

## (ENGINEERS) SUBMITTAL DATA

# In Duct Air Quality Measuring Station

with CD-150 Control Damper

## **Design/Application:**

The X-11 is an outdoor air measuring station with a low leakage, high performance, extruded aluminum, airfoil blade damper. The primary sensing elements are aerodynamic head devices which generate a differential (velocity) pressure output signal. The sensor's basis of design is a cylindrical tube within a cylindrical tube which permits the simultaneous measurement of both impact (total) and static pressure. The total and static sensing port design reduces the need for an air straightening device. Station is standard with an electric actuator and PTS-4000 transducer.

#### Performance:

**Velocity:** 150 to 2000 fpm (0.76 to 10.2 m/s)

Leakage: 6 cfm/sq. ft. @ 4 in. w.g. (110 cmh/sq. m. @ 1kPa)

3 cfm/sq. ft. @ 1 in. w.g. (55 cmh/sq. m. @ 0.25kPa)

In Air StreamTemperature Range: -20°F to 180°F (-29°C to 82°C) Out of Air StreamTemperature Range: 32°F to 120°F (0°C to 49°C)

**Transducer Accuracy:** +/- 0.80% combined accuracy. (with standard PTS-4000 transducer) (+/- 0.40% accuracy optional)

(with optional LP-1000-TZV transducer) +/- 1.00% combined accuracy. (+/- 0.50% accuracy optional)

#### **Features**

(when used for controlling outside air intake):

Requirements for Minimum Outside Air as follows:

- -ASHRAE 62.1, 90.1, & 189.1
- -California Title 24
- -International Mechanical Code (IMC)
- -International Energy Conservation Code (IECC)

#### LEED for NC & EB prerequisites and credits:

- -IEQ prerequisite 1 (Minimum Indoor Air Quality Performance)
- -IEQ credit 1.2 (Outdoor Air Delivering Monitors)
- -IEQ credit 1.3 (Increased Ventilation)

### Standard Construction:

Sleeve: 18 ga galvanized steel

Damper Frame: 4.50" (114mm) Deep, .081 (2.06mm) Extruded Aluminum (6063-T5)

Blade: Hollow Airfoil with 0.375" (9.53mm) thick end nose

(6063-T5) Extruded Aluminum Extended shaft: 1/2" (12.7mm) diameter

Bearing: Bronze Oilite

Linkage: Concealed in frame Pivot axles: Zinc with Thrust Bushings

Blade seals: Removable EPDM 250° F (121°C) Jamb seals: Stainless Steel Compression

Blade action: Opposed

Flow Sensor: 6063-T5 Anodized Aluminum

Transducer: PTS-4000 (standard)

(for options and ordering information see page O-5)

### Options:

☐ Silicone Jamb Seal

☐ Insulated Blades

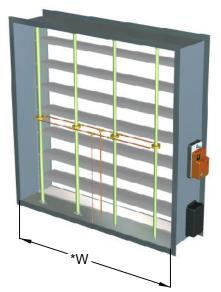
☐ Inlet Bell (18 ga galvanized)

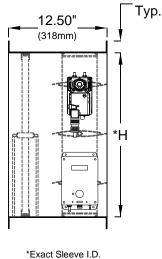
□ LP-1000-TZV Transducer

☐ \*Air Straightener: Honeycomb with extended sleeve 1/2" honeycomb cells, 3" deep, aluminum alloy

\*Only required if turbulent air flow (high disturbance) is present (Increases sleeve depth by 4")

(for options and ordering information see page O-6)





1.50"

Shown with optional LP-1000-TZV Transducer

Minimum Size: 8"w x 8"h (203mm x203mm) Maximum Single Section Damper Size: 60"w x 72"h

(1524mm x 1829mm)

Unlimited Air Measuring Station Assemblies (Widths & Heights)

Due to continuing research, United Enertech reserves the right to change specifications without notice.

### ☐ Model X-11

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with CD-150 Control Damper

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