

## COMMISSIONING CARD OF MOD. 530/NR/FID, BTEX ANALYSER

We congratulate with you for choosing our equipment. As soon as you receive Mod. 530/NR/FID/BTEX please check that instrument did not suffer from mechanical damages during shipment. Next, open the top cover and check that inner parts are regularly fixed to their support, particularly for electronic boards, ICs and sockets.

In order to work correctly Mod. 530/NR/FID will need the supply of following gases (regulating gauge access behind the front door):

Gas	Scope	Specs	Source	Pressure from source ( < 6 Bar)	Connections on rear panel	Checked Pressure on Mod. 530/NR gauges
H <sub>2</sub>	FID supply	Pure (99.9999) HC <0.01 ppm	Gas cylinder or H <sub>2</sub> generator	≥ 2.5 Bar (≥ 36 Psi)	H <sub>2</sub>	See final check record
Pure Air	FID supply and carrier gas	HC <0.01 ppm	Gas cylinder Air generator with hot efficient scrubber	≥ 2.5 Bar (≥ 36 Psi)	AIR FID	See final check record
N <sub>2</sub>	Carrier Gas	Pure (99.9999) HC <0.01 ppm O <sub>2</sub> < 0.01%	Gas cylinder (better) Or N <sub>2</sub> Generator	≥ 2.5 Bar (≥ 36 Psi)	N <sub>2</sub>	See final check record
Instrument air	Activation of 8 port valve	Dry instrument air	Air compressor (gas cylinder)	≥ 4.5 Bar (≥ 65 Psi)	AIR SUP	No indication
Calibration Mixture	Check or calibrate BTEX	Mixture must be with air balance (suggested, 60 – 80% Range ppb)	Certified gas cylinder or from multi point calibrator	Vented (Ambient pressure)	SPAN	Low pressure (0.1 Bar, 1.5 psi) better if vented

### Please note:

- 1) Supply instrument with the correct Power Voltage, see the rear tag.
- 2) Connect gas supplies as indicated above.
- 3) With FID instruments, for high reproducibility, good quality air supply (HC < 0.1 ppm ) is a must.
- 4) If you use a poor air quality the peaks will be influence. The reproducibility and the precision will be reduced.
- 5) The full control of instrument operativity is guaranteed by a use friendly menu on the colour touch screen.
- 6) After the switching ON, wait till instrument warms up (some 15-20 minutes) then, if the instrument is not set for automatic ignition, Ignite FID by pressing IGNITE icon. After FID ignition, FID alarm disappears and STAND BY on display is shown.
- 7) By pressing MONITOR the instrument starts working, on line, performing regular analysis.
- 8) Whenever you chose a new working mode of the instrument, the same ends the cycle under operation then it enters in the new operating mode.
- 9) To Upload and/or download configuration of the instrument please follow the steps shown in the menu.

## CALIBRATION OF MOD. 529/NR/FID, BTEX ANALYSER

FID is an extremely stable detector. Do not fiddle around with calibration procedures unless you feel it necessary, leave the instrument working continuously for a few days then you may check or perform a calibration.

The instrument is configured to be calibrated by a low concentration gas cylinder. If you calibrate with a multi-point calibrator either you enter through the sample line and close the CAL/ZERO pneumatic ports or vice versa, as to avoid mixing of flows.

### Calibration check

You do not modify the Calibration corrector factors (JKal), you just check the calibration of ZERO and SPAN.

Follow the instructions once you selected ZERO and/or SPAN.

Remember that you must enter the instrument with vented sample or very low pressure.

### Full Calibration (the Jcal, ADJ, will be updated).

- 1) The instrument is on line [MONITOR]; it is working regularly on sample gas.
- 2) Supply the calibration mixture either from gas cylinder or from a diluter (in the latter case the AMPLE or SPAN port must be closed)
- 3) Select SPAN or ZERO and proceed as indicated by the interactive menu.
- 4) Once the instrument is calibrated closed the SPAN/ZERO sources.

### I/O electrical connection

RS 232-485, as from international standards.

Ethernet/LAN, as from international standards.

DIGITAL OUTPUTS (clean contacts  
normally closed/open according to  
the setting from front panel touch screen.)

From bottom up:

- 1-2 Flame OFF alarm
- 3-4 ZERO status
- 5-6 SPAN status
- 7-8 MONITOR status
- 9-10 Range x1 no contact
- 11-12 Range x10
- 13-14 Range x100
- 15-16 Range x1,000
- 17-18 Not in use

#### REMOTE COMMANDS

From bottom up of the block

- 1 +24Vdc
- 2 +24Vdc
- 3 CSR in (not in use)
- 4 SPAN calibration
- 5 Zero calibration

#### ANALOG OUTPUTS

(0-1/10 Vdc or 0/4-20 mA, set from rear panel and front  
panel, touch screen)

From bottom up:

- 1- Channel 1
- 2- GND
- 3- Channel 2
- 4- GND
- 5- Channel 3
- 6- GND
- 7- Channel 4
- 8- GND
- 9- Channel 5
- 10- GND
- 11- Channel 6
- 12- GND
- 13- Channel 7
- 14- GND
- 15- Channel 8
- 16- GND