Specifications

Uses
The CTS 1 is used for cryogenic trapping of analytes between the pre-column and the analytical column in a dual GC-oven system. When trapping has been completed, analytes are released from the trap using a highly accurate temperature program ensuring the best possible introduction to the analytical column for optimal analyte separation and detection limits. Analytes can be concentrated from multiple injections onto the pre-column and subsequently separated and determined in one run on the analytical column helping to achieve better limits of detection.

System Configuration
• compatible with Agilent® Technologies GC 6890 and 7890
• fitting for capillary columns with 1 mm outer diameter
• used as a cryotrap for GERSTEL Multidimensional Column Switching System MCS

Thermostated Zones
• 1 combined zone that can be cooled or heated, length 5 cm
• 2 heated transfer lines each 24.5 cm long

Cooling Option
• LN$_2$ cooling *)

Temperature Programming
• 2 temperature ramps
• second ramp starts satellite GC
• heating rate 0.5 … 20 °C/s
• initial temperature -150 … 400 °C
• 1. hold temperature -150 … 400 °C
• 2. hold temperature 0 … 400 °C
• hold time maximum 650 min for each hold temperature

Control
• C505 or C506 controller based
• in combination with the GERSTEL MAESTRO software, integrated in the Agilent® Technologies ChemStation software or operated in stand-alone mode
• only one method and one sequence table required for the complete system including GC/MS when integrated in the ChemStation software
• hardware start signal for the 2nd GC-oven is provided by the CTS 1 ensuring optimal synchronization of the two GC-ovens

Operating Conditions
• 15 … 35 °C
• relative humidity max. 50-60%, non-condensing
• max. 4615 m above sea level

Storage Conditions
• -20 … 50 °C
• relative humidity max. 50-60%, non-condensing
• max. 4615 m above sea level

Dimensions
• total length approx. 54 cm
• distance between the GCs approx. 25 cm
• outer diameter approx. 5.7 cm

Weight
• 1.25 kg

Cryo Trap Enrichment System
• CTE 1
The Cryo Trap Enrichment System CTE 1 consists of a CTS 1 and a pneumatic module that enables venting of the pre-column effluent combined with separate pneumatic control of the analytical column.

*) Dewar vessel with 1.0–2.0 bar operating pressure mandatory.