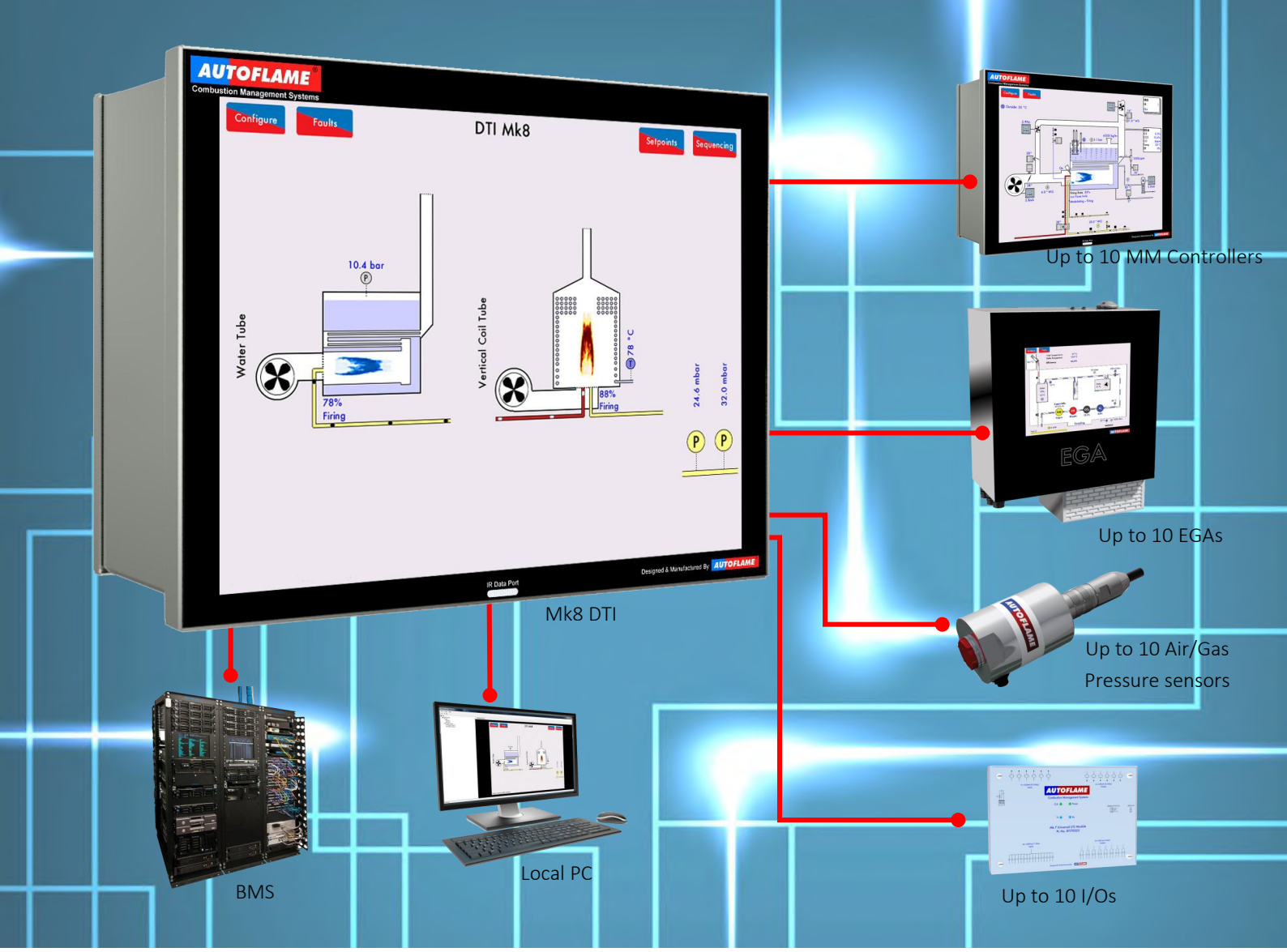


Monitor up to 10 Boilers Remotely

Efficiently Manage your Boiler House from a Local PC or BMS

Overview

The Mk8 DTI (Data Transfer Interface) lets users know in real time how the boilers are performing, either on-site through its built-in touch screen, via a local PC, or remotely via a BMS system. It stores MM and EGA system data for a rolling 2 year period.

The DTI is a gateway for communicating with the Autoflame MM Controller and/or EGA range of products. The DTI collects and stores information from a maximum of 10 Autoflame Systems in one location. The information gathered is instantly available for transmission to an external source such as a BMS via RS422 or Ethernet link. The Mk8 DTI also includes Autoflame DTI Manager software as standard, allowing data collection over a local network or over the internet. The Mk8 DTI also supports the Modbus protocol over Ethernet and RS422 as standard.

Main Features

The DTI can collect information from up to 10 of each of the following Autoflame products:

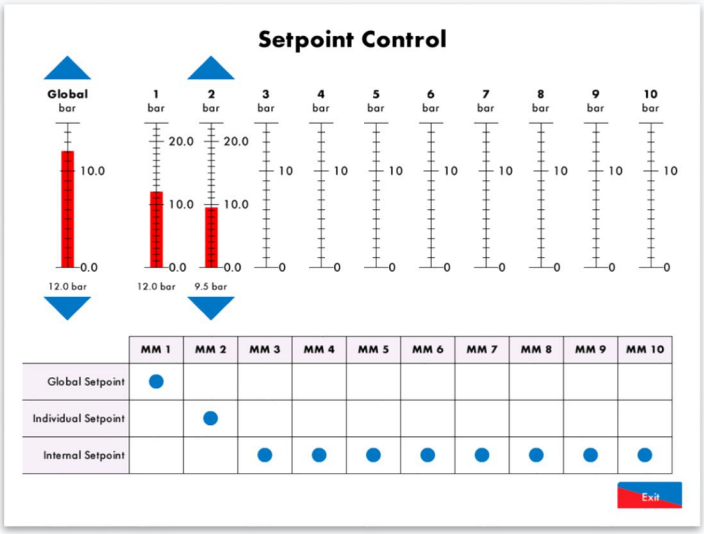
- Mk8 MM Controller, Mini Mk8 MM Controller or any combination
- Autoflame Mk8 Exhaust Gas Analyser (EGA) linked directly to the DTI
- Pressure sensor network – connect and monitor Autoflame Mk8 digital Gas or Air pressure sensors, with two years of data logs
- Input/Output modules with both analogue and digital connections
- Network Emails generated in the case of a fault or alarm

DTI Mk8: Data Transfer Interface

AUTOFLAME®

Benefits

- Mk8 DTI offers the benefit of Remote Connection of the boiler house to an external PC or to Building Management System (BMS) via Modbus
- Mk8 DTI can be used to efficiently manage the entire boiler house's lead\lag running order by using shuffle sequencing
- User defined automatic rotation of lead boiler on a user-defined schedule (hours, days or weeks apart)
- Alarm setup option for gas sensor's low/high pressure limits
- There are up to 1000 items of information that are viewable via the DTI from each MM Controller & EGA
- DTI Configuration upload/download via Infrared (Bluetooth to follow)
- 12.1" capacitive multi-touch screen display showing the boiler room: MMs, EGAs, Pressure Sensors, IO Units
- Software for remote viewing of the DTI for Windows PCs (Android & IOS support planned)
- On-screen native language support allows users to control the boiler house in English, Chinese, German and other languages



MM Controller Data (Viewable & Stored within the Mk8 DTI for Two Years):

- Required and actual boiler temperature or pressure
- Burner firing rate (%)
- Firing rate control
- Fuel selected & flow metering values
- Number of control channels optioned showing both actual & commissioned positions
- Setpoint control from DTI
- Sequence status (on, stand-by, warm, off) & lead boiler status
- The DTI also shows the MM's and EGA's options and parameters
- Enable/disabled status & error conditions
- Alarm status
- First out annunciation
- Expansion features

Flame Safeguard Functions

- Burner firing status (off, firing, purge, ignition, offline)
- Hours run & number of start-ups
- Lockout status
- Flame scanner signal
- Gas pressure (online & commissioned)
- Oil pressure (online & commissioned)
- Air pressure (online & commissioned)
- Draft pressure (online & commissioned)

Boiler Control Functions

- Operational information: steam pressure and feed water temperature
- Feed water pump status and valve position
- Water level probe information: temperature, signal value
- Steam flow metering data
- Total Dissolved Solids (TDS) data
- Bottom Blowdown status

EGA Data (Viewable & Stored within the Mk8 DTI for 2 Years)

- O_2 , CO_2 , CO, NO, SO_2 & NO_2 percentage & ppm values
- Exhaust temperature, combustion efficiency, fuel consumption & emissions auditing data
- EGA error conditions
- Flow-metering & on-line Exhaust Gas Analysis data, both instantaneous & totalised for: O_2, CO_2, H_2O, NO, CO, SO_2, N_2, total emissions as a weight, & corresponding volume at exhaust exit temperature & pressure
- Heat input, heat loss & net useful heat
- Net efficiency, gross efficiency & temperature change
- Fuel flow per hour & fuel flow totalised
- Calculated cost of fuel used

Mk8 DTI Input Values

The following settings may be modified in individual MM Controllers via the DTI:

- Alter setpoint (individual & global)
- Enable/disable burner
- Re-order boiler sequencing
- Select lead boiler
- Remote firing rate control

Connectivity

The Autoflame network operates using a two-core screened cable up to 1 Km. The DTI assesses each item on the network periodically, storing up-to-date information on the DTI and outputs to defined Modbus addresses. These are then available to third party systems. The DTI features dedicated data ports for RS422 & Ethernet connections. The 12.1" touch-screen displays the operational status of the DTI's communications, with corresponding error conditions in the event of a communication failure.

Autoflame DTI Manager Software

- Ability to view live streamed data through a Mk8 MM Controller screen & EGA screen
- Ability to extract EGA CEMS data into an excel file
- Remote or local control
- Remote connection to DTI over internet or LAN

The data is sampled at 1 minute intervals & stored on an SD Card within the Mk8 DTI.

Autoflame Engineering Ltd
www.autoflame.com
Phone: +44 (0)1959 578 821
Email: salesinfo@autoflame.com

MADE IN BRITAIN

AUTOFLAME