

DIL 402 Expedis Classic

Design	Pushrod dilatometer, single or dual system
Furnaces	<ul style="list-style-type: none"> ▪ Fused silica: RT to 1150°C ▪ SiC: RT to 1600°C (optional furnace for fast cooling)
Heating rates	0.001 ... 50 K/min
Cooling systems	Air compressor or connection set (ballistic cooling; only for optional SiC-furnace for fast cooling)
Sample holder systems	<p>Interchangeable, made of fused silica and alumina, in two versions</p> <ul style="list-style-type: none"> ▪ Single system (one pushrod) ▪ System with two pushrods usable in dual or differential mode ▪ Al₂O₃ tension sample holder*
Sample dimensions	<p>Sample length max.: 52 mm</p> <ul style="list-style-type: none"> ▪ Ø 12 mm standard (optional Ø 19 mm max.) ▪ Ø 8 mm in dual sample holder system
Automatic sample length determination	Yes
Displacement system	NanoEye
Temperature accuracy	1 K
Temperature precision	0.1 K
Temperature resolution	0.001 K
Thermal stability (isothermal)	± 0.02 K
Temperature calibration	<ul style="list-style-type: none"> ▪ Via displacement using metal references ▪ c-DTA® (optional, incl. endo/exothermal effects)
Measuring range	± 5000 µm
ΔL Resolution	2 nm (over the entire measuring range)
ΔL/L ₀ Repeatability	0.002 %, absolute value
ΔL/L ₀ Accuracy	0.003 %, absolute value
Force range (load at the sample)	0.01 N ... 3 N (valid for compressive and tensile force depending on the sample holder)
Force resolution	0.001 mN
Gas atmosphere	Inert, oxidizing under static or dynamic conditions
Gas control	1-way, optional 3-way switch
Gas-tight	Yes
Software	Windows 10 Pro® and Enterprise®, Windows 11 Pro® and Enterprise®

* Please note, using the tension sample holder has an influence on the noise behavior.