

Key Technical Data

NETZSCH

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	interchangeable, made of fused silica and alumina, in two versions <ul style="list-style-type: none"> ▪ single system ▪ dual/differential systems ▪ Al₂O₃ Tension Sample Holder
Sample dimensions	Sample length max.: 52 mm <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	<i>NanoEye</i>
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 %
ΔL/L ₀ Accuracy	0.003 %
Force range (load at the sample)	0.01 N ... 3 N
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 7 32/64 bit Professional®, Windows 7 32/64 bit Enterprise®, Windows 7 32/64 bit Ultimate®, Windows 8.1 Pro® and Enterprise®