

Op-Advance

POWER AND FUEL CONSUMPTION MONITORING SYSTEM

SHAFT POWER, FUEL CONSUMPTION & SPEED MONITORING SYSTEM

Intelligently designed system for efficiency improvement



Main features

- + **Convenient dashboard view**
Provides a quick, real-time view, of your system
- + **Time interval in graph mode**
Displays last minute or last hour data on a graph
- + **Statistics and voyage specific data**
Statistics for specific engine or overall configuration
- + **12" Marine DNV touchscreen panel computer**
Touch screen panel computer with dimmable screen
- + **GPS signal input**
Connect a GPS device over a RS-232 NMEA 0183
- + **Remote support access**
A fast and easy way to upgrade the system
- + **Engine performance reports generator**
Adobe Acrobat® PDF and Microsoft Excel® formats

A performance system customized to fit your needs

Op-Advance is a versatile performance monitoring system designed to display, log and analyse power, RPM, torque and fuel consumption from KRAL flowmeters and Binsfeld Engineering torque meters. It also integrates data from the shipboard GPS.

The KRAL Volumeter

with a precision of $\pm 0.1\%$, it is the ideal instrument for fuel consumption measurement.

The Binsfeld Engineering's TPM2

is a rugged precision instrument designed to measure torque and/or power in real time on rotating shafts of sizes up to 40 inches (1016 mm) in diameter.

Monitored data

- + Total fuel consumption
- + Total distance travelled
- + Peak and average speed
- + Average specific fuel consumption
- + Fuel consumption per nautical mile
- + Average shaft torque, power and revolution

Additional features (options)

- + Wheelhouse repeater
- + Electrical power meter
- + Email report module



Op-Advance

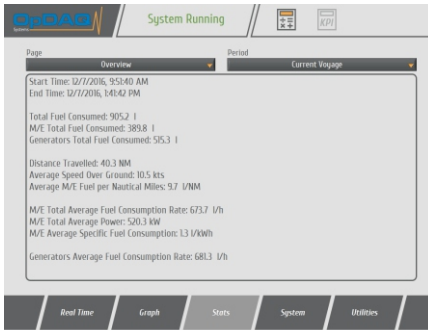
POWER AND FUEL CONSUMPTION MONITORING SYSTEM

Operation analysis & change implementation using real time data



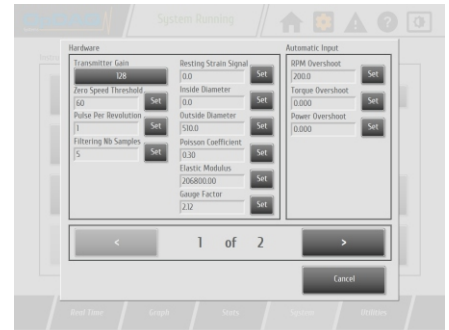
Graph display

Display of last-minute or last hour data.



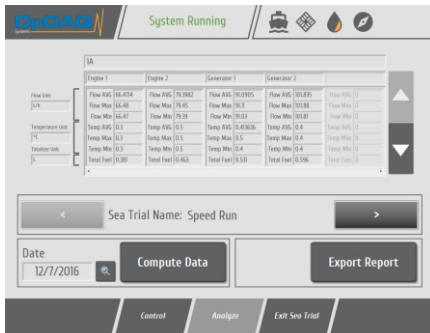
Statistics

Gives access to calculated statistics and voyage specific data.



Configuring instruments

Locked to the normal everyday user. Unlock it to configure the system.



Sea Trial module

Measure, compare and benchmark vessel performance. The sea trial module records lap data as easily as recording time with a chronometer.

Data output and reports

Data output includes real-time display. Daily, voyage and sea trial reports. Historical data in binary or text format.

1	Lap Overview						
2	AVG RPM	Total Engine Fuel SFC	FIMM	AVG Speed	Distance travelled		
3	1A 1A	846.86251697	0.033	0.266000007	4.450000011	0.003375	
4	1B 1B	846.5444489	0.036	0.266000007	10.11067196	3.795000017	
5	2A 2A	847.189388	0.041	0.266000007	9.115934275	4.020000021	
6	2B 2B	846.875541	0.038	0.266000007	9.115934275	4.153333454	
7	0 - AVG Torque 0 - Max Torque 0 - Min Torque 0 - AVG Power 0 - Max Power 0 - Min Power						
8	1A 1A	1.14796551	1.14835095	1.14787296	101.257544	101.260047	
9	1B 1B	1.14479484	1.14713896	1.14062953	100.954704	101.197348	
10	2A 2A	1.10595688	1.11302473	1.09695877	97.5814836	98.2576142	
11	2B 2B	1.12446034	1.12064811	1.12341831	99.1067559	99.18704224	
12	0 - AVG Flow 0 - Max Flow 0 - Min Flow 0 - AVG Temp 0 - Max Temp 0 - Min Temp						
13	1A 1A	18.0199982	18.2399987	17.8299982	3.90000005	3.90000005	
14	1B 1B	17.9074978	18.1699982	17.4199984	3.90000005	3.90000005	
15	2A 2A	16.9719995	17.6499982	15.6199989	3.90000005	3.90000005	
16	2B 2B	17.3400005	17.7800009	16.6599985	3.90000005	3.90000005	
17	GPS						
18	0 - AVG SOG	0 - Max SOG	0 - Min SOG	0 - Long Diff	0 - Lat Diff		
19	1A 1A	4.05000011	4.15000095	3.90000005	0	2.28802545	
20	1B 1B	3.79500017	3.98000019	3.54999992	0	3.41475445	
21	2A 2A	4.05800021	4.15999987	3.72000029	0	5.34058445	
22	2B 2B	4.123333454	4.210000038	4.03000021	0	2.28802545	

Suggested system configuration

