## Technical Sheet ref C1180Tv.5



NEW UNITS ARE SUPPLIED READY TO CONNECT TO A SYSTEM. THE FOLLOWING PROCEDURE MAY NEED TO BE CARRIED OUT FOLLOWING CHANGES TO THE SYSTEM:

- 1. Insert J8 jumper to receive signal from external 4~20mA source (Fig.3)
- 2. Connect external 4~20mA source to the 4~20mA input terminal (J11) on the right hand side of the board as shown in Fig. 2 (For call point/E-Stop see Fig.4)
- 3. Connect terminal J10 as shown in Fig.2
- 4. Connect DVM (mV range) across TP7 + TP15 to measure current supplied by 4~20mA device (mV = mA)
- 5. Ensure that the CAN LED is ON and flashing occasionally.
- 6. Connect RS232 micro USB or for earlier models Combi adapter (part no. 160-510) and lead (part no. 160-515) to J3 connector and to a PC running HyperTerminal at 4800 baud.
- 7. The HyperTerminal display shows a continuous data output and allows input from the PC keyboard. a. Press C to enter calibration mode
  - b. Press shift \$ to initialise the memory if new PCB (defaults to Flam %LEL)
  - c. Press G to change gas/signal to the type required for the cell/unit in use. (NOTE: When using a 'user gas' press 'E' to edit name after using 'G' to select. Also make sure to select a vacant user gas number, 61-68, as the addressable sensor will overwrite data entered at the Combi panel.
  - d. The range of the gas/signal selected will have a default setting which can be changed by pressing 'R'
  - e. Press A and enter CAN address of this sensor
  - f. Press N to toggle the number of decimal places between 1 and 2 (i.e. dp=1 or dp=2)
  - g. Press B to toggle the deadband ON and OFF
  - h. Press F to toggle the external fault option ON or OFF (only available when external source has local fault indication)
  - i. With input signal reading 4mA press Z to zero the reading.

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- j. Press S to span the reading. Apply gas / signal from external source and press H or L to adjust the reading.
- k. Press space to exit the span.
- l. Press X to exit the calibration mode.
- 8. Connect to a combi panel and ensure that the sensor reports in correctly. Note: that if this sensor is at the end of the communication wires then it will need terminating by inserting jumper J1(EOL). The continuous data output when connected to HyperTerminal is the same format as for the Flammable sensor. The software used is identical.

## Command

Commanu	USE
A = Set CAN address G = Select gas type	Sets the CAN address Select the gas type from a list
Z = Zero	Press when no gas on sensor to give zero
S = Span	Use when calibration gas applied,
H and L change reading	
D = Enter calibration date	Enter the calibration date
Y = Toggle auto zero	Auto zero is ON or OFF, small drift is cleared
H = Set high alarm	Sets the high alarm threshold
L = Set low alarm	Sets the low alarm threshold
0 = Set over range alarm	Sets the over range alarm threshold
P = List command	List these commands on screen
X = Exit calibration mode	Exit this PC mode
<pre>\$ = Initialise this sensor</pre>	Use on new PCB to set gas type to Flam
U = Alarm direction	Sets rising or falling alarms
R = Range	Allows a change in maximum value
N = Decimal points	Toggles between 1 and 2 decimal places
E = Edit user gas text	Choose gas description
B = Toggle deadband	Deadband of 2.5% can be on or off
F = Toggle fault Input	External fault input contact can be disabled
<pre># = Normally energised</pre>	Low /high alarm relays and fault relay can be made normally energised
V= View gas log	From current log, display how many historical readings to display, up to 2880
% = Clear gas log	Set all 2880 log readings to 0.00
I = Log interval	Choose how many seconds between each log reading and whether the log will roll
	over or stop at 2880 (60 second interval and 2880 readings = 48 hours)



FIG.1







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