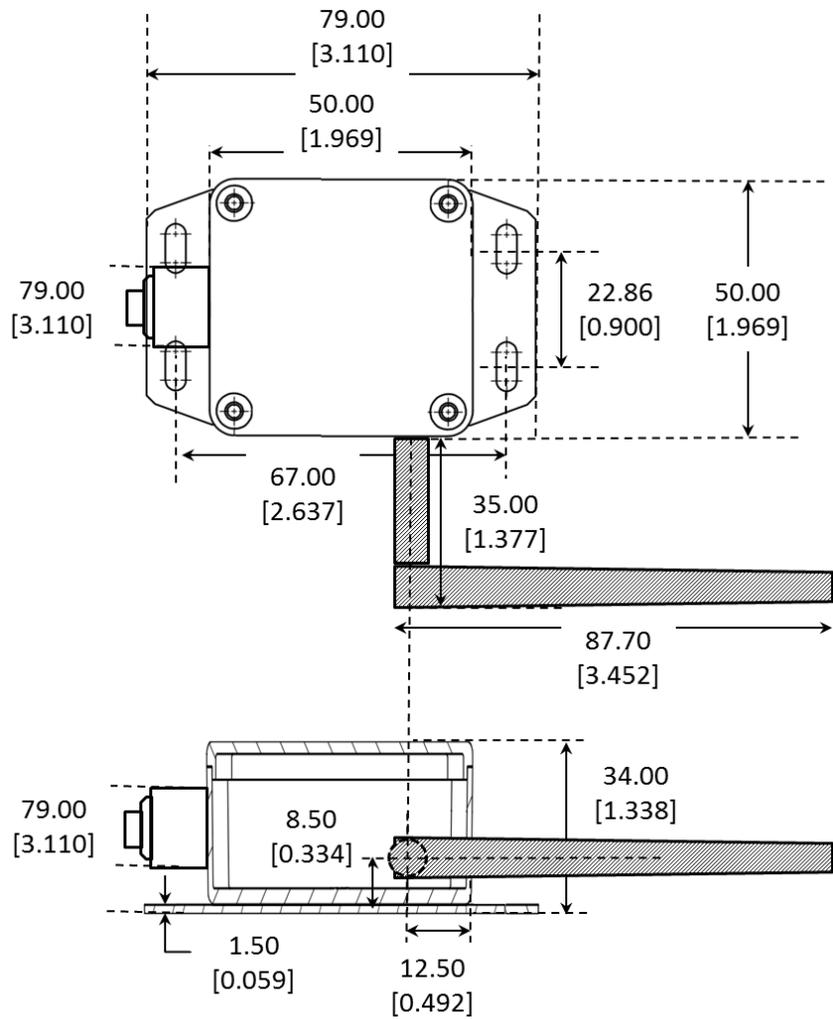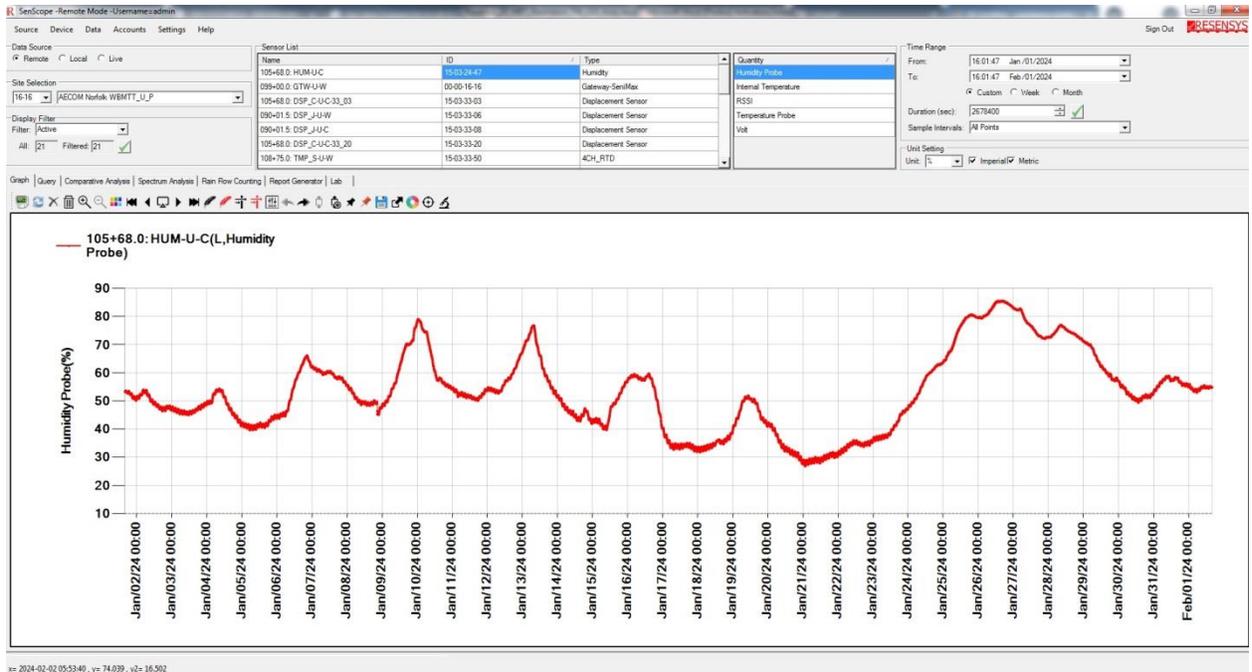
Figure 2: Humidity measurements of an installed wireless Humidity-Temperature SenSpot™

Figure 3: A Resensys wireless Humidity-Temperature SenSpot™ installed on a building inside a mining facility