

## DET NPD/TID/FID RETROFITS FOR DIFFERENT GC MODELS

DET retrofits consist of a stainless steel/ceramic tower that custom mounts onto the existing FID/NPD base on the GC. The tower can accommodate DET hex flanged ion sources such that the ion source is positioned on the axis of a collector electrode cylinder. This concentric cylinder geometry provides a streamlined gas flow through the detector, and an optimum electric field for ion collection. For a complete detector, add an Ion Source to the following assemblies.

### THERMO TRACE GC:

#### **NPD/TID/FID Tower Assembly, part #010-860-55,**

DET hardware and ion sources are compatible with Thermo's NPD electronics which provides Constant Current ion source heating and a wide range of polarization voltage selections. This combination of DET hardware and Thermo NPD electronics provides the most versatile NPD/TID detection currently available. Different modes of detection are achieved by simple changes in the type of ion source, and in the type of detector gases.

### VARIAN GC MODELS:

#### **NPD/TID/FID Tower Assembly, part #010-860-20,**

DET hardware and ion sources are compatible with Varian's TSD electronics which provides Constant Current ion source heating at a fixed polarization of - 4 V. For modes of detection other than NPD, a stand-alone DET Constant Current Supply provides a selection of higher polarization voltages which provide more sensitive detection than the Varian supply.

#### **optional DET Current Supply, part #001-901-01 (115Vac),**

### SRI INSTRUMENTS:

#### **NPD/TID/FID Tower Assembly, part #050-864-98,**

DET hardware is compatible with signal measurement using SRI's FID/NPD amplifier. DET ion sources with a bare wire termination can be powered with SRI's NPD electronics, but setting power levels is not very user friendly. An improvement is to use the stand-alone DET Current Supply described above, and ion sources with a Twinex connector as is standard on Agilent, Thermo, and Varian instruments.

### HP 5890 (same equipment fits the FID base on an Agilent 6890):

#### **NPD/TID/Remote FID/FTID Tower Assembly, part #040-862-12,**

DET hardware is not compatible with the 5890 detector electronics, so the stand-alone DET Current Supply and a stand-alone Electrometer (Keithley 6480 Picoammeter recommended) are required. In addition to NPD and TID modes, this equipment can be used for a Remote FID mode for selective detection of P, Sn, Pb, and Si, or an FTID mode for selectivity to N and Cl.

#### **DET Current Supply as above, Keithley Picoammeter,**