Application Notes

Subject: WindSonic single channel tunnel mode 4-20mA

Reference AN0044

Introduction

Some existing tunnels are fitted with the RMY Propellers that are able to provide wind speed and wind direction using a single 4-20mA signal.



Indicating Direction & Speed

This is carried out by setting a centre point in the 4-20mA signal as equal to 0m/s, which in this case will be 12mA.

When the propeller turns in the north to south direction the output range will be 12-4mA

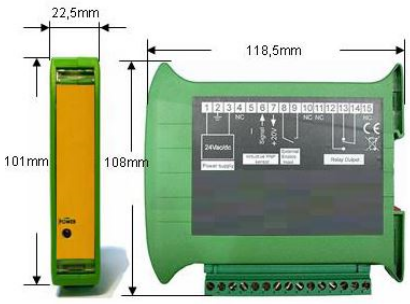
When the propeller turns in the south to north direction the output range will be 12-20mA.



Effectively indicating -20m/s – 0 – +20m/s, which therefore provides a wind speed level and a flow direction in the tunnel.

Control Llevant Solution

Control Llevant has programmed an interface that will allow WindSonic to be used in these existing applications by converting the ASCII output from WindSonic to a single 4-20mA output, which is able to indicate wind speed and wind direction.



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WindSonic

The WindSonic range of anemometers that has been installed into some of the most strenuous applications due to its proven solid-state technology i.e. having no moving parts to wear. Resilient to the harsh environments often found in tunnels, our WindSonic sensors are low cost, low maintenance devices, providing fit-and-forget installation and thus reducing ongoing service costs.

WindSonic sensors are suitable for an almost unlimited range of wind measurement based applications and deliver real-time, accurate data whilst providing truly dependable performance for safety critical applications.