

## DPT-IQ FLOW METER WITH BACKLIT LCD FLOW AND PRESSURE DISPLAY

### APPLICATION

The DPT-IQ measures and displays airflow, velocity and differential pressure. It is designed to be used in combination with any Ruskin velocity pressure air measuring probe (AMP series), air measuring louver (AML series) or air measuring station (AMS series and CDRAMS) product. All models come with a backlit display and manual pushbutton auto-zero features. The Output Ranges are field selectable (0 to 10 V or 4 to 20 mA). The unit installs quickly by connecting standard 1/8" I.D. tubing to the two pressure ports.

### STANDARD CONSTRUCTION

#### ENCLOSURE

Dimensions: 3.54" x 3.74" x 1.4" (90 x 95 x 36) NEMA3.  
Case: ABS (UL 94 V-0 Approved)  
Hinged Lid: PC (UL 94 V-1 Approved)

#### PRESSURE PORT FITTINGS:

Barbed Brass accepts 1/8" or 5/32" I.D. Tubing

#### SENSOR

Piezoresistive

#### LCD DISPLAY

3 1/2 Digit LCD Backlit 2-Line Display (12 character/line)

#### FIELD SELECTABLE OUTPUT RANGES

Output: 0-5V, 0-10V, selectable via jumper and menu  
Output: 4-20 mA, selectable via jumper and menu

#### POWER REQUIREMENTS

24VAC or VDC, ±10%

#### POWER CONSUMPTION

< 1.0 W with voltage output  
< 1.5 W with current output

#### FIELD SELECTABLE RANGES (INCHES WATER COLUMN)

Unidirectional: 0-0.4" through 0-4.0"

#### ACCURACY (AT APPLIED PRESSURE):

Ranges < 0.5 inWC = ±0.01 inWC  
Ranges ≥ 0.5 inWC = ±1.5% inWC  
Accuracy specifications include: general accuracy, temperature drift, linearity, hysteresis, long term stability, and repetition error

#### AUTO-ZERO FUNCTION

Manual pushbutton Auto-Zero

#### RESPONSE TIME:

1.0 – 20 sec, selectable via menu

#### TEMPERATURE LIMITS

Storage: -4°F to 158°F (-20°C to 70°C)  
Operational: 14°F to 122°F (-10°C to 50°C)  
Compensated: Full Spectrum of capability

#### OPERATING RH RANGE

0 to 95% RH, non condensing

#### NOTES:

1. Values in parentheses ( ) are millimeters unless otherwise indicated.
2. Refer to installation manual for additional details.



Conformance meets the requirements for CE marking:  
EMC directive 2004/108/EY  
RoHS Directive 2002/95/EY



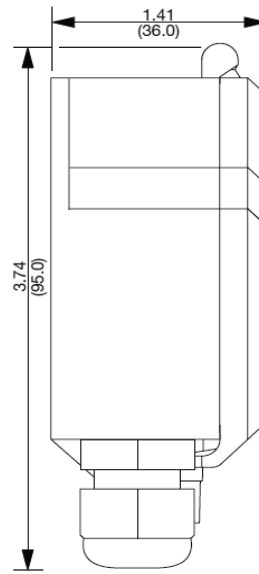
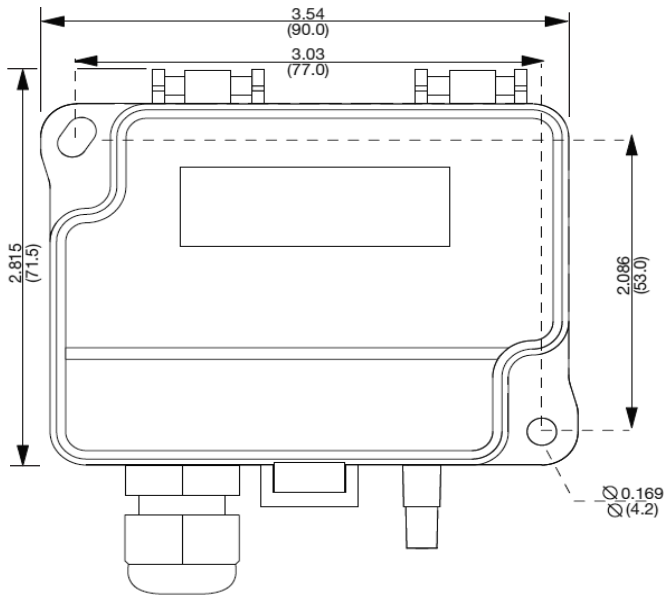
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Conforms to ANSI/UL Std 61010  
Certified to CAN/CSA Std C22.2 No 61010

### FEATURES

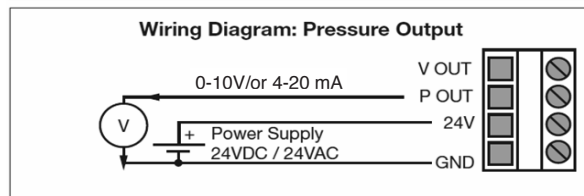
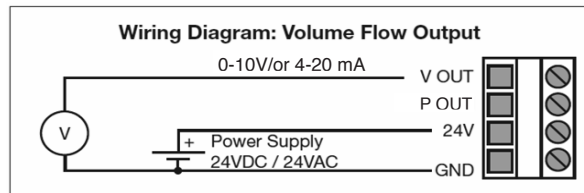
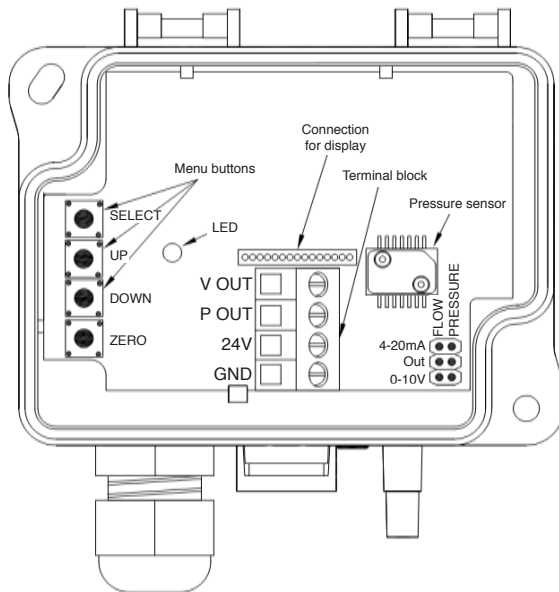
Measures Volume Flow, Velocity and Pressure  
Volume: m<sup>3</sup>/s, m<sup>3</sup>/hr, cfm, l/s  
Velocity: m/s, ft/min  
Pressure: Pa, kPa, mbar, inWC, mmWC

## DIMENSIONAL DATA



### MENU SELECT CHOICES

Ruskin Model  
 Response Time  
 Mode V or mA  
 Velocity Output Max  
 Pressure Output Max  
 Line 1 Units  
 Line 2 Units  
 Gain  
 Size



## SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or as in accordance with schedules, an air measuring station flow meter with integral backlit LCD display indicating actual flow, velocity and pressure, unit shall be field adjustable to display either I.P. or S.I. units. The flow meter shall be housed in a NEMA3 ABS housing with a polycarbonate hinged cover for access to all menu buttons and jumpers for field adjustment. Menu shall allow for field selection of 0-10 VDC or 4-20 mA output signal. Additionally, menu buttons shall accommodate field selection of Pressure ranges, Velocity ranges, Response time, Units, Gain and area. The flow meter shall have a pushbutton

auto-zero feature. The transducer assembly shall contain a piezoresistive pressure sensor to change resistance as a function of applied pressure. Sensor shall be paired with an application specific integrated circuit to digitally compensate for thermal sensitivity. Accuracy specifications of the transducer shall include: general accuracy, temperature drift, linearity, hysteresis, long term stability, and repetition error.

Transducer shall be, in all respects, equivalent to Ruskin Model DPT-IQ and shall be compatible with all Ruskin differential pressure air measuring probes and stations.



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