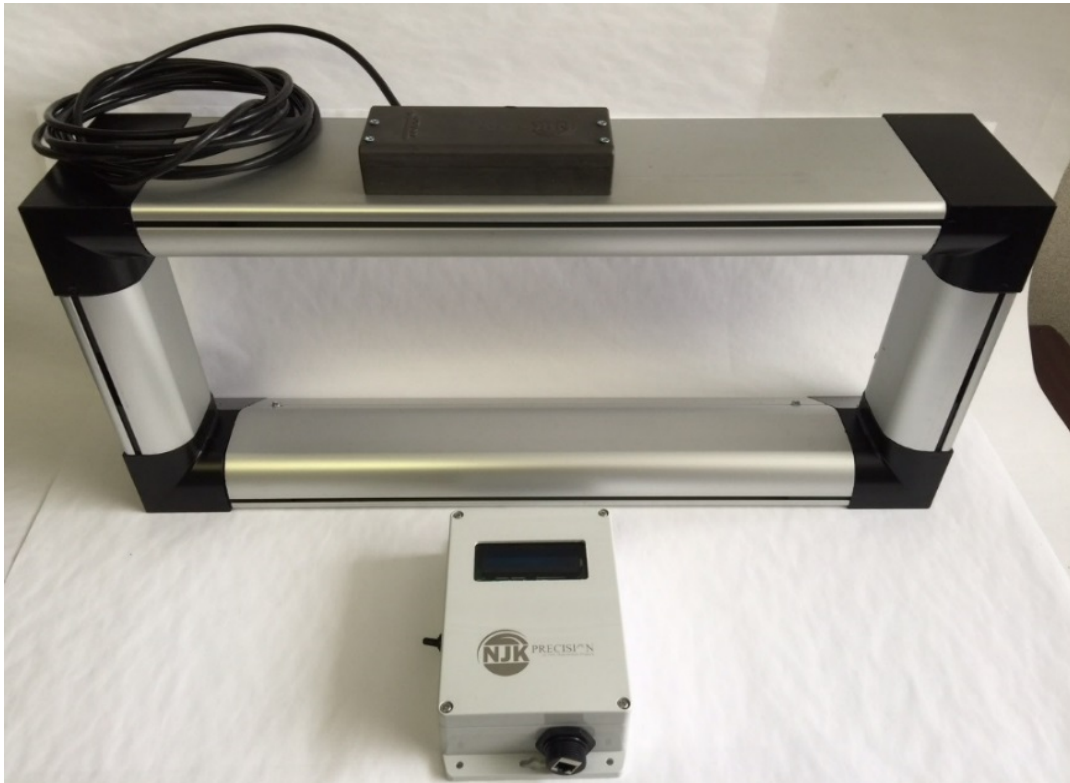




**NJK Precision Product  
NJK-02 Sensor – Purchasing Guide**



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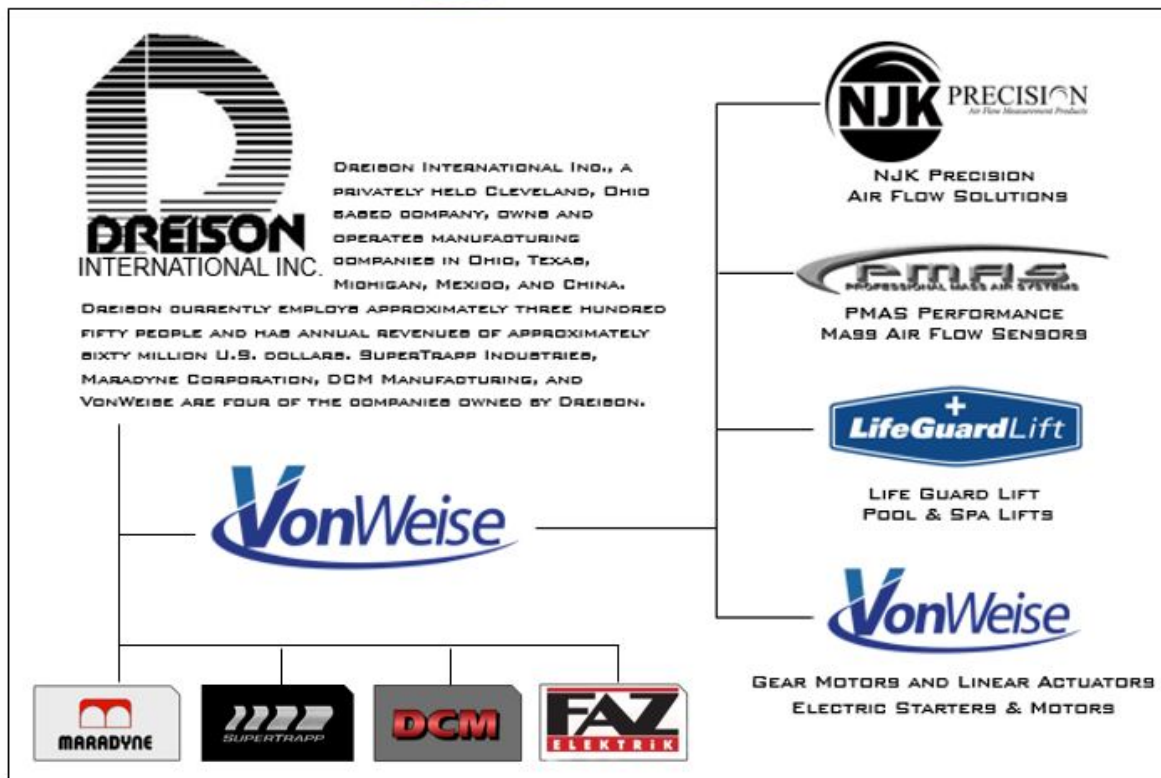
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## NJK Precision Company Overview

The NJK Precision Product Overview:

The **NJK-02 Air Flow Measuring Station** is proudly Made in the USA in our NJK Factory located in Eaton Rapids, Michigan. The NJK-02 Air Flow Measuring Station consists of the perimeter sampling aluminum extrusion “Flow Frame”, a “Sensing Module” which contains the sensing probe and signal transmitter and is mounted to the “Flow Frame” and is the one single sensing probe associated with each NJK-02 Air Flow Measuring Station, and a Display Module with User Interface for set up and calibration of each flow station.

### The **VonWeise** Company Structure:



Cleveland OH , Eaton Rapids MI , Grand Prairie TX , Enpalme Mex., Juarez Mex., Columbus OH , Madison WI , Kansas City MO , St Louis MO , China, Turkey

The NJK Precision Team:

**Kevin Hein**, President  
Von Weise Companies  
(kevin.hein@vonweise.com)

**Nick Wolgamott**, Vice President of  
Engineering PMAS-MAF and NJK Precision

**Robert Pierce**, Plant Manager and Design  
Von Weise Companies

**Michael Hurd**, Factory  
Representative – NJK Precision  
(michael.hurd@vonweise.com)

**Beth Allen**, Sales Manager  
Von Weise Companies  
(beth.allen@vonweise.com)



## NJK Precision Product NJK-02 Sensor – Purchasing Guide

### NJK-02 Sensor Deliverables:

The NJK-02 Sensor will usually ship disassembled and will require field assembly.

All NJK-02 Sensor Modules will be delivered with a water-tight construction and are safe for use in outdoor applications.

The NJK Sensor Module will contain the sensing probe and signal transmitter. This will come with a factory cable that will be 25 feet in length. Custom cables can be purchased at 50', 75', and 100'.

Ideally all NJK-02 Sensor Modules will be mounted **Internally** on the NJK Sensor Assembly and will be located on the longer side of the assembly. If an alternate placement of the NJK Sensor Module is desired this must be stated when the NJK Sensor is ordered.

All NJK-02 Sensor orders will be delivered with a Mounting and Assembly sheet, a Building Automation Data sheet. And an Installation and Operators Manual.

All NJK-02 Sensors will be delivered with mounting brackets for both the front and rear of the sensor housing for sensor attachment purposes (Unless ordered with an installation sleeve). The NJK Air Flow Station can be secured from outside of the ductwork by screwing into each sensor corner piece (1 inch from edge of damper framing ) with self-tapping screws. Screw-Through extrusion mounting is not recommended!

If the NJK-02 Sensor is ordered to be mounted in ductwork with a duct insulation liner the NJK Sensor will be delivered with mounting brackets designed for the lined duct mounting installation.

NJK Precision will make every sensor  $\frac{1}{2}$ " less than the size that is quoted (both height and width). NJK Precision will deduct twice the size of each duct liner thickness ordered (plus the  $\frac{1}{2}$ ").

NJK Sensors ordered with the smallest dimension being less than 16" and a sizing aspect ratio of 3 to 1 or less may use the smaller sized sensor flow frame. Any sensor larger than that will need to be ordered as the larger sized sensor flow frame.

NJK Sensors ordered with the longest dimension being less than 10' (120 inches) and a sizing aspect ratio of 5 to 1 or less will be a standard NJK Precision product order. Any sensors greater than 120 inches will be a special order and may require special mounting and location considerations.

The NJK Precision Air Flow Station can be ordered with a sheet metal sleeve (See Page 8) to allow for easy field adaptation of "bolt-together" fastening flange products for installation ease or if the job specifications require their usage. The NJK Sensor will come mounted externally to the sensor frame.



## **NJK Precision Product NJK-02 Sensor – Purchasing Guide**

### **NJK-02 Sensor Deliverables:**

The NJK Precision Air Flow Station can be ordered with a sheet metal Finish End Plate for use with installations where ductwork is already in place and the NJK Sensor will be mounted inside of a cut opening in the ductwork (See Page 4). The opening will need to be 6 inches in height and the entire width of the duct where the sensor will be mounted. Finish End Plates are available for either horizontal or vertical sensor mounts and are delivered in 16 gauge thickness and come with alignment mounts and 2 inch by 2 inch angle corner plates. The NJK Sensor will come mounted externally to the sensor frame and will extend through an opening in the Finish End Plate.

The NJK Precision Air Flow Station can be ordered with factory mounting by the air handler manufacturer with some brands of custom and standard air handlers. Prior approval is required.

The NJK Display/Operator Interface will have a User Adjustable - Integral Signal Dampening feature (output filter), BAS Signal Range Adjustment, and a Display Range Adjustment

All electrical connections will be an RJ-45 plug-in from the Sensor Module to the NJK Display/Operator Interface. All connections will have a liquid tight screw-on cover housing protecting the RJ-45 connection.

NJK Precision Sensor Flow Frames, electronics, Display/Operator Interface , and sensor and connection modules all come with a three year product warranty.

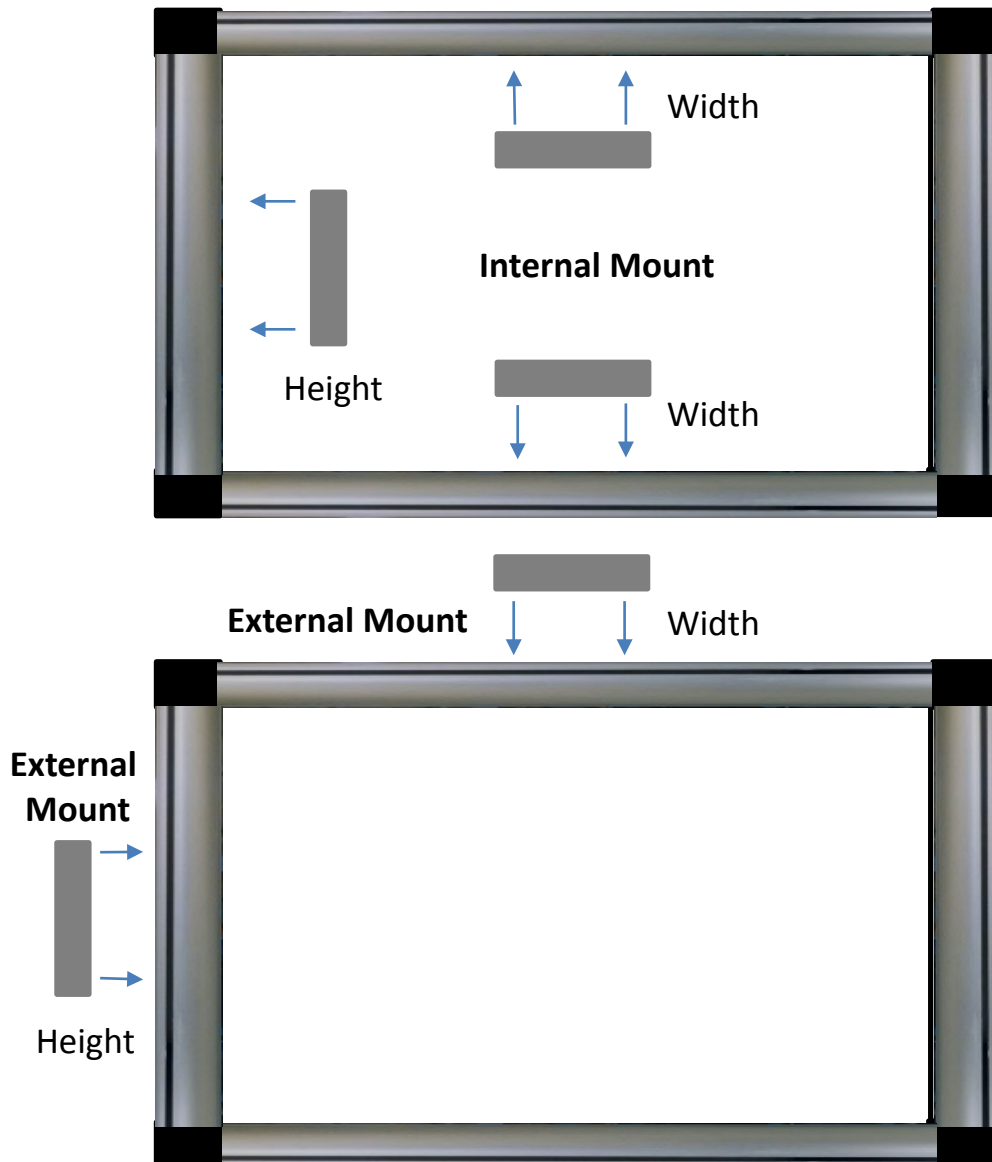
NJK Precision will ship all standard orders from our factory in Eaton Rapids, Michigan three weeks from the date of receiving a completed and approved Customer Purchase Order and NJK Precision Technical Submittal directly related to each sensor order. Any alterations to this original order may negatively effect the manufacturing process and can extend the final shipment date.

Special orders such as zone retrofits or custom sensors or mounting may yield a longer lead time.

### NJK-02 Ordering: Determine Sensor Module placement.

NJK Precision Sensor Modules are available mounted **inside (Internal)** of the NJK Sensor Flow Frame or **outside (External)** to the NJK Sensor Flow Frame. These can also be mounted on the Height side of the Sensor Flow Frame or on the Width side of the Sensor Flow Frame.

- **Rain Hood** and **Assemble in Duct** sensors will come with an Internally mounted Sensor Module.
- **Sleeve Mounted** and **Cut and Slide** applications will normally come with an Externally mounted Sensor Module.
- In both of these applications we will need to know if the Sensor Module will be located on the Height side or on the Width side of the Sensor Flow Frame.



### NJK-02 Ordering: Items Needed for Ordering NJK Sensor

#### Title Items:

- Customer Name:
- Facility:
- Building:
- Sensor Location:
- Order Date:
- Sensor Mount (Inside length or height, outside length or height).
- Extra Items needed (Cable Lengths, etc)

#### Mounting Options:

- None (Assemble in Duct, Rain Hood);
- End Plate - Cut and Slide (Indicate Height or Width);
- Sleeve (TDF, Ductmate);
- Factory Mounting.
- Duct Liner being used
- Package Labeling Required (Special)
- Ship-To Address

**Items Necessary for NJK Sensor** ordering are Representative (if any), Job Name & Location, Duct Size or Opening Size, Quantities, Duct Liner (if any), Sensor Module placement, and Mounting Options Required.

**NJK Sensor Duct Sizing** is either the Plan and Specification duct size or the sensor inlet opening size. NJK will manufacture every sensor  $\frac{1}{2}$ " less than the size that is quoted (both height and width). On lined duct applications we will provide the NJK Sensor at a finished size twice the thickness of the duct liner (both height and width), plus  $\frac{1}{2}$ " less than the size quoted.

#### **NJK Sensor Mounting Options are:**

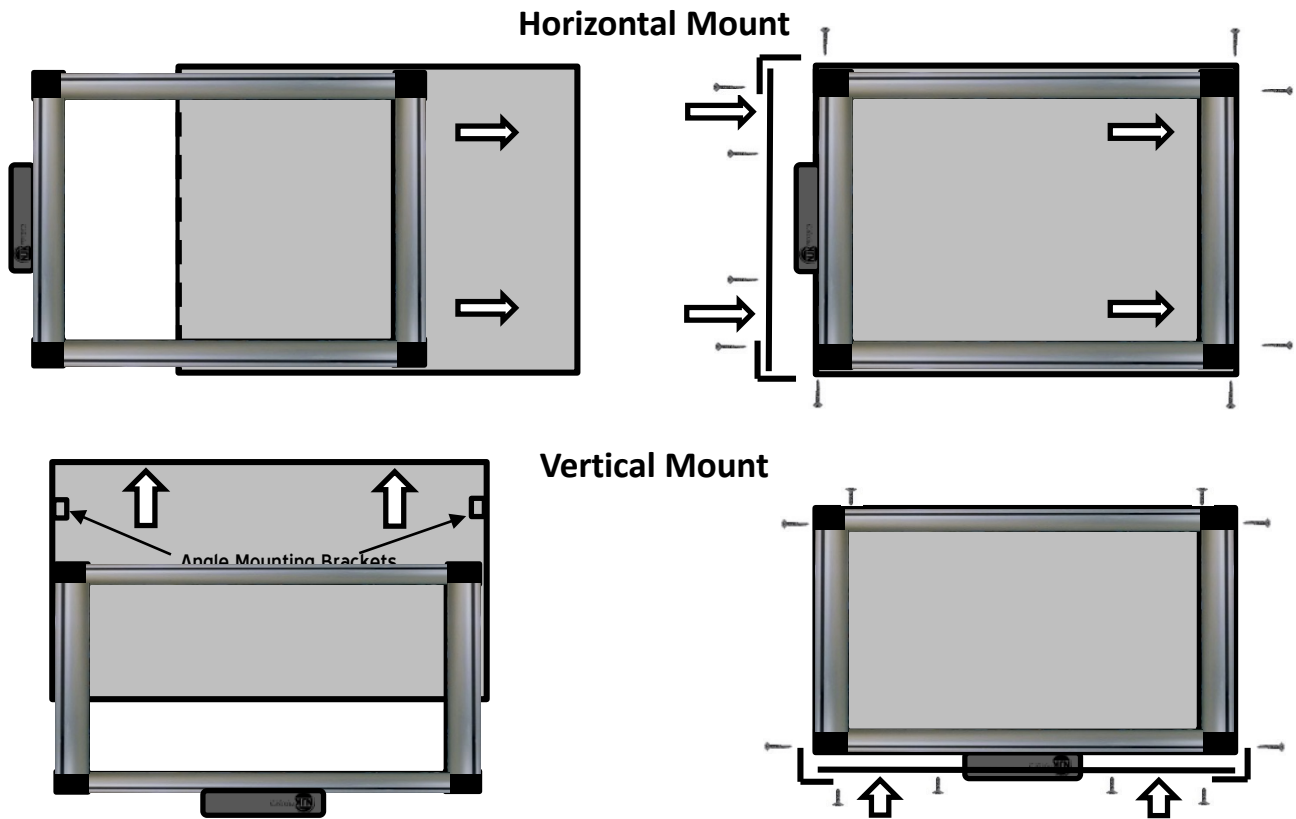
- Assemble in Duct,
- Sleeve-TDF,
- Sleeve-Ductmate,
- Cut and Slide Installation (comes with End Plate on Width or Height),
- Rain Hood Mounted,
- Factory Installation (with approval).

Transitional Duct Flange (TDF) and Ductmate are sheet metal edge configurations which allow for easy bolt together installation when mounting the NJK Sensor in a sheet metal sleeve.

**NJK Sensor Options are:** ordering Factory Calibration (up to 24 inch), optional temperature sensor, lined duct offsets, finish end plates, and extrusion couplings for crowded mechanical areas (Large Profile only)

**NJK Sensors installed in an open inlet** such as an Outside Air Damper opening in a Rooftop Unit will require a factory mounted 1 inch flange around the inlet face of the NJK Sensor Flow Frame.

## NJK-02 Ordering: Cut and Slide-In Option with Finish End Plate



## NJK Sensor Finish End Plate Option:



## Rain Hood Mount Installation: (Sensor Module internally mounted)



### NJK-02 Ordering: Sheet Metal Sleeve Option

The NJK Precision Air Flow Station can be ordered with a sheet metal sleeve to allow for easy field adaptation of “bolt-together” fastening flange products for installation ease or if the job specifications require their usage. The NJK Sensor will come mounted externally to the sensor frame. Available configurations are Sleeve-TDF, Sleeve-Ductmate™

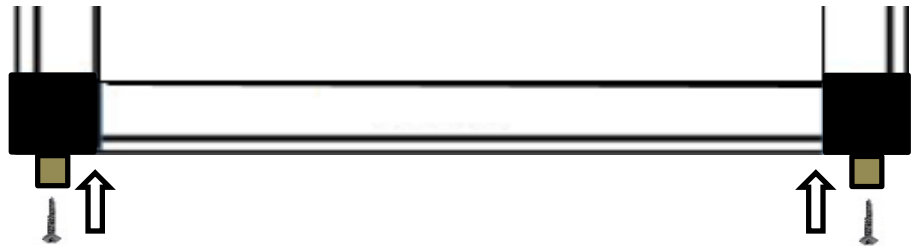


Sleeve-TDF



Sleeve-Ductmate

### NJK-02 Ordering: Lined Duct Option



### NJK Sensor Mounting Accessories:

The NJK Air Flow Station can be secured from outside of the ductwork by screwing into each sensor corner piece (1 inch from edge of damper framing ) with self-tapping screws.

