



DS:2012-3

FUEL CONSUMPTION MONITORING SYSTEM



FOR ACCURATE AND ECONOMICAL MEASUREMENT OF FLUID FLOW

i2c offers an Industrial flow metering system used for monitoring Fuel consumption measurement of fuels in the marine industry.

With the increasing impact of exhaust emissions on the environment, combined with the phenomenal increases in fuel costs, for business to be effective it has become the need of the hour **TO SAVE COST** in fuel consumption. This has led to a high demand for accurate measurement systems to monitor the fuel consumption per engine. For the large variety in fuel systems, i2c offers a modular fuel consumption measurement system.

Where can fuel consumption be measured ?

Fuel consumption measurement can be performed in engine-driven installations in all kinds of power and propulsion plants. Various types of fuel can be measured, such as heavy fuel oil, marine diesel oil or bio-oils. Depending on the design of the fuel system and the preferences of the customer a single or multiple flow metering system can be used in combination with temperature compensation to obtain the most accurate measurements. Your advantage i2c has over 30 years experience in the development, production and application of precision measuring instruments for (fuel) flow measurement. The very high accuracy (down to 0.1%) and high repeatability (0.02%) of the flow meters are not affected by pressure, viscosity or temperature of the fuel. In addition the design of the systems is very robust and easy to operate, making them ideal for use in the typical environmental conditions on board ships or power plants. Depending on the specifications and requirements, a large variety of counters, computers and flowmeters with integrated temperature sensors is available.

Series DS:2012-3 : Genset and Engine Efficiency Monitoring System

For Fuel Powered Gensets and Engines



Specifications

Accuracy

Flow Measurement : $\pm 0.1\%$ of reading
 Repeatability : $\pm 0.02\%$ of reading

Display

Efficiency : 9.99 Unit/Liter.
 Load : 9999 kw.
 Fuel Rate : 999 LPH
 Units Totaliser : 9999999.9 KWH
 Fuel Totaliser : 9999999.9 Liters.
 Hrs. Totaliser : 999999.99 hrs.
 Real Time : DD/MM/YY Date.
 HH/MM/SS Time.

Inputs

: Fuel Flow Signal from Fuel Monitor.
 : CT/PT Input from Genset Panel.
 : Genset ON/OFF Signal from Engine
 : ON/OFF Transducer.

Communication

: RS485 Communication link to PC.
 : RS485-RS232 Converter for link to PC COM port.

PC Report

: Genset Daily Log Report in Excel format.

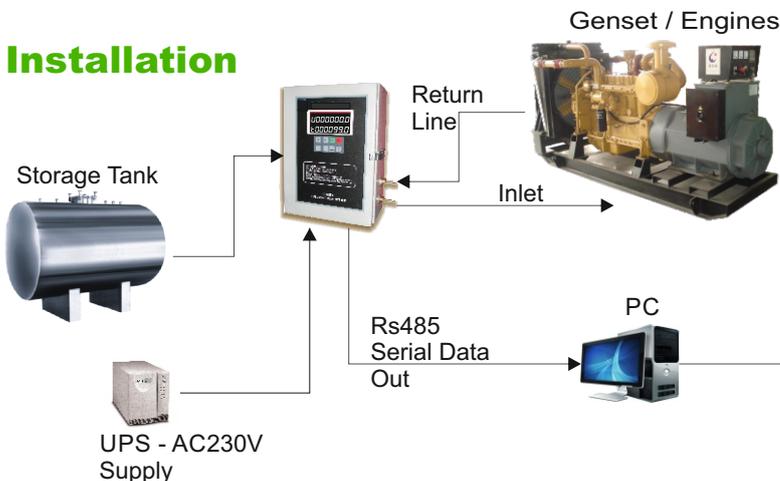
INTRODUCTION

The Series DS:2012-3 : Genset Efficiency Monitor is a state of the art micro controller based measurement concept which combines genset fuel consumption and power output measurement in one single compact instrument. Apart from displaying the live on line genset efficiency in Units/Litre, it provides logged data transmission on a RS485 link to a remote PC, completely automating genset efficiency monitoring, a most vital need in power house management.

FEATURES

- Directly interfaces with i2c 'Genset /Engine Fuel Monitor' for Fuel Measurement.
- Measures net fuel consumption for Gensets and Engines
- Built in Energy Transducer for energy measurement.
- Displays dynamic on line efficiency in Units/Litre for each Litre consumed..
- Directly interfaces with Engine ON/OFF Transducer for run hrs logging.
- Displays resettable & cumulative totaliser for Units, Litres & Engine Run Hrs.
- Built in Real time clock for data logging on 24 hr basis for all parameters.
- Logged data transmission to remote PC on RS485 communication link.
- Software utility for PC provided to view logged data in Excel format.
- Provision for daisy chaining sixteen monitors to one single PC.

Installation



Daily Log Report

Genset Daily Log

Date : Dec-28-2005
 Genset : DS2012-3
 User : IOCL, PUNE

Serial NO	Start Time	End Time	Duration (Sec)	Opening Totaliser	Closing Totaliser	Total Consumption in Ltrs	Avg Flow Rate (LPM)
1	12/28/2005 10:20	12/28/2005 10:30	10	1234.23	1523.23	0	0
2	12/28/2005 18:13	12/28/2005 18:13	1	24.67	24.67	0	4.44
3	12/28/2005 18:20	12/28/2005 18:21	1	24.67	29.11	4.44	4.44
4	12/28/2005 18:25	12/28/2005 18:25	-20	29.11	29.29	0.18	-0.00015
5	12/28/2005 18:28	12/28/2005 18:28	20	31.56	39.69	8.13	0.006775
6	12/28/2005 18:33	12/28/2005 18:33	10	39.69	39.88	0.19	1.14
7	12/28/2005 18:34	12/28/2005 18:34	5	39.88	44.82	4.94	59.28
8	12/28/2005 18:35	12/28/2005 18:36	50	44.82	55.58	10.76	12.912

