

Inline Heater

The esPRO® Inline Heater uses a PFA insulated electrical resistive element heater. It is designed to safely heat acids, bases, DI water and other noncombustible liquids up to 180°C.

HIGH EFFICIENCY AND PURITY

HIGH RELIABILITY AND LOW MAINTENANCE

COMPACT SIZE FOR EASE OF INSTALLATION

NO NITROGEN PURGE REQUIRED

SEMI S3, CE & UL COMPLIANT

POWER RANGE: 1.0 - 40.0 kW

GROUND WIRE WITH TANTALUM OR PLATINUM TIP

VARIOUS TYPES OF TEMPERATURE SENSORS AVAILABLE



This series of esPRO® Ultra-Pure Inline Heaters is designed for use in ultrapure environments and industrial fluid heating applications such as Semiconductor-, PCB-, MEMS-, Electronics-, LED-, Flat Panel-, Solar cell Manufacturing, Chemical Processing, Aerospace, Life Science industry and other applications which require the highest standards of purity. Constructed of PVDF or PFA materials, these heaters can be custom designed and built for use with deionized water, acids, and other diverse process chemistries. Our heaters are engineered and made in Germany.

Example of standard Inline Heater configurations

PRODUCT NUMBER	MODEL TYPE	HOUSING MATERIAL	TOTAL KW	VAC	PHASE	AMPS	IN/OUT FITTING	THERMO-COUPLE	GROUND WIRE
ESPRO-LH-T01-A-1-020-G1-A1AP09-3S	T-TYPE	PFA**	2	230	1	8.7	3/4"	Type-J	Platinum
ESPRO-LH-T01-A-1-040-G1-A1AP13-3S	T-TYPE	PFA**	4	230	1	17,4	3/4"	Type-J	Platinum
ESPRO-LH-U01-A-1-040-G1-A1AP0R-5S	U-TYPE	PFA**	4	230	1	17,4	3/4"	Type-J	Platinum
ESPRO-LH-TB2-A-1-060-G1-A1BP0E-3S	T-TYPE	PFA**	6	230	1	26.1	1"	Type-J	Platinum
ESPRO-LH-UB1-A-1-060-G1-A1AP03-5S	U-TYPE	PFA**	6	230	1	26.1	3/4"	Type-J	Platinum
ESPRO-LH-T01-A-1-060-K1-A1AP00-3S	T-TYPE	PFA**	6	400	1	15	3/4"	Type-J	Platinum
ESPRO-LH-TB3-A-1-090-O1-A1AP05-3S	T-TYPE	PFA**	9	480	1	18.8	1"	Type-J	Platinum

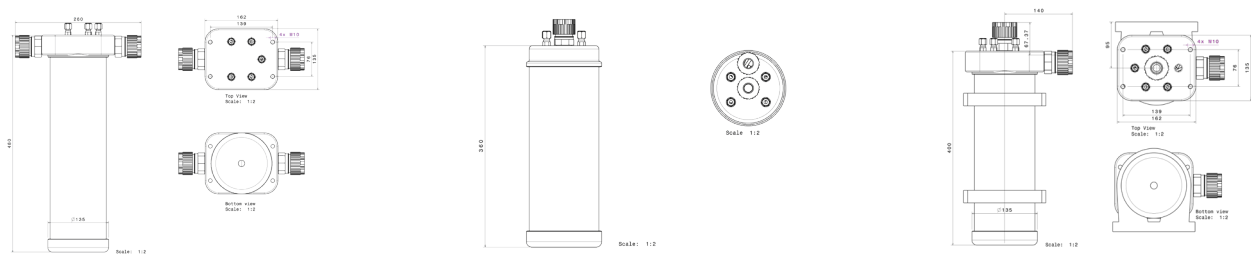
* Custom builds are available.

** Other materials, such as PVDF also available. Please contact us for all options!

Flexible and custom configurations

In addition to our standard configurations, the esPRO® Inline Heaters are also available in custom builds to meet your requirements. Our heaters have a variety of options to comply with your requirements, such as various connections, ground wires, controls, and model types (outlet T, U, Z, I and L or Special design S-Type). These heaters are drop-in and replace products to fit in your existing manufacturing equipment. Please fill out our configuration sheet on www.esproflow.com or contact sales@esproflow.com

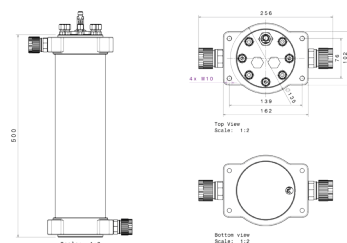
Technical drawings



T-type model

U-type model

L-type model



Z-type model

I-type model



Test reports

All our heaters are delivered including a full individual test report. On the right is an example of a test diagram of general performance for the esPRO® Inline heaters:



Figure 1: Testing of the esPRO® Inline Heaters