

Technical Specifications

NETZSCH

FT-IR Coupling Systems					
Coupling system	TG 209 F1 ; TG 209 F3	DSC 404 F1/F3 ; STA 2500 <i>Regulus</i> ; STA 449 F1/F3/F5	PERSEUS® STA 449; PERSEUS® TG 209 F1	TMA 402 F1/F3 ; DIL 402 <i>Expedis Select/Supreme</i>	DSC 204 F1
Temperature range ¹	RT-1000°C (F3) 10°C(RT)-1100°C (F1)	RT-1600°C (<i>Regulus</i> , F5) -150°C-2000°C (F1/F3)	RT-2000°C (STA) RT-1100°C (TGA)	RT-1550°C (TMA) RT-2000°C (DIL)	RT-700°C
Measurements under reduced pressure (for solvent separation)	Yes (F1)	Yes	Yes	Yes	No, atmospheric pressure only
Vacuum-tightness of the complete system	Yes (F1)	Yes	Yes	Yes	No
Additional automatic sample changer operation ²	Yes (F1)	Yes (DSC 404, STA 449) No (<i>Regulus</i>)	Yes	No	Yes
Possible Bruker FT-IR spectrometer types ³	INVENIO	INVENIO	ALPHA	INVENIO	INVENIO
Stand-alone operation of the FT-IR	Yes	Yes	Yes	Yes	Yes
Additional analytical instruments to be coupled	MS or GC-MS (F1)	MS or GC-MS	MS or GC-MS	MS or GC-MS	MS or GC-MS
T _{max} transfer line, transfer tube/ adapter head	230°C/300°C	230°C/300°C	250°C	230°C/300°C	230°C/300°C
Set-up gas cell	Internal or external	Internal or external	Internal	Internal or external	Internal or external
Material gas cell	Stainless steel	Stainless steel	Nickel-coated aluminum	Stainless steel	Stainless steel
Gas cell – path length	123 mm	123 mm	70 mm	123 mm	123 mm
Gas cell – volume	8.7 ml	8.7 ml	5.8 ml	8.7 ml	8.7 ml
Detector ⁴	DLaTGS (internal) or MCT (external)	DLaTGS (internal) or MCT (external)	DLaTGS (internal)	DLaTGS (internal) or MCT (external)	DLaTGS (internal) or MCT (external)

1 For most instruments, variable furnaces are required to cover the stated temperature range

2 Larger Dewar recommended for MCT detector

3 For coupling with FT-IR spectrometers from other suppliers, please contact your NETZSCH representative

4 MCT detector requires LN₂ cooling