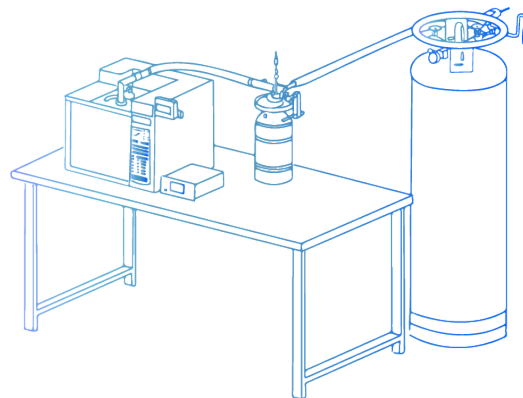


# ZX1 Thermal Modulator

For Agilent GC's



## FEATURES

- Consists of the following modules:
  - Floor Dewar\*
  - Bench Dewar
  - Liquid Nitrogen Level Controller
  - Programmable Logic Controller (PLC)
  - Human-Machine Interface (HMI)
  - Valve Assembly
  - Top Plate Assembly
  - Vacuum Insulated Transfer Line
  - Head Clamp Assembly
- All cables, hoses, and assembly tools are supplied.
- Modulates nC6 – nC30 routinely, and up to nC45 with cold jet flow control. \*\*
- Accommodates Two Parallel Column Sets (“two modulators for the price of one”).
- Compatible with most commercially available GC systems.
- No moving parts. High reliability.
- Open in-oven construction. No modulation chamber.
- Effortless Modulator Tube Mounting.
- May be supplied turnkey with GC, or retrofitted onto user’s GC.
- Users can self-install the system in as little as 2 hours.

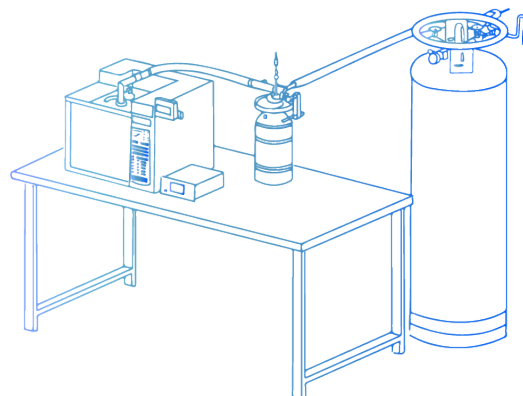
\* User-supplied.

\*\* Contact Zoex for more information.

**Notice:** Due to COVID-19 restrictions, user must install system in house. Installation requires approximately 1-2 hours. Detailed installation videos and phone support provided.

# ZX1 Thermal Modulator

For Agilent GC's



## SPECIFICATIONS

### GENERAL

Two-stage loop modulation; one cold jet and one hot jet	-
No moving parts	-
Hot Jet Temperature	<b>Up to 450 °C</b>
Cold Jet Temperature	<b>As low as -189 °C</b>

Hot Jet Pulse Duration	<b>Set range: 0 to 32 secs</b> 375 ms typical
Modulation Period	<b>Set range: 0 to 32 secs</b> <b>Recommended: 3 to 32 secs</b> Note: Modulation Period should be greater than the Hot Jet Pulse Duration
Jet Gas Consumption (Dry N <sub>2</sub> )	<b>25 SLM per jet max</b> 10 to 15 SLM typical

### CRYOGENIC COOLING SYSTEM

Liquid nitrogen heat exchange bath	-
Lowest cooling temperature	<b>-189 °C</b> (Measured 5 cm inside Cold Jet Nozzle)
Flexible Vacuum Insulated Transfer Line	<b>36" (914 mm).</b> <b>Custom lengths available.</b>
Bench Top Heat Exchange Dewar	<b>5 Liter, 24" h (610 mm)</b>

### AUTOMATIC LIQUID NITROGEN LEVEL CONTROLLER

Display	<b>4.3" 24-bit color TFT display, 480 x 272 pixels</b> Resistive touch screen
Dimensions	<b>3.8" h x 8.4" w x 11.4" d</b> (97 mm h x 213 mm w x 279 mm d)
Weight	<b>3.3 lbs / 1.5 kg</b>
Electrical	<b>100-240 ± 10% VAC, 50- 60 Hz, 2.2 A Max</b>