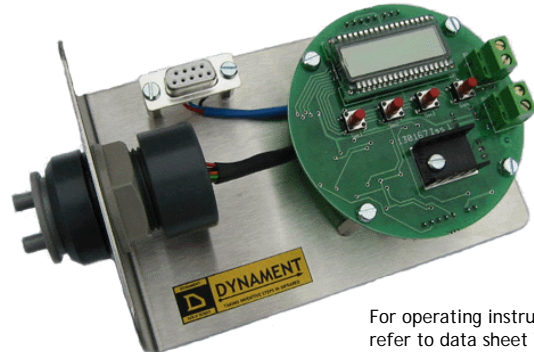




### OEM EVALUATION KIT TYPE OEM -1-K FOR THE *GOLD SERIES* RANGE OF INFRARED SENSORS



For operating instructions, please refer to data sheet TDS 0008

This evaluation kit has been designed by Dynament to provide OEM development engineers with a quick and convenient method of appraising and characterising the *Gold Series* range of infrared sensors. Requiring only a dc power supply, the module provides all the hardware and embedded software necessary to drive the sensor, extract the signals and convert them into a linearised analogue output proportional to gas concentration.

#### FEATURES

- ◆ Requires only a d.c. power supply and test gas to enable full sensor evaluation
- ◆ High resolution 12 bit A-D converter
- ◆ PC software provides data logging facility
- ◆ Pushbutton operation and onboard LCD for simple set-up and calibration
- ◆ 4-20mA analogue output, 10 bit, with current limit and polarity protection
- ◆ Data collection mode and RS232 data output facility remote monitoring and data logging
- ◆ Polarity protected input for single 8-30V, 70mA dc supply
- ◆ Kit includes: sensor mounting, gas sampling adaptor, RS232 lead and PC software

#### DESCRIPTION OF OPERATION

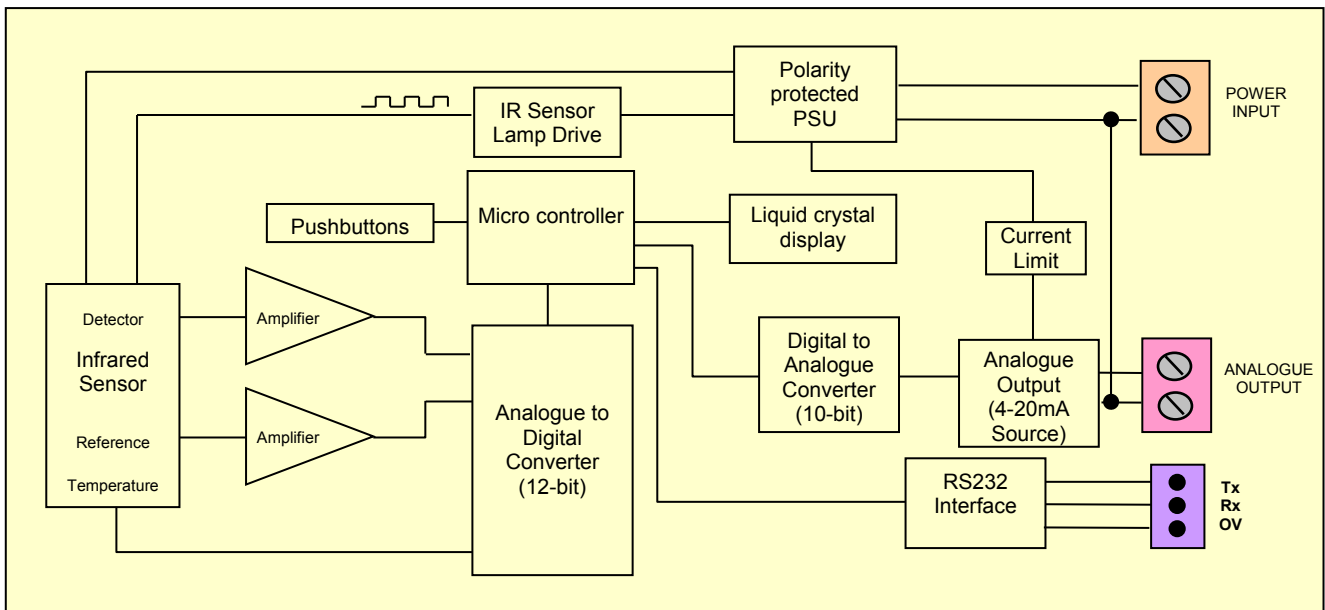
The circuitry provides a regulated, 4Hz. square-wave drive to the sensor's lamp. The resulting signals from the sensor's Detector and Reference outputs are amplified to a suitable level and processed by the A/D converter. Using the program appropriate to the type of sensor selected by the user, the microcontroller uses the signals from the sensor to provide a linearised drive to the analogue output circuit.

In order to calibrate the OEM module, it is necessary to present a "zero" gas sample and a "span" gas sample to the sensor. There are 4 pushbuttons and a 4 digit display on the OEM module. These enable the user to select from the following options:

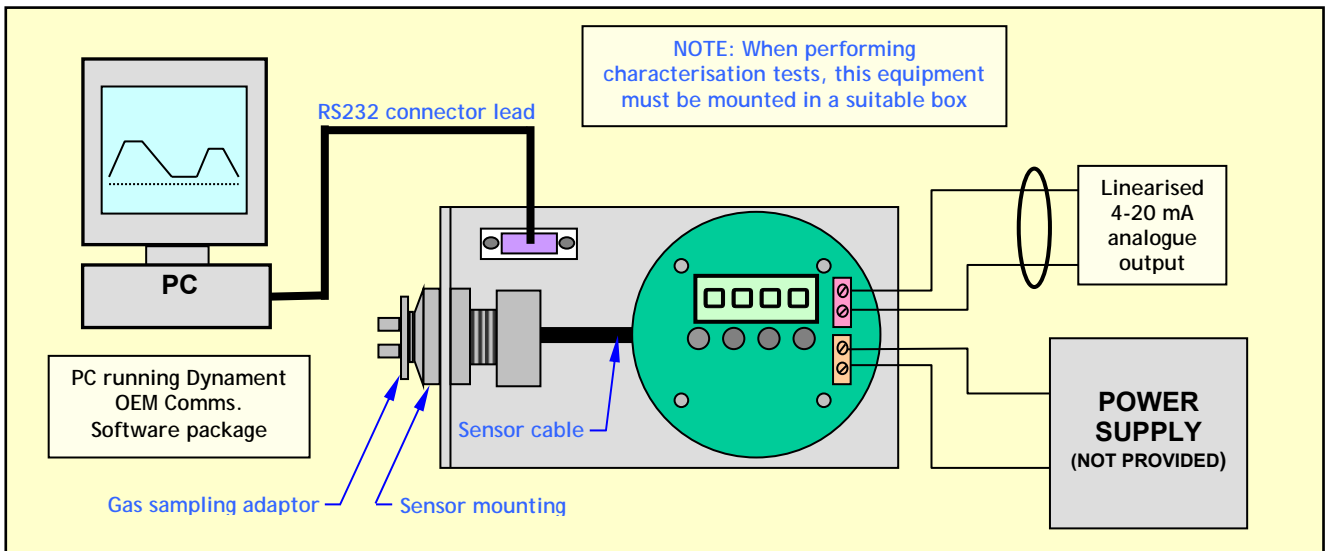
- ◆ Sensor type select i.e. Carbon Dioxide, Methane etc.
- ◆ Sensor zero mode
- ◆ Sensor span mode
- ◆ Analogue Output zero mode
- ◆ Analogue Output span mode
- ◆ Run mode: Display indicates gas concentration level
- ◆ Data observation mode: Display cycles between Detector, Reference and Temperature readings

Refer to the operating manual supplied with the module for further details.

**MODULE BLOCK DIAGRAM**



**EVALUATION AND CHARACTERISATION ARRANGEMENT**



**ORDERING INFORMATION**

ITEM	DYNAMENT PART NUMBER	
OEM EVALUATION KIT (INCLUDES ALL ITEMS BELOW)	OEM – 1 - K	
SENSOR CABLE AND CONNECTOR	OEM – 1 - CABLE ( 130mm, 5.1”)	REFER TO DATA SHEET TDS 0009 FOR FURTHER DETAILS ON THESE ITEMS
SENSOR MOUNTING	OEM – 1 - MTG	
GAS SAMPLING ADAPTOR	OEM – 1 - ADTR	
RS232 CONNECTION LEAD	OEM – 1 - LEAD	

**NOTE: INFRARED SENSORS ARE SUPPLIED SEPARATELY, REFER TO SENSOR DATA SHEETS FOR ORDERING INFORMATION**

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