Wind direction:

| | | | | | | |
|---|---|---|---|---|---|---|
| 18 | | 3 | w_dir_3 | | | |
| | | 2 | w_dir_2 | =0 to f, see | | |
| | | 1 | w_dir_1 | definition | | wind direction(0-F) |
| | | 0 | w_dir_0 | table | | |

| | | | |
|---|---|---|---|
| wind direction | | 0 | N |
| | | 1 | NNE |
| | | 2 | NE |
| | | 3 | NEE |
| | | 4 | E |
| | | 5 | EES |
| | | 6 | ES |
| | | 7 | ESS |
| | | 8 | S |
| | | 9 | SSW |
| | | A | SW |
| | | B | SWW |
| | | C | W |
| | | D | WWN |
| | | E | WN |
| | | F | WNN |

According to the resistance value to judge the wind direction.

The magnet inside the Wind vane unit can make one of the eight reed switches turn-on,then the resistance value of the reed switch circuit can be calculated,thus the current wind direction can be judged.

Method for calculating the resistance as follows:

Firstly, the pin42 and the pin49 are set to input port,the pin43 is set to output high level,then the Charge delay time (T1) can be calculated according to the state of the pin49.

Secondly, the pin43 and the pin49 are set to input port,the pin42 is set to output high level,then the Charge delay time (T2) can be calculated according to the state of the pin49.

Thirdly, Since the formula which is

$$T1/T2=R13/RX$$

has been established,as the R13=10K,then the RX can be calculated. So the current wind direction can be judged by the resistance value of the RX.