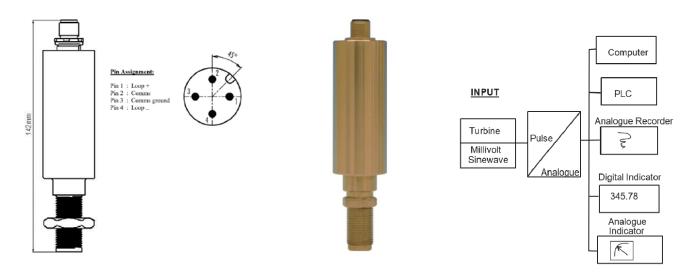# TURBINE FLOW METER SENSOR WITH BUILT-IN FREQUENCY TO CURRENT CONVERTER

This unit converts the output frequency from your Turbine flow meter into a linear 4-20mA signal.

Pin Assignment:

Pin 1 : Loop +
Pin 2 : Comms
Pin 3 : Comms ground
Pin 4 : Loop _

INPUT

Turbine
Millivolt Sinewave → Pulse / Analogue → Computer, PLC, Analogue Recorder, Digital Indicator 345.78, Analogue Indicator

Materials of Construction

Protection:	IP67
Materials:	303 Stainless steel
Mounting:	On to the flowmeter with 5/8"-18 UNF thread
Temp. range:	-20 to 65 deg C

Technical Data

Voltage Supply:	12 -28V DC loop supply
Connector:	4 pin Connector (M12)
Max Load:	4-20mA into 250 Ohms @ 12 V dc or 4-20mA into 1K Ohms @ 28 V dc
Linearity:	0.2 % of span
Sampling Rate:	32 Hz
Max Input Frequency:	3 KHz

Application

This unit converts the millivolt sinewave frequency output from a turbine flow meter into a loop powered 4-20 mA signal for instruments such as PLCs, computers, flow controllers, data loggers or local displays. It has a 32Hz update time making it ideal for hydraulic circuit or engine testing when a fast response to changes in flow are required.

Installation

It has a 5/8" -18 UNF thread, for connection to turbine flow meters. Other thread sizes are available.

Instrument Function

This unit takes the frequency input from a turbine flow meter and converts it to a 4-20ma analogue output. It is programmed with up to 8 points from the flow meter calibration curve and linearly interpolates between each point. This improves the accuracy and extends the linear range of the flow meter.

Setup

The instrument is pre-set for your flow meter using points from the calibration certificate. The 4ma and 20ma levels are set to your requirements.