SUBMITTAL SHEET

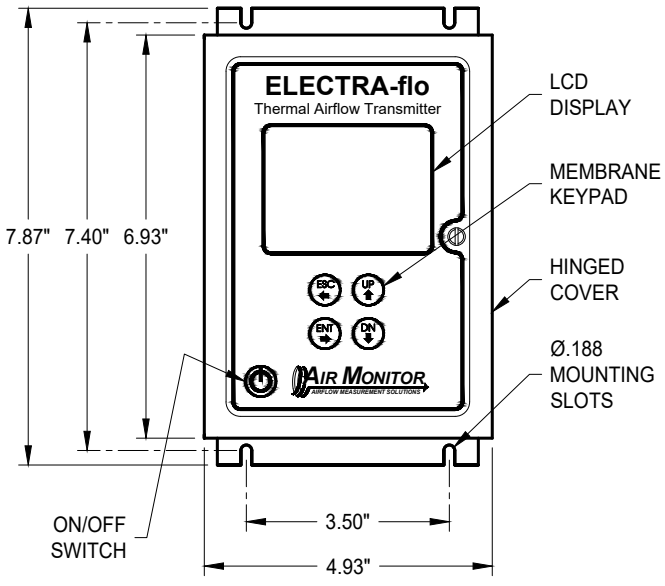
ELECTRA-flo G5 TRANSMITTER (Version 2.4)

THERMAL AIRFLOW MEASURING SYSTEM

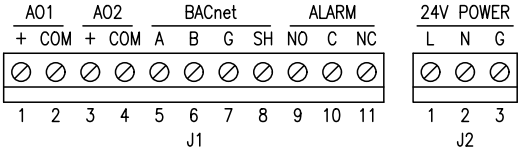
STANDARD CONSTRUCTION

Maximum Number of Sensors:	32 per probe array or measuring station.
Display:	Backlit, 1/4 VGA (320 x 240), color TFT LCD. 2.75" x 2.0" display size.
Configuration Access:	Field programmable, menu driven user interface accessed via four button keypad. Field selectable in U.S. or S.I. units for velocity / flow and temperature. Password protected.
Power Supply:	24VAC (20-28VAC) or 24VDC (20-40VDC), isolated and fused with reverse polarity protection.
Power Consumption:	16 to 90VA, based on the quantity (1 to 32) of sensors in the probe array or station.
Outputs:	Dual analog outputs, field selectable via menu for 0-5VDC, 0-10VDC, or 4-20mA. Single alarm output, field programmable.
Analog Output Scaling:	Field programmable analog output scaling of airflow velocity and temperature. Velocity range for ducted applications: 0 to 4000 FPM for ELECTRA-flo/CM; 0 to 5000 FPM for Probe Arrays. Temperature range: 0 to 140°F.
Analog Output Resolution:	0.02%
Analog Output Filtering:	Field programmable over 10:1 range.
Network Output Communication:	BACnet® or Modbus®.
Humidity Limits:	0 to 99% RH, non-condensing.
Temperature Limits:	-20°F to 180°F Storage; -20°F to 140°F Operating.
Electrical Connections:	Terminal strips with plug-in connectors for field wiring. Probe to transmitter connection via shielded plenum rated cable with mini-DIN Snap & Lock connector.
Enclosure:	NEMA 1 aluminum with hinged cover.
Approvals:	UL 60730 pending; BTL pending; FCC Part 15 Subpart B, Class A Device.

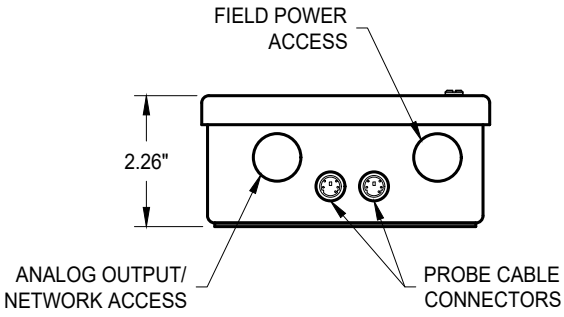
DIMENSIONAL INFORMATION



FRONT VIEW



TERMINALS (Located Inside Enclosure)



BOTTOM VIEW

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AIR MONITOR
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SUBMITTAL SHEET

ELECTRA-flo PROBE & G5 TRANSMITTER

CONSTRUCTION OPTIONS
THERMAL AIRFLOW MEASURING SYSTEM

Probe
- ❑ Standard - Type 6063 Anodized Extruded Aluminum
- ❑ Type 316 Stainless Steel

Probe Connection Box
- ❑ Standard - Aluminum, NEMA 1
- ❑ Polycarbonate, NEMA 4X
- ❑ Stainless Steel, NEMA 4X

Transmitter Enclosure
- ❑ Standard - Aluminum, NEMA 1
- ❑ Fiberglass, NEMA 4X, with Clear Lid
- ❑ Stainless Steel, NEMA 4X
- ❑ Stainless Steel, NEMA 4X, with Window

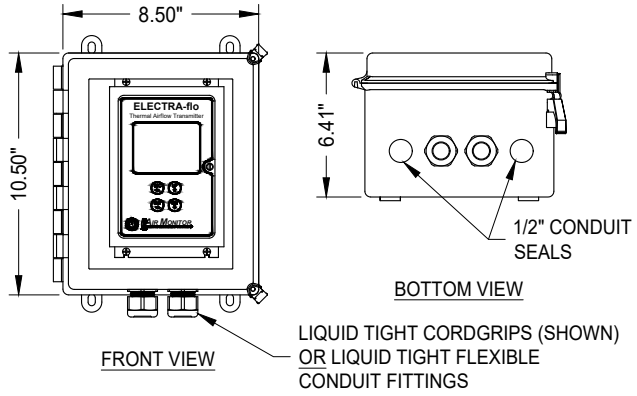
Transmitter Cable
- ❑ Standard - 10' ❑ 25' ❑ 50' ❑ 100'

Cable Connections
- ❑ Standard - Cable with mini-DIN Connectors
- ❑ Liquid Tight Cordgrips
- ❑ Liquid Tight Flexible Conduit Fittings

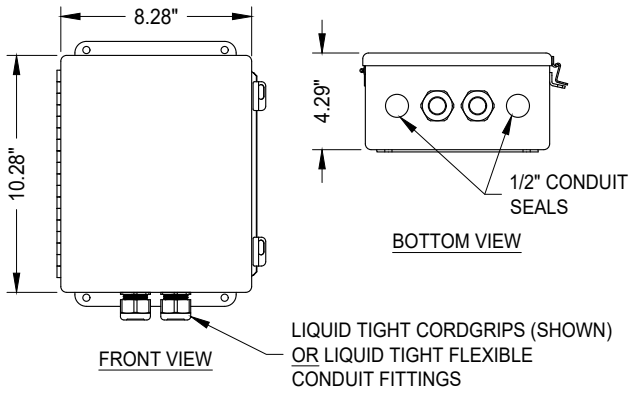
Network Communications
- ❑ BACnet ® ❑ Modbus ®

Transmitter Mounting
- ❑ Standard - Remote
- ❑ On ELECTRA-flo Station

G5 TRANSMITTER ENCLOSURE OPTIONS

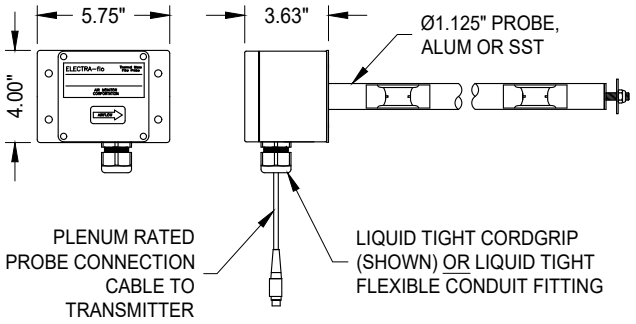


NEMA 4X - FIBERGLASS

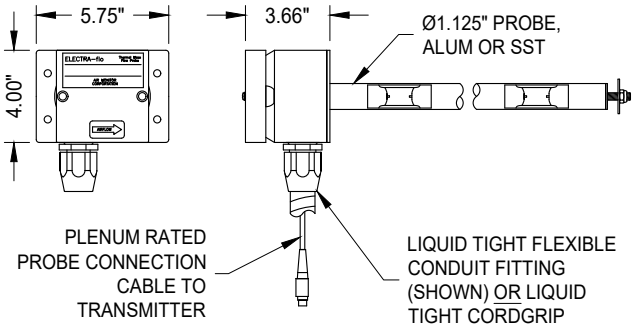


NEMA 4X - STAINLESS STEEL

PROBE CONNECTION BOX OPTIONS



NEMA 4X - POLYCARBONATE



NEMA 4X - STAINLESS STEEL

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SUBMITTAL SHEET

EXTENDED CASING ELECTRA-flo STATION

WITH THIRD-PARTY OPPOSED BLADE DAMPER
THERMAL AIRFLOW MEASURING SYSTEM

STANDARD CONSTRUCTION

Casing:	14 ga. galvanized sheet metal, intermittently welded, sealed with metal caulking.
Flanges:	1-1/2" wide, 90° formed flanges.
Probe:	Type 6063 anodized extruded aluminum. 1-1/8" diameter.
Sensor Housing:	Injection molded polycarbonate.
Sensor Type:	Hermetically sealed, precision matched thermistors with laser trimmed resistive heating element mounted in flow conditioning aperture.
Sensor Signal Processing:	Microprocessor with 12 bit A/D conversion for each sensor node.
Probe Mounting:	Externally mounted via 4" x 4" aluminum plate, with closed cell neoprene gasket.
Probe to Probe Connection:	Integral plenum rated cable with mini-DIN Snap & Lock connector for signal and power. Multiple probe array connect serially in daisy chained configuration.
Station to Transmitter Connection:	Integral plenum rated cable with mini-DIN Snap & Lock connector. Standard length 10'.
Sensor Density:	ELECTRA-flo Probe Array Level 1, Level 2 or Level 3.
Damper:	See damper manufacturer's submittal sheet for construction and performance information.

PERFORMANCE SPECIFICATIONS

Individual Sensor Accuracy:	±2% of reading
Sensor Temperature Accuracy:	±0.1 °F
Qty. Calibration Points per Sensor:	6
Velocity Calibration Range:	0 to 5000 FPM
Operating Temperature:	-20 °F to 140 °F
Operating Humidity:	0 to 99% RH, non-condensing

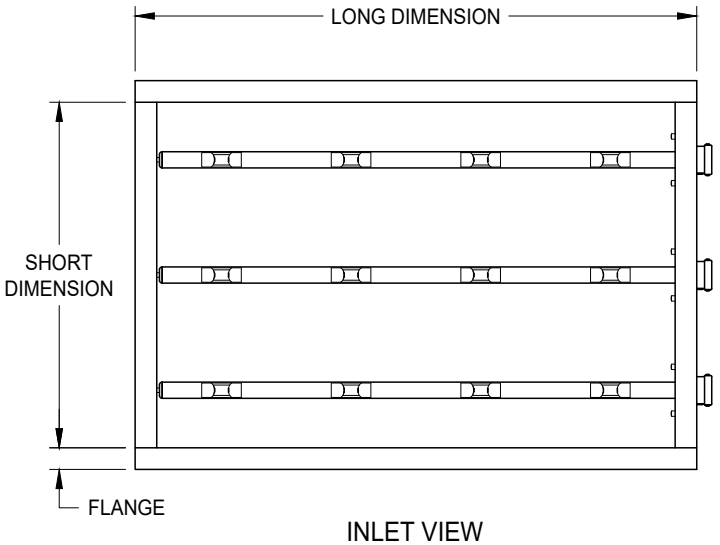
OPTIONAL CONSTRUCTION

- ❑ Probes mounted on the long side.
- ❑ Damper shaft on the long side.
- ❑ Engraved identification tag.
- ❑ Factory mounted transmitter.

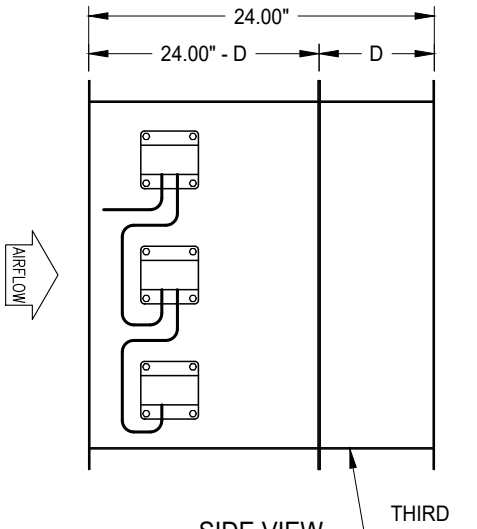
Sensor Density:
❑ Level 1 ❑ Level 2 ❑ Level 3

Station to Transmitter Cable Length:
❑ 25' ❑ 50' ❑ 100'

DIMENSIONAL SPECIFICATIONS



INLET VIEW
(DAMPER BLADES NOT SHOWN)



SIDE VIEW

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AIR MONITOR
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SUBMITTAL SHEET

ELECTRA-flo Probe Array - Level 1
ELECTRA-flo/M Station - Level 1
ELECTRA-flo/CM Station- Level 2

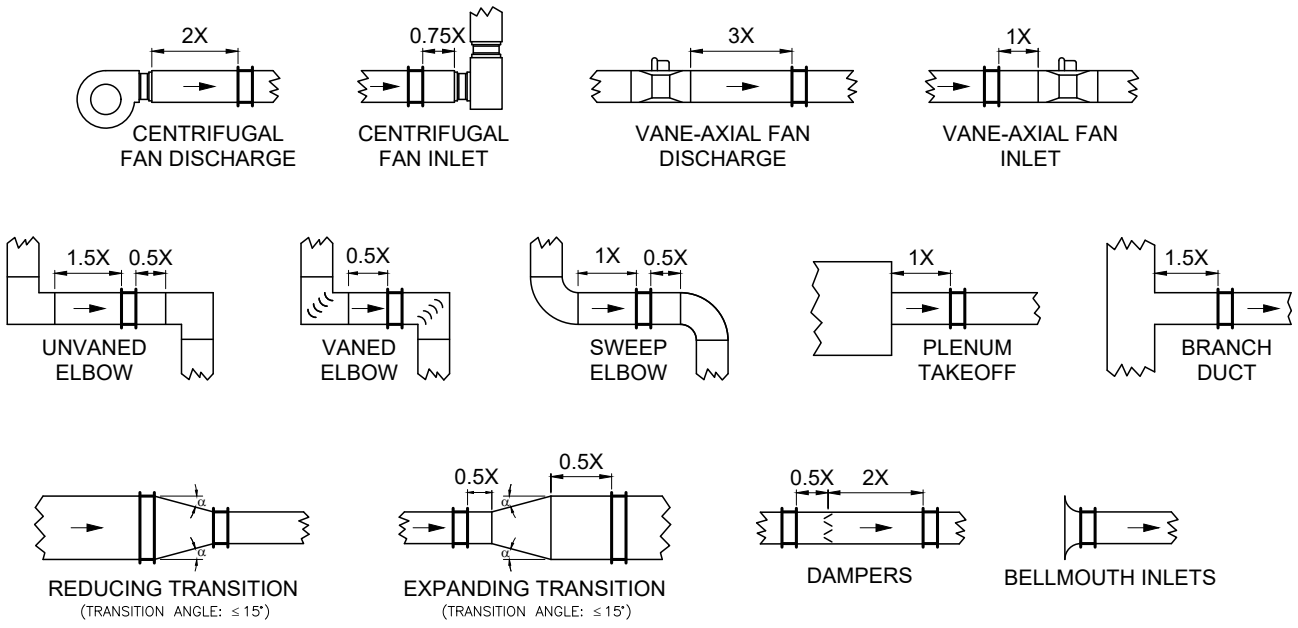
MINIMUM INSTALLATION REQUIREMENTS

INSTALLATION CONSIDERATIONS. Installation factors to be considered when applying the ELECTRA-flo Probe Array-Level 1, ELECTRA-flo/M Station-Level 1 or ELECTRA-flo/CM Station-Level 2 are as follows:

Turbulent Airflow. The distance between the airflow disturbance (i.e., fittings, transitions, etc.) and the installed location, as shown below, is the **minimum** requirement for installation to assure accurate airflow measurement. Wherever possible, the ELECTRA-flo Probe Array-Level 1, ELECTRA-flo/M Station-Level 1 or ELECTRA-flo/CM Station-Level 2 should be installed with longer runs of straight duct (or clearances) than shown.

Airborne Contaminants. The levels of air filtration and cleanliness associated with commercial HVAC Systems, whether supply/return/exhaust air, are satisfactory for operation of the ELECTRA-flo Probe Array-Level 1, ELECTRA-flo/M Station-Level 1 or ELECTRA-flo/CM Station-Level 2. Applications containing airborne contaminants may require periodic manual cleaning using compressed air and/or physical cleaning.

Direction of Airflow. To prevent improper installation, each ELECTRA-flo Probe Array-Level 1, ELECTRA-flo/M Station-Level 1 or ELECTRA-flo/CM Station-Level 2 is marked with an arrow indicating the required direction of airflow.



NOTE: 'X' Distances are to leading or trailing edges for STATIONS (shown), or to centerline for PROBES.

Equivalent Duct Diameter X

Rectangular Duct: $X = \frac{2(HxW)}{H+W}$ Circular Duct: X = Duct Diameter

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AIR MONITOR
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SUBMITTAL SHEET

ELECTRA-flo Probe Array - Level 2
ELECTRA-flo/M Station - Level 2
ELECTRA-flo/CM Station - Level 3

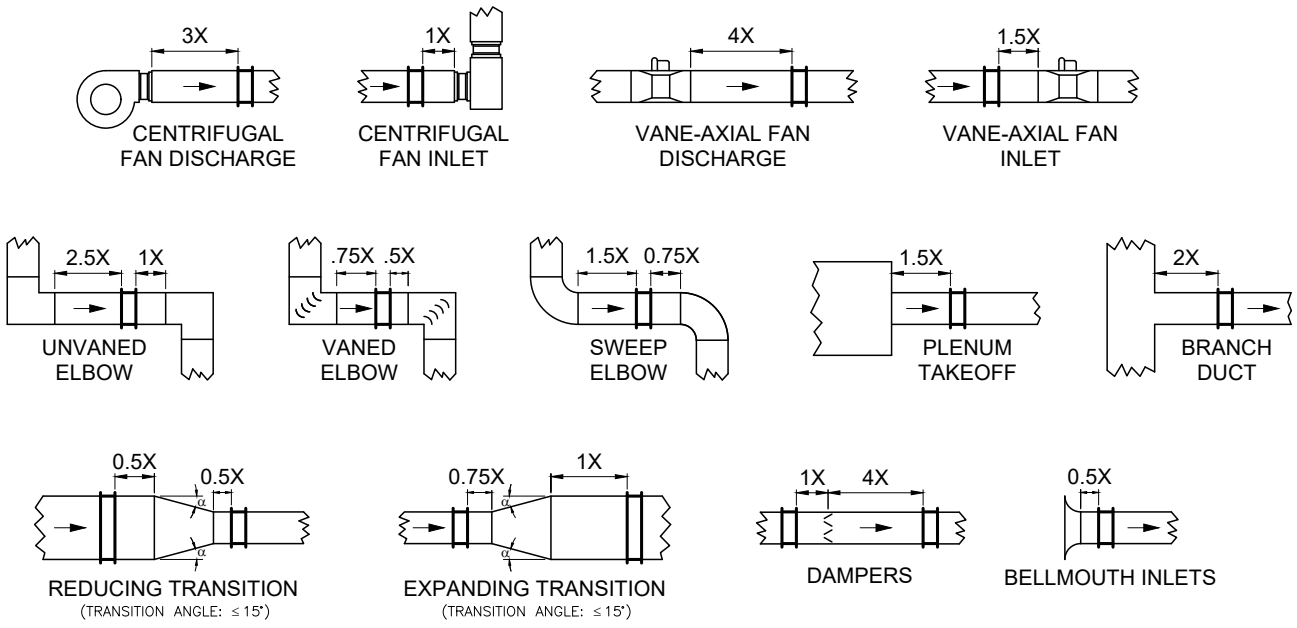
MINIMUM INSTALLATION REQUIREMENTS

INSTALLATION CONSIDERATIONS. Installation factors to be considered when applying the ELECTRA-flo Probe Array-Level 2, ELECTRA-flo/M Station-Level 2 or ELECTRA-flo/CM Station-Level 3 are as follows:

Turbulent Airflow. The distance between the airflow disturbance (i.e., fittings, transitions, etc.) and the installed location, as shown below, is the **minimum** requirement for installation to assure accurate airflow measurement. Wherever possible, the ELECTRA-flo Probe Array-Level 2, ELECTRA-flo/M Station-Level 2 or ELECTRA-flo/CM Station-Level 3 should be installed with longer runs of straight duct (or clearances) than shown.

Airborne Contaminants. The levels of air filtration and cleanliness associated with commercial HVAC Systems, whether supply/return/exhaust air, are satisfactory for operation of the ELECTRA-flo Probe Array-Level 2, ELECTRA-flo/M Station-Level 2 or ELECTRA-flo/CM Station-Level 3. Applications containing airborne contaminants may require periodic manual cleaning using compressed air and/or physical cleaning.

Direction of Airflow. To prevent improper installation, each ELECTRA-flo Probe Array-Level 2, ELECTRA-flo/M Station-Level 2 or ELECTRA-flo/CM Station-Level 3 is marked with an arrow indicating the required direction of airflow.



NOTE: 'X' Distances are to leading or trailing edges for STATIONS (shown), or to centerline for PROBES.

Equivalent Duct Diameter X

Rectangular Duct: $X = \frac{2(HxW)}{H+W}$ Circular Duct: X = Duct Diameter

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SUBMITTAL SHEET

ELECTRA-flo Probe Array - Level 3
ELECTRA-flo/M Station - Level 3

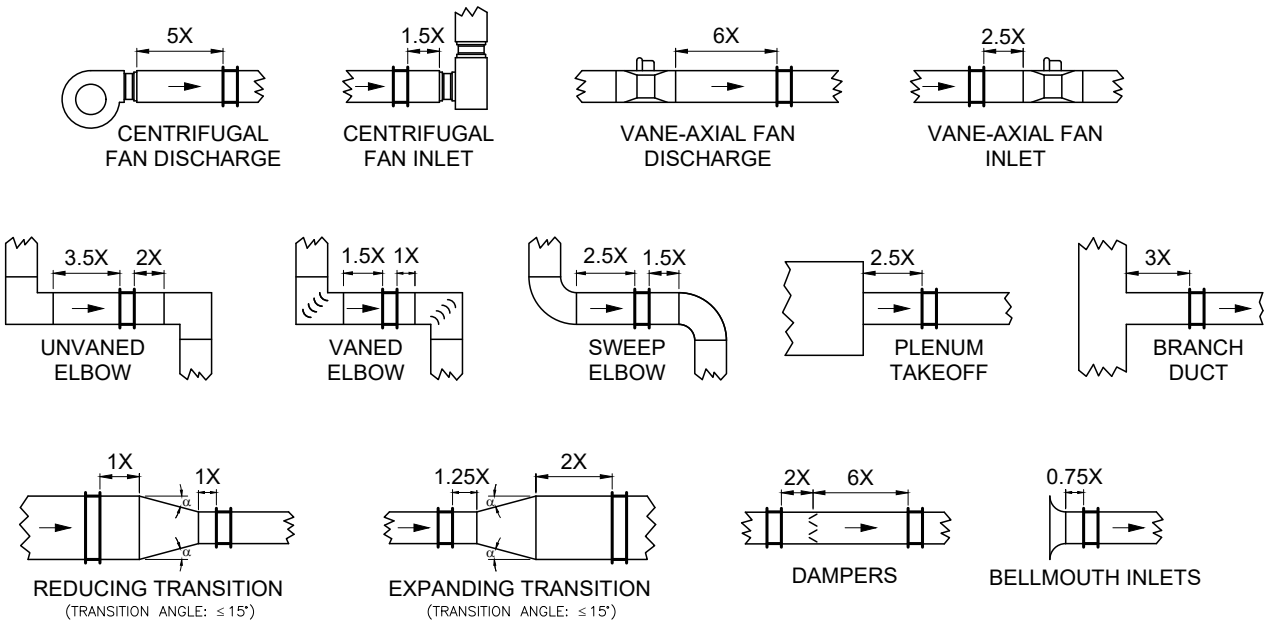
MINIMUM INSTALLATION REQUIREMENTS

INSTALLATION CONSIDERATIONS. Installation factors to be considered when applying the ELECTRA-flo Probe Array-Level 3 or ELECTRA-flo/M Station-Level 3 are as follows:

Turbulent Airflow. The distance between the airflow disturbance (i.e., fittings, transitions, etc.) and the installed location, as shown below, is the **minimum** requirement for installation to assure accurate airflow measurement. Wherever possible, the ELECTRA-flo Probe Array-Level 3 or ELECTRA-flo/M Station-Level 3 should be installed with longer runs of straight duct (or clearances) than shown.

Airborne Contaminants. The levels of air filtration and cleanliness associated with commercial HVAC Systems, whether supply/return/exhaust air, are satisfactory for operation of the ELECTRA-flo Probe Array-Level 3 or ELECTRA-flo/M Station-Level 3. Applications containing airborne contaminants may require periodic manual cleaning using compressed air and/or physical cleaning.

Direction of Airflow. To prevent improper installation, each ELECTRA-flo Probe Array-Level 3 or ELECTRA-flo/M Station-Level 3 is marked with an arrow indicating the required direction of airflow.



NOTE: 'X' Distances are to leading or trailing edges for STATIONS (shown), or to centerline for PROBES.

Equivalent Duct Diameter X

Rectangular Duct: $X = \frac{2(HxW)}{H+W}$ Circular Duct: X = Duct Diameter

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