



EXHAUST GASES TEMPERATURE MONITORING SYSTEM

Info Marine is providing monitoring systems designed for the customer needs.

One of our system is **exhaust gases monitoring system**. It can be fitted to any type of engine. The only requirements for engine are threaded holes in exhaust manifold for temperature sensors installation.

Components of the system

- Temperature sensors fitted for customer needs (thermocouple, Pt100 and other available)
- MarCon control module with touch screen

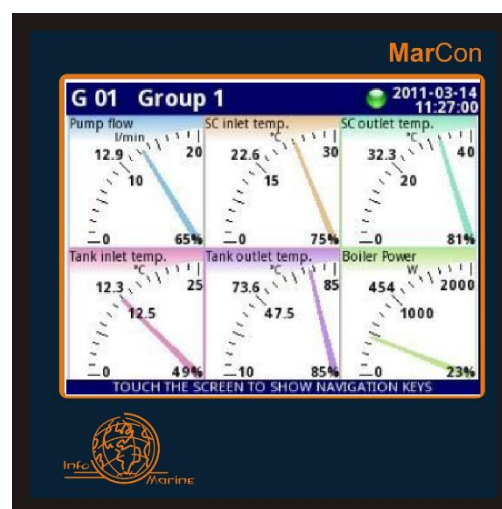
System can be installed nearby engine area in dedicated cabinet or in the panel in control room.

System can give also output alarm signal to existing control system onboard by digital output or can be connected to the already existing control system via MODBUS interface. Display unit also have the option of recording data. 1.5GB of internal data memory is enough for continuous recording of all channels with a speed of 1 sample per second (each channel) for over 2 months (125 000 000 samples in total!). Recorded data can be transferred by USB stick to the computer for future storage and for generating the reports.

Parameters of the display unit:

Power supply	19V ÷ 50V DC; 16V ÷ 35V AC or 85 ÷ 260V AC/DC
Input	36 thermocouple inputs max. 18 RTD inputs max.*
Power consumption	typical 25 VA; max. 35 VA
Display	5.7 inch graphic TFT, 16-bit color, 320 x 240 pixels, with touchscreen
Operating temperature	-20°C ÷ +70°C
Available data recording speed	from 0,1 s to 24 h with resolution 0,1 s
Case	Panel mounting
Internal memory capacity	1,5 GB
Case material	NORYLGFN2S E1
Case dimensions	144 x 144 x 100 mm
Panel cut-out dimensions	137 x 137 mm
Installation depth	Min. 102 mm

other configurations available.



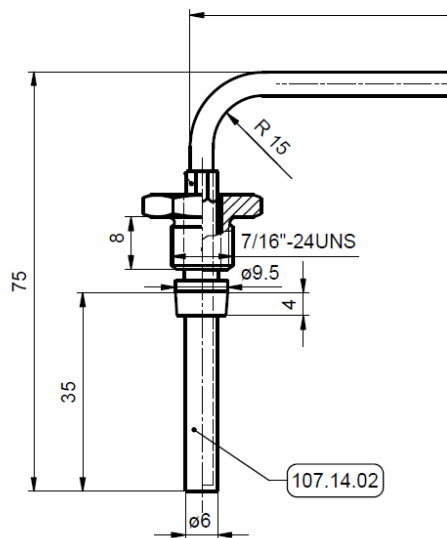


Why you should monitor exhaust gases temperature?

- Exhaust gases temperature is one of the most important parameter of the engine performance.
- Too high, too low or big difference in temperature between two cylinder can indicate problems with fuel injection system, valve timing and many others.
- Temperature monitoring can give you information about the existing problem in engine before it became serious and prevent the failure of the engine.
- Problems with injectors or valves timing can cause higher fuel consumption which is directly connected with growth of vessel operation costs.

Example of installation:

One of the installations were done on the DGs installed on offshore vessel on Cummins engine KTA-50. Each engine is equipped with 16 temperature sensors (thermocouple K- type). Sensors were modified from genuine to provide better fitting and sealing of the sensor in the installation hole and to prevent leakage of exhaust gases into the engine room.



Device is also able to inform the user and operator about high temperature in individual cylinder, i.e. when temperature reach 580°C, field with this cylinder is highlighted in yellow color, when temperature reach 650°C, field with this cylinder is highlighted in red color to indicate high temperature. Temperature limits can be set up to customer requirements.

If you have any questions regarding this system and its possibilities, please do not hesitate to contact us at office@info-marine.com.