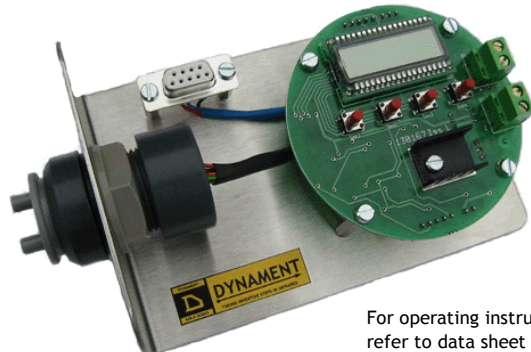




OEM EVALUATION KIT TYPE OEM -1-K FOR THE **GOLD SERIES** RANGE OF INFRARED SENSORS



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

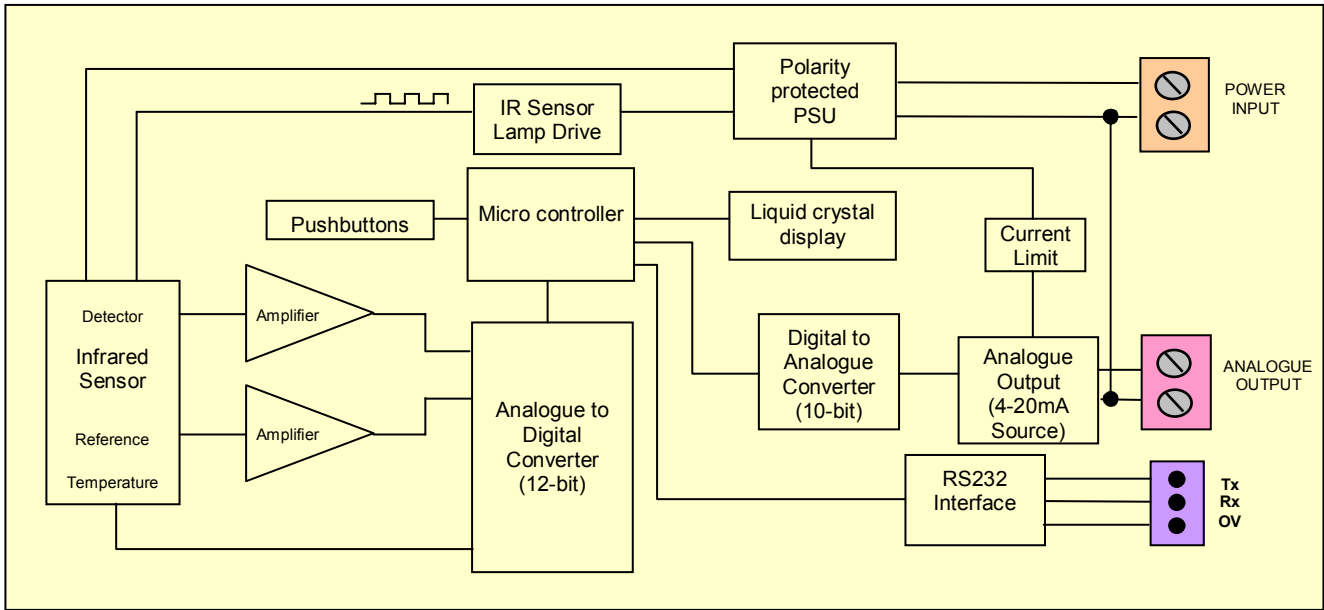
The circuitry provides a regulated, 4Hz. square-wave drive to the sensor's lamp. The resulting signals from the sensor's Detector and Reference outputs are amplified to a suitable level and processed by the A/D converter. Using the program appropriate to the type of sensor selected by the user, the microcontroller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

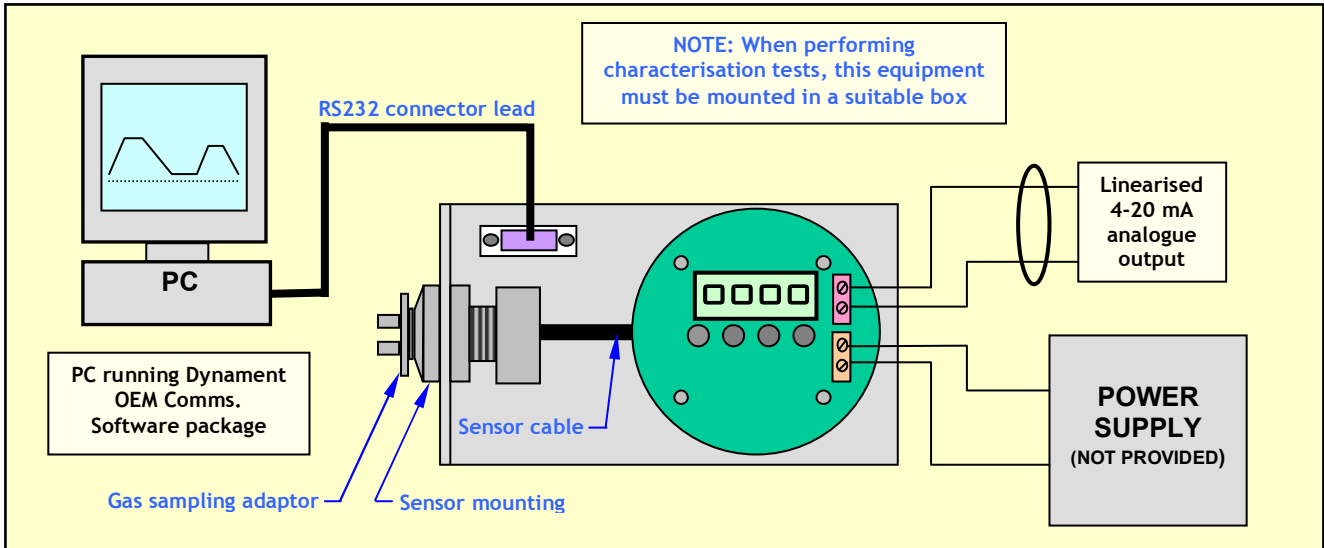
- ◆ Sensor type select i.e. Carbon Dioxide, Methane etc.
- ◆ Sensor zero mode
- ◆ Sensor span mode
- ◆ Analogue Output zero mode
- ◆ Analogue Output span mode
- ◆ Run mode: Display indicates gas concentration level
- ◆ Data observation mode: Display cycles between Detector, Reference and Temperature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