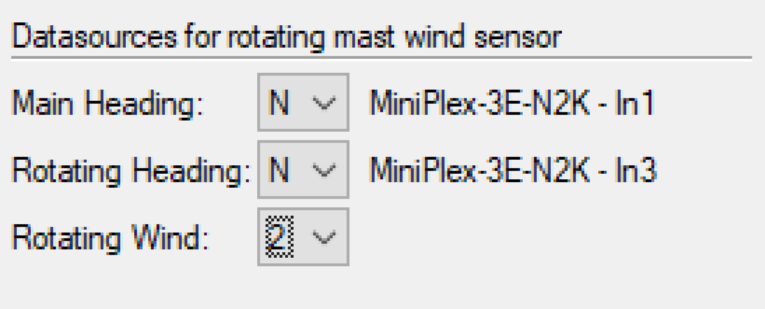
Rotating Mast Wind Correction

The MiniPlex-3 offers a feature to measure the angle of a rotating mast with an inexpensive heading sensor mounted to that mast.

The mast rotation angle is calculated from the heading received from a fixed magnetic heading sensor and the heading received from the mast-mounted magnetic heading sensor. The resulting mast angle is used to correct the wind angle received from a mast-mounted wind sensor.

Configuration

The configuration of this feature is very straightforward. On the **Conversions** tab in MPXConfig3 is a section called **Data sources for rotating mast wind sensor**, as shown below:



Datasource selection

The following data sources must be selected:

Main Heading Selects the fixed magnetic heading source

Rotating Heading Selects the mast-mounted rotating heading source

Rotating Wind Selects the mast-mounted rotating wind source

Each source had a small drop-down selector to select the NMEA 0183 input the sensor is connected to or so select an NMEA 2000 (**N**) data source. When **N** is selected, the text **<Click>** appears. If you click on this text with your mouse, an NMEA 2000 Device List opens where you can select the NMEA 2000 device that sources the required data. Select the desired device and click on **OK**, or simply double-click on the desired device. The window will close and the selected device name will be visible to the right of the selector. To change the NMEA 2000 data source, click on the name to open the NMEA 2000 Device List again.

Corrected Wind Angle

As soon as the data sources have been set up, the MiniPlex-3 will calculate the corrected wind angle if the required data is received. How the corrected wind angle is transmitted again, depends on wether the source is connected to an NMEA 0183 input or to the NMEA 2000 network.

Wind Angle from NMEA 0183

If the wind angle is received from an NMEA 0183 source, the wind angle in the received WMV sentence is replaced with the corrected wind angle. The corrected wind angle is thus available from the original input.

On an NMEA 2000 enabled MiniPlex-3, the corrected wind angle is transmitted onto the NMEA 2000 network from the device belonging to that input.

So, if the wind source is connected to **In1**, the corrected wind angle will be available from input **1** in the Routing Table and also from virtual NMEA 2000 device “MiniPlex-3xx-N2K - In1”.

Wind Angle from NMEA 2000

If the wind angle is received from an NMEA 2000 source, the corrected wind angle will be available as an MWV sentence on the NMEA 0183 "input" **NMEA Conversions** (input **C** in the routing table) and from virtual NMEA 2000 device “MiniPlex-3xx-N2K - Cnv”.