

# **Ajax** Exhaust Gas temperature Monitor

452<sup>o</sup>C

383<sup>o</sup>C

426<sup>o</sup>C



F. Bamford (Instruments) Ltd.



# Exhaust gas temperature monitor



The exhaust gas temperature of a diesel engine is an extremely reliable indication of the efficient performance and health of the engine. Incorrect temperatures can show up burnt valves or faulty fuel pumps, blocked, maladjusted or dirty injectors.

The Bamford AJAX exhaust temperature monitor is designed to provide the operator with easy to read temperature measurement together with an instant display indication of individual cylinder performance. The unit automatically reads all the temperature sensors and calculates the average temperature of a group of sensors. The average is displayed on the digital read out and the individual cylinder's deviation from this average is indicated on the bargraph display so that a rapid glance will highlight a faulty cylinder immediately. The scale of the bargraph can be set to four preset levels to allow for engine deterioration between overhauls.

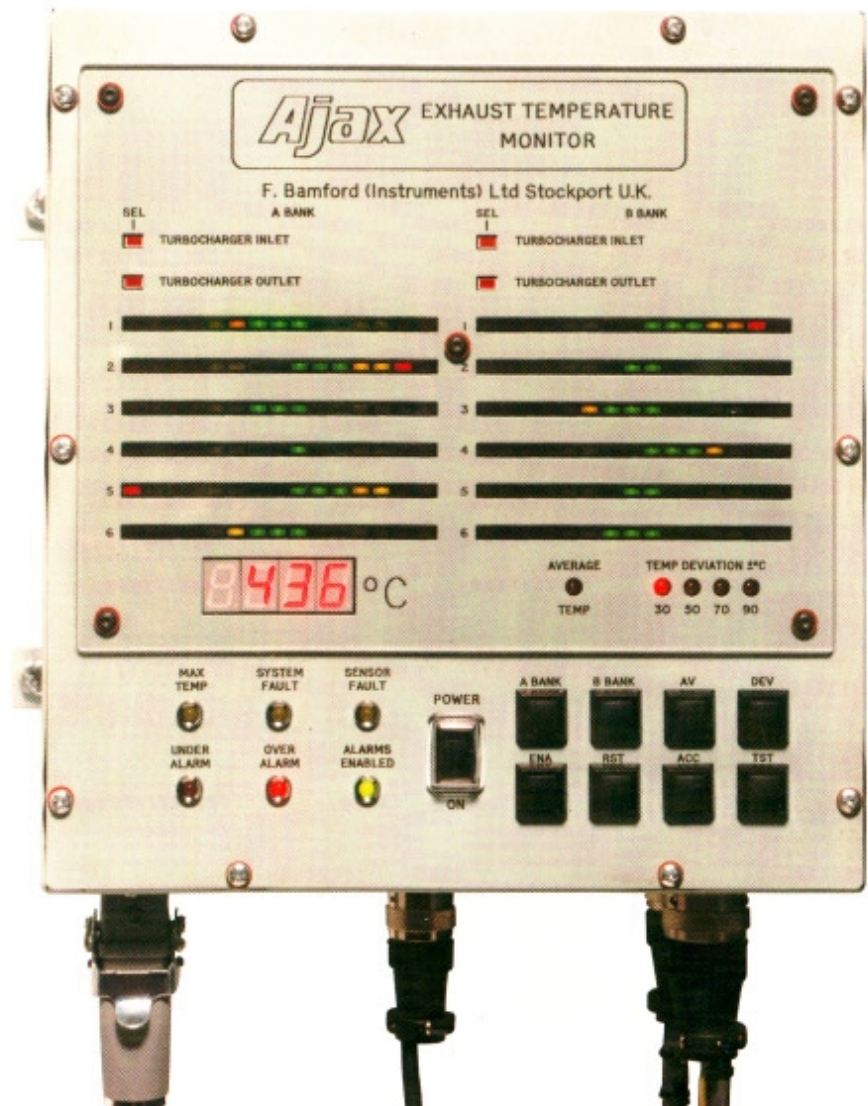
An eight button keypad allows the operator to investigate a fault or tune the engine by displaying an individual channel's actual temperature on the digital display.

The monitor is fitted with a comprehensive alarm facility with three trip points per channel giving alarm warnings of a low deviation from the average, a high deviation from average and an absolute maximum temperature. The alarms are grouped on to master alarm lights and relay contacts and the usual alarm "accept" and "reset" protocol is used. The alarm function also checks for system defects giving warnings of sensor faults and wiring faults.

## Shock & Vibration Resistant

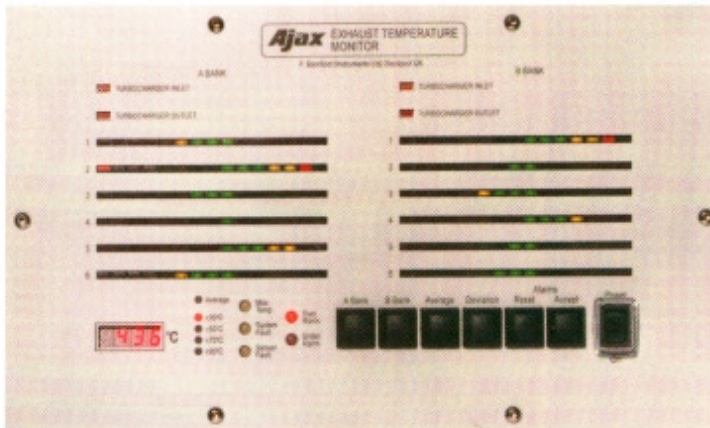
## Connectable to Main Alarm & Surveillance System

## Factory Set & Calibrated



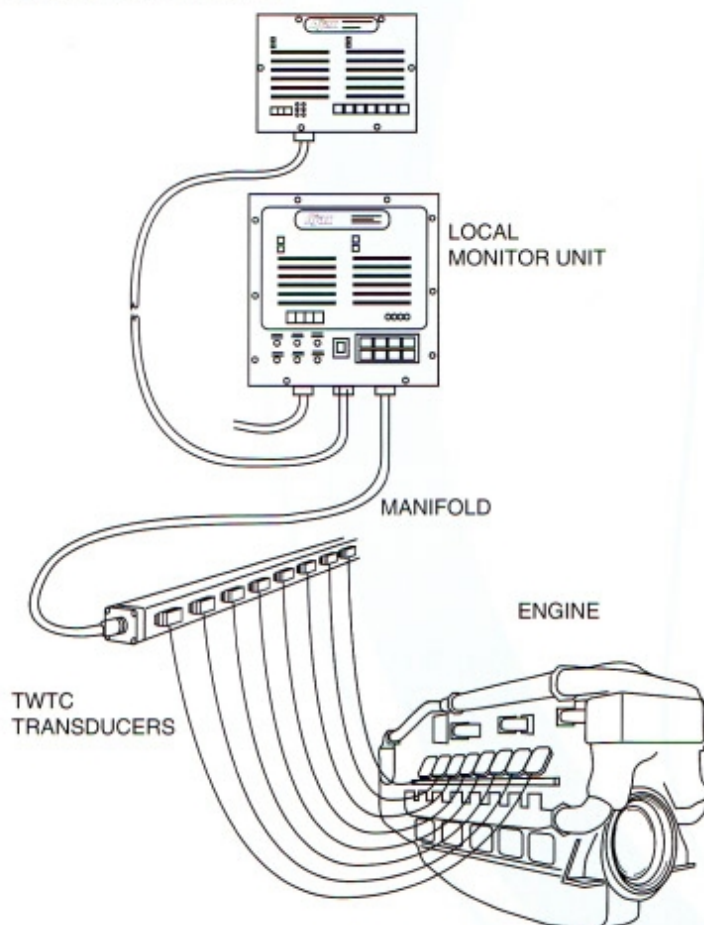


## Plug-in Sensors for ease of maintenance



## Rugged Construction

REMOTE MONITOR PANEL



## Bargraph Display of Individual Channels

The exhaust monitor is designed for use in conjunction with Bamford Ajax TWTC 4-20 mA High Temperature Transducers to create a complete exhaust temperature surveillance system. The use of a 4-20 mA current loop has a number of advantages:

- Interconnecting cable is simple low cost copper wire
- No special junction boxes required
- The monitor can be sited up to 200 metres from the engine
- System immune from noise from other electrical systems

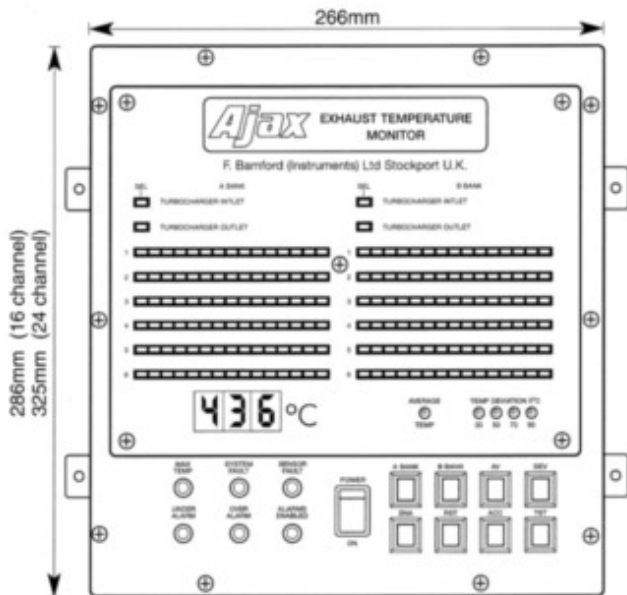
The temperature transducers are plugged into one or two robust manifolds mounted on to the engine which provides a very neat installation offering the following features:

- Modular System enables quick and easy installation, removal and maintenance.
- Identical "plug-in", ready calibrated sensors reduce spares inventory
- Lightweight yet rugged manifold system custom built to suit any number of cylinders
- Factory calibrated sensors require no on-site calibration
- Extremely easy to troubleshoot

The robustness and reliability of the Bamford-Ajax exhaust gas temperature system provides the engine operator with an extremely effective tool which readily highlights incorrect combustion in a cylinder. This not only gives early warning of defective engine components, preventing possible damage to the engine, but also allows the engine to be maintained in optimum condition thereby minimising harmful emissions to the environment.



## Dimension Drawing



NOTE: depth from front panel 162mm

## S P E C I F I C A T I O N

### ELECTRICAL

|                     |   |
|---------------------|---|
| <b>Capacity</b>     | 16 cylinder channels<br>4 turbocharger inlets<br>4 turbocharger outlets |
| <b>Inputs</b>       | 2 wire 4-20mA current loops Short circuit protected                     |
| <b>Power Supply</b> | 24v DC, 110v AC, 250v AC or 440v AC                                     |
| <b>Accuracy</b>     | ±1% of full-scale   |

### ENVIRONMENTAL

|                               |                       |
|-------------------------------|-----------------------|
| <b>Operating Temp</b>         | -10°C to 50°C ambient |
| <b>Housing</b>                | Sealed, painted steel |
| <b>Data Transmission Port</b> | RS 232 C              |

Shock / Vibration tested to MOD(N) specification

398°C



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