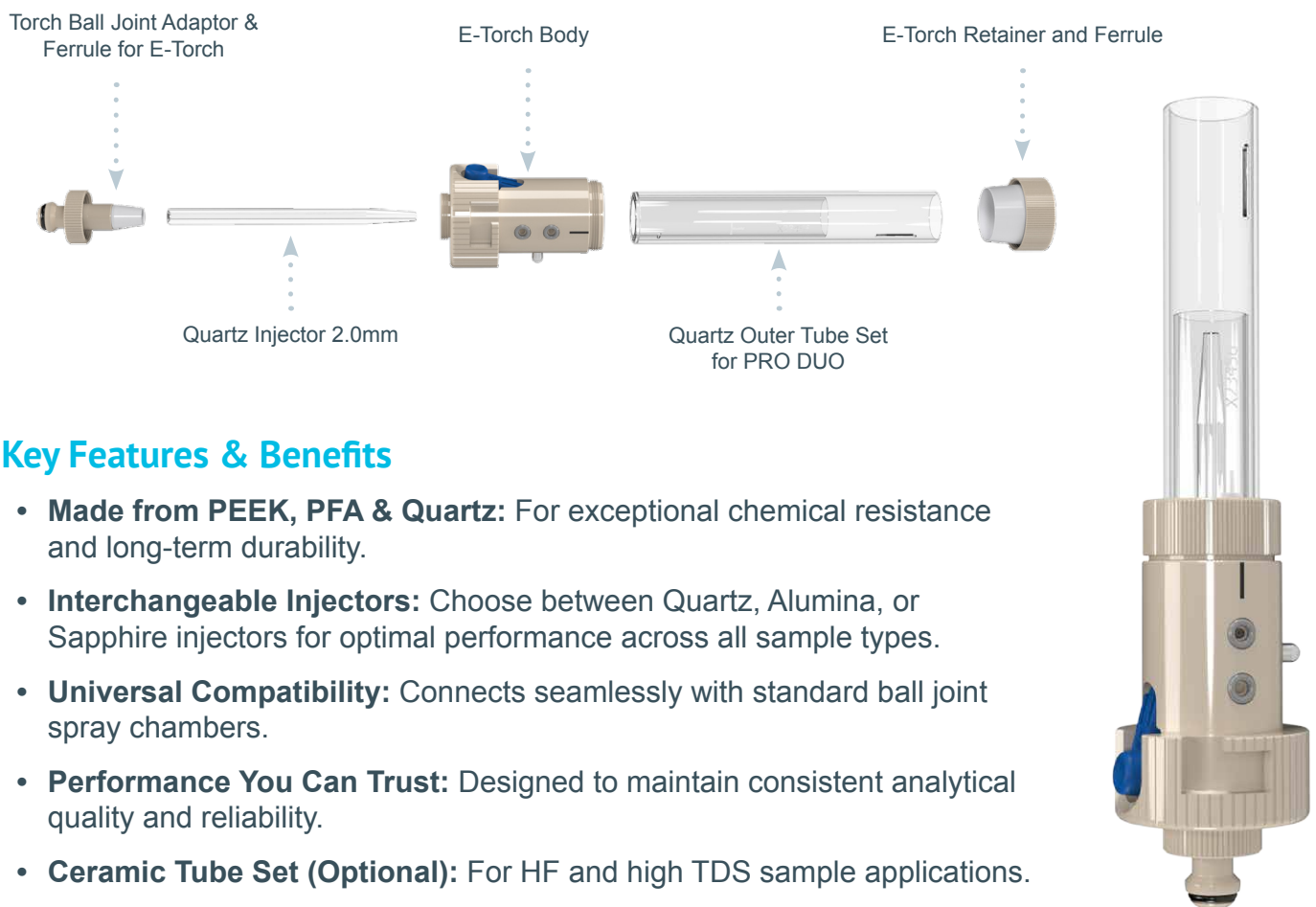


# NEW E-Torch for Thermo Scientific® PRO Series ICP-OES

Engineered from PEEK, PFA, and Quartz, the E-Torch™ delivers high performance and reliability, with enhanced versatility for a wide range of sample types. Its interchangeable injectors (Quartz, Ceramic, Sapphire) and universal ball joint compatibility make it highly adaptable. The optional ceramic tube set supports HF and high TDS applications, while the demountable tube assembly simplifies maintenance and enables oven cleaning of carbon deposits — ensuring consistent analytical performance with reduced operating costs.



## Key Features & Benefits

- **Made from PEEK, PFA & Quartz:** For exceptional chemical resistance and long-term durability.
- **Interchangeable Injectors:** Choose between Quartz, Alumina, or Sapphire injectors for optimal performance across all sample types.
- **Universal Compatibility:** Connects seamlessly with standard ball joint spray chambers.
- **Performance You Can Trust:** Designed to maintain consistent analytical quality and reliability.
- **Ceramic Tube Set (Optional):** For HF and high TDS sample applications.
- **Simplified Maintenance:** The inner and outer tube assembly allows for simplified cleaning and oven removal of carbon deposits, reducing downtime and running costs.
- E-Torch is available for both PRO DUO and Radial models.

E-Torch for Thermo Scientific® PRO DUO

## Ceramic Outer Tube Set

Using a ceramic outer tube on your ICP torch produces a hotter, more robust plasma, which reduces matrix effects and improves detection limits. Compared to a quartz outer tube, the ceramic outer tube has a much longer lifetime, greatly reducing maintenance, cleaning and downtime due to torch failure. In some sample matrices, quartz outer tubes can degrade in hours while the ceramic outer tube may last years under the same conditions.

### The ceramic outer tube is ideal for:

- Analyses at the detection limit as the hotter plasma increases sensitivity.
- Monitoring of wear metals in engine oils, as quartz outer tubes often suffer cracking and shortened lifetimes due to thermal shock.
- Analysis of fusion samples where the lithium salts rapidly attack quartz.
- Measuring high TDS samples that will quickly devitrify the quartz outer tube.

Below is a comparison of Quartz Outer tube set to Ceramic Outer tube set:

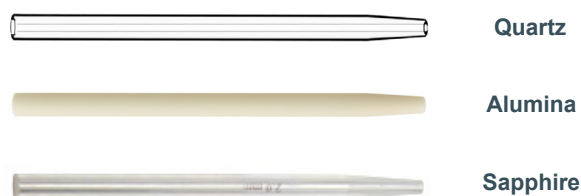
Element	% Increase in Sensitivity	%RSD
Zn (213) $\lambda$	17%	0.36
Ni (231) $\lambda$	19%	0.57
Mn (257) $\lambda$	14%	0.52



Ceramic Outer Tube Set for PRO DUO



Quartz Outer Tube Set for PRO Radial



## Ordering Information for E-Torch

P/N	Description
30-808-4388	E-Torch for Thermo® PRO DUO
30-808-5163	E-Torch for Thermo® PRO Radial

### E-Torch Options

P/N	Description
31-808-4425	E-Torch Body
31-808-4498	E-Torch Retainer Assembly
31-808-4582	Ball Joint Adaptor
70-V-011	Viton O-rings for FDT/SDT ball joints (PKT 10)
31-808-2836	Capillary Quartz Injector 2.0mm (EMT)
31-808-4381	FKM O-Rings (PKT 10)
70-803-6475	Silicone O-rings 22X1.8S70 (PKT 10)

### Outer Tubes

P/N	Description
31-808-4390	Quartz Tube Set for PRO DUO
31-808-4502	Ceramic Tube Set for PRO DUO
31-808-5164	Quartz Tube Set for PRO Radial
31-808-5165	Ceramic Tube Set for PRO Radial

### Tapered Injector Options

P/N	Description
31-808-3511	Quartz Injector 0.75mm
31-808-2833	Quartz Injector 1.0mm
31-808-2834	Quartz Injector 1.5mm

### Capillary Injector Options

P/N	Description
31-808-3510	Quartz Injector 1.0mm
31-808-2836	Quartz Injector 2.0mm
31-808-3246	Quartz Injector 2.5mm
31-808-3247	Quartz Injector 3.0mm
31-808-3279	Alumina Injector 1.0mm
31-808-2835	Alumina Injector 2.0mm
31-808-2977	Sapphire Injector 2.0mm