

Konik Detection Systems

FLAME IONIZATION DETECTOR (FID)

Detection of general organics with universal response.

Detection Limit: 10^{-12} g C/sec of Methyl Stearate
Linearity: $> 10^7$
Temperature Limit: 400°C

THERMAL CONDUCTIVITY DETECTOR (TCD)

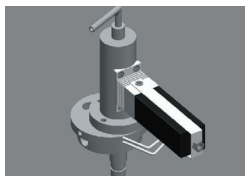
Gas and general detection. KONIK offers a micro TCD cell specially designed for semicapillary (0.3 mm ID) column work.

Detection Limit: 3 nanograms of nonane in He
Linearity: over 10^4
Temperature Limit: 300°C
Filament Current: up to 360 mA with He as carrier (packed columns)
up to 200 mA with He as carrier (semicapillary columns)

ELECTRON CAPTURE DETECTOR (ECD)

Selective detection and high sensitive for halogenated compounds.

Detection Limit: 0.1 picogram of lindane
Linearity: 10^4 (Argon + 5% methane as carrier gas); 10^3 (He or N₂ as carrier gas);
with pulsed electrometer constant current.
Temperature Limit: 400°C
Radiative Source: ⁶³Ni 10 to 15 mCi (β-emitter)



NITROGEN-PHOSPHORUS THERMIONIC DETECTOR (NPD)

Selective detection of nitrogen and phosphorus containing compounds. Based on a protected alkaline bead with shut-off circuit. Compatible electrometer with flame ionization detector.

Detection Limit:	1.4 x 10 ⁻¹³ g N/sec (azobenzene) 1.2 x 10 ⁻¹⁴ g P/sec (malathion)
Linearity:	10 ⁵ for nitrogen and phosphorus
Temperature Limit:	450°C
Selectivity:	10 ⁴ (P)

FLAME PHOTOMETRIC DETECTOR (FPD)

Selective detection and trace amount analysis of sulfur and phosphorus compounds with filters of 393 and 525 nm, respectively.

Detection Limit:	1 x 10 ⁻¹² g S/sec (dodecanethiol) 1 x 10 ⁻¹³ g P/sec (tributylphosphate)
Linearity:	>10 ⁴ (P)
Temperature Limit:	250°C
Selectivity:	10 ⁵ (S); 10 ⁶ (P).

DUAL DETECTOR (FID-FPD)

The FPD detector is also available as a dual detector. With a simple design the detector may operate in FPD mode, FID mode or dual mode. This is done because both detectors use the same flame H₂/air principle.

Detection Limit:	FID: < 5 x 10 ⁻¹² g C/sec FPD: < 1 x 10 ⁻¹² g S/sec (dodecanethiol) < 1 x 10 ⁻¹³ g P/sec (tributylphosphate)
Linearity:	10 ⁴ (P); 10 ⁷ (FID)
Temperature Limit:	250°C
Selectivity:	10 ⁵ (S); 10 ⁶ (P).

Other Detection Systems: Konik offers other type of detectors for specific applications, such as: HECD, PTD, HID as well as benchtop GC-MS.
