

DART

LOW FLOW PROBE DISPLAYING AIRFLOW READING AND TEMPERATURE

APPLICATION

Ruskin DART was specifically engineered for low flow HVAC and VAV applications in small round and rectangular duct. The Dart display indicates velocity (fpm) and temperature (°F). The field selectable range and output options ensure you have the right solution every time.

STANDARD CONSTRUCTION

ENCLOSURE

3.38" x 2.50" x 1.4" (85.9 x 63.5 x 36), P54, NEMA3
UL 94 V-0 approved ABS case and UL 94 V-1 approved poly carbonate lid

PROBE

.395" Dia. (10) stainless steel

SENSOR

Encapsulated Pt1000 ohm velocity thermistor
Encapsulated ntc 10k ambient thermistor

DISPLAY

3.5 digit LCD display

ACCURACY

±5% measurement accuracy

OUTPUT SIGNAL

Linear 0-10V, field selectable to 4-20mA

VELOCITY RANGES

Standard 0-2000 fpm (0-10.2 m/s)
Optional 0-400 fpm (0-2.03 m/s)
Optional 0-4000 fpm (0-20.3 m/s)

TEMPERATURE RANGE

32°F to 122°F (0°C to 50°C)

HUMIDITY

0-95% RH, non-condensing

POWER REQUIREMENTS

24 VDC/24VAC ± 10%

AGENCY LISTINGS

UL 94 V-0
Meets requirements for CE EMC directive 2004/108/EC and RoHS directive 2002/95/EC
Meets requirements for electrical equipment for measurement, control, and laboratory use: ETL marking, standard IEC61010-1

SUITABLE DUCT SIZES

Round 3" - 16" (78 - 406)
Rectangular 3" x 3" (78 x 78) up to 16" x 16" (406 x 406)

NOTES:

1. Values in parentheses () are millimeters unless otherwise indicated.
2. Refer to Installation Instructions for additional details.
3. Accuracy specification includes general accuracy, temperature drift, linearity, hysteresis, long-term stability, and repetition error.



DART shown with dual durometer mounting flange mounted on a spiral duct (by others).



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

FEATURES

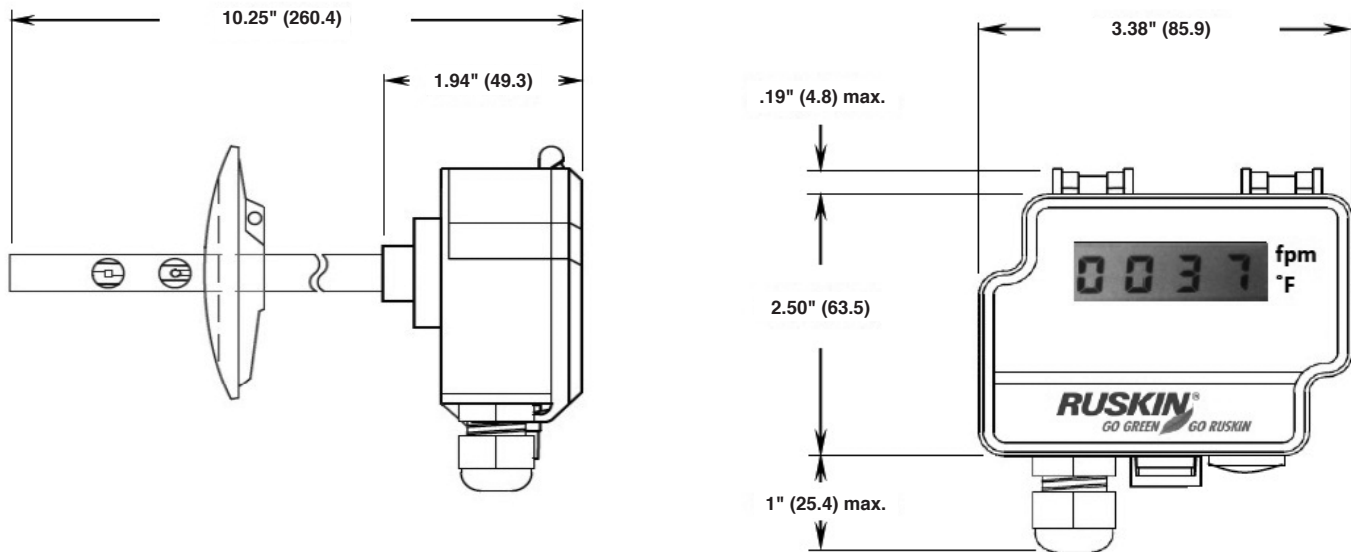
- LCD display for velocity (fpm) and temperature (°F)
- Integrated probe shaft seal for low-leak installation
- Low flow measurement for VAV and AHU applications
- Three field selectable velocity ranges (jumper settings)
- Two field selectable output signal options (jumper settings)
- Standard 3-year warranty

VARIATIONS

Ruskin model DART is available with the following variations at additional cost

- Field adjustable relay for LEED required low flow alarm
- Factory set to job specific velocity range output settings

DIMENSIONAL DATA



SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or as in accordance with schedules, an electronic thermal dispersion type airflow and temperature measuring station (AFTMS) suitable for low flow applications. AFTMS shall be assembled, tested, and commissioned in an ISO9001 certified facility. The electronic probe shall be constructed of stainless steel and have an immersion range from 2" (51) to 7.08" (180), suitable for ducts up to 16" (406) in one dimension. The probe shall be capable of monitoring and reporting the airflow and temperature at each measuring location and communicate readings to the building automation system (BAS). Control interface shall include a 3¹/₂ digit liquid crystal digital (LCD) display at each location. Temperature and airflow analog outputs shall be field adjustable with the option for 0-10 VDC or 4-20 mA. Probe shall

be factory commissioned to a range of 0-2,000 fpm 0-10.2 m/s) and shall facilitate field adjustments for either 0-400 (2.03 m/s) or 0-4,000 fpm (20.3 m/s) as required by the specific application. All electronic components of the assembly shall be lead-free RoHS compliant and conform to EMC requirements. Probe shall be tested to satisfy the NRTL product approval requirements. A label shall display the CE logo as verification that testing has been certified. Product shall conform to ANSI/UL standard 61010 and certified to CAN/CSA std. C22.2, No 61010 and shall bear the ETL label. ETL label verifies that the product has been tested to meet the requirements for electrical equipment for measurement, control, and laboratory use. The electronic airflow and temperature probe shall be in all respects equivalent to Ruskin model DART.



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