

# 076B Fan Aspirated Radiation Shield

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The **076B Fan Aspirated Radiation Shield** protects temperature and humidity sensors from direct and indirect radiant energy. Used in the most adverse conditions, the 076B eliminates errors caused by solar or terrestrial radiation, as well as secondary errors caused by convective heat transfer from the outer shield surfaces. It continuously samples ambient air to support high accuracy temperature and differential temperature measurements. It is the best aspirated shield available on the market. A humidity sensor can be installed in the shield for combined measurements.

In Operation, air is drawn into the bottom of the sensor housing through two concentric ports. The air sample moves at high velocity through the outer port and scrubs the outer surfaces as it is exhausted. The inner port then draws in the sample, enabling a true gas temperature measurement to be made. This airflow system prevents convective heat transfer to the sampling stream.



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## Features

- Errors reduced to  $< 0.05^{\circ}\text{F}$  ( $< 0.03^{\circ}\text{C}$ )
- Easy maintenance and sensor calibration
- Accommodate several sensors for Delta T measurements
- Radiation errors independent of outside emissivity
- Low-conductive interconnects
- DC or AC power operation
- Corrosion-resistant construction with white gloss epoxy enamel finish
- CEasy mounting and tower servicing

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## Specifications

### Operating Characteristics

Aspiration:	Electric fan
Flow Rate:	1000 ft/min scrubbing 500 ft/min sample
Temperature Range:	Standard $-50^{\circ}\text{C}$ to $+85^{\circ}\text{C}$ ( $-67^{\circ}\text{F}$ to $185^{\circ}\text{F}$ ) Optional $-50^{\circ}\text{C}$ to $+100^{\circ}\text{C}$ ( $-67^{\circ}\text{F}$ to $212^{\circ}\text{F}$ )
Power Required:	115 VAC 20 watts 12 VDC 250 mA 220 VAC 18 watts

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## Specifications

### Sensors

Maximum Number:	Four
Models Numbers:	060/062/083/T-200A
Maximum Diameter:	.75 in (1.9 cm)
Maximum Length:	10 in (25 cm)
Transducer Sensing Zone:	8 in (20 cm)

### Physical Characteristics

Weight:	9.3 lbs (4.2 kg)
Dimensions:	20in(51cm)h x 20 in (51 cm) diam.

### Cable & Mounting

Signal:	PN 2144 Cable Assembly; specify length in feet or meters
AC Power:	PN 1954 Cable Assembly; specify length in feet or meters
DC Power:	PN 2423 Cable Assembly; specify length in feet or meters
Mounting:	Mounts to 3/4 in. IPS horizontal pipe

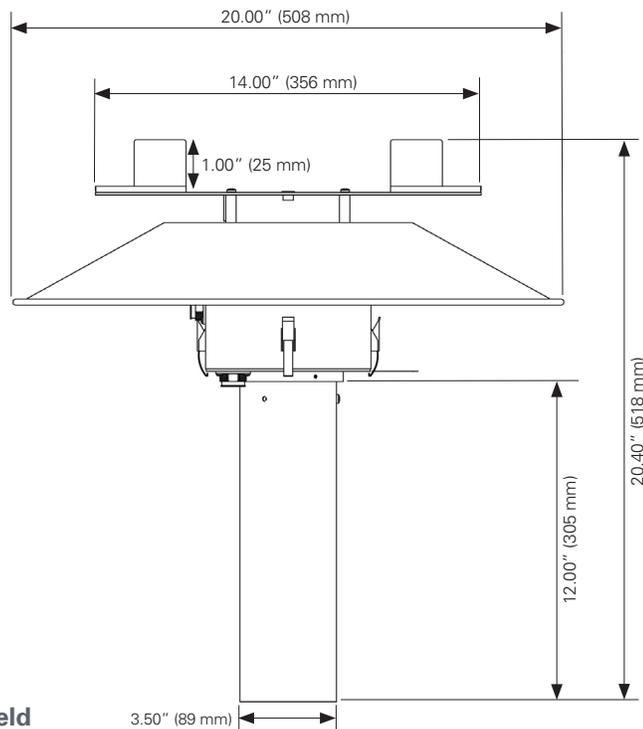
### Ordering Information

Model 076B-1:	115 VAC
Model 076B-4:	12 VDC
Model 076B-11:	220 VAC

Order model number corresponding to voltage requirement.

Specifications are subject to change at any time.

## Technical Drawing



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