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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.

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

RoHS Compliant

U.S. GREEN BUILDING COUNCIL MEMBER

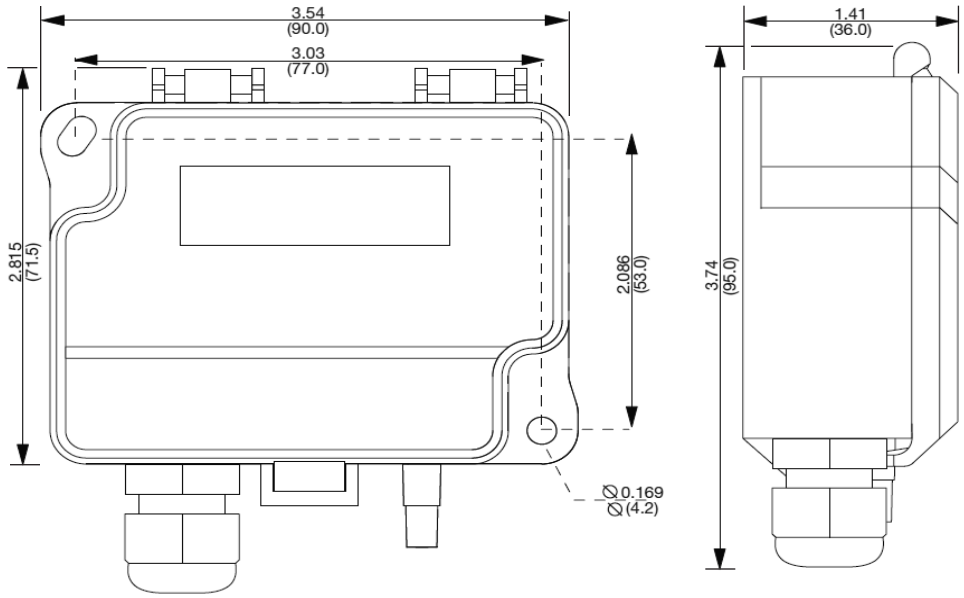
IAQA Corporate Member

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

FEATURES

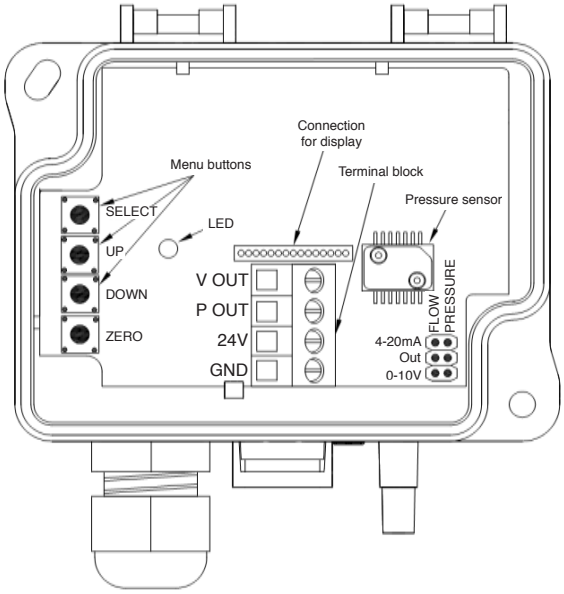
Measures Volume Flow, Velocity and Pressure
Volume: m3/s, m3/hr, cfm, l/s
Velocity: m/s, ft/min
Pressure: Pa, kPa, mbar, inWC, mmWC

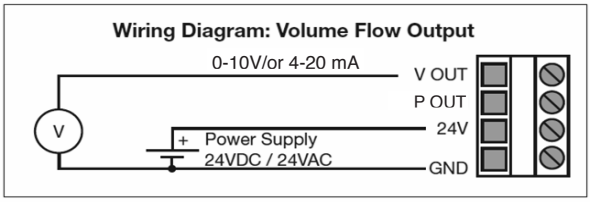
DIMENSIONAL DATA

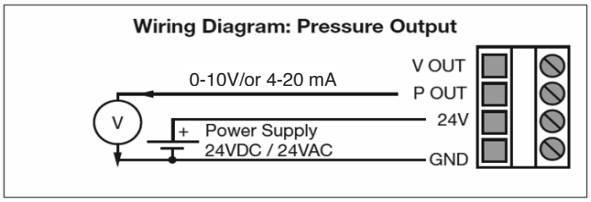


MENU SELECT CHOICES

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.

RUSKIN

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