

# LDCRYO



## CRYOGENIC TRAP SYSTEM FOR GC HELIUM CARRIER GAS PURITY



The LDCryo is a stand-alone system used to generate 99.9999999% Helium purity carrier gas (Argon removal included) when used in combination with our LDP1000/LDP2000 heated gas purifier series. The system includes our pressure monitoring LDPMS device with a purge/bypass valve arrangement. Both, Stainless Steel traps are mounted in parallel in a 50 liters Dewar to ensure rotation and continuous carrier supply without interruption. The complete system is configured with VCR and welded gas connections.

## APPLICATIONS

- Semiconductor & electronics gases

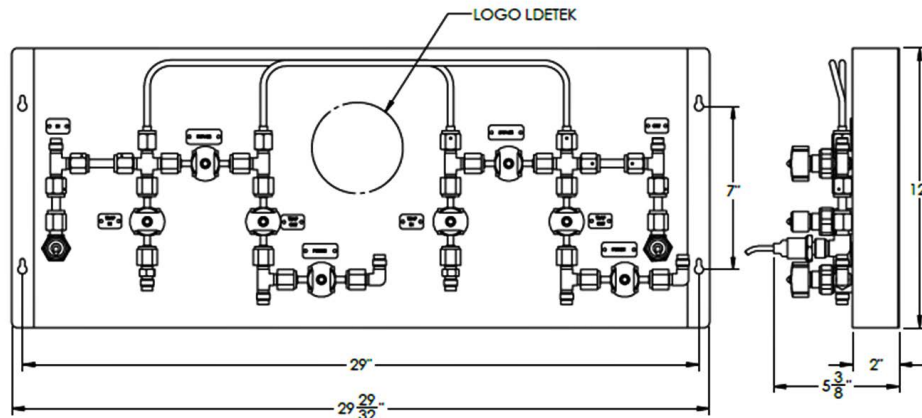
## SPECIFICATIONS:

<b>PRESSURE SENSOR RANGE</b>	0-200psig (0-25bar)
<b>PRESSURE SENSOR MATERIAL</b>	Stainless Steel with media-isolated metal diaphragm
<b>PRESSURE SENSOR GAS CONNECTION</b>	1/4 NPT
<b>PURGE/ISOLATION/BYPASS VALVES</b>	1/4" VCR (model ¼ turn blue handle)
<b>FLEXIBLE HOSES</b>	Stainless Steel
<b>MOUNTING PLATE</b>	Stainless Steel
<b>GAS INLET PORT</b>	1/4" VCR male
<b>GAS OUTLET PORT</b>	1/4" VCR male
<b>PRESSURE SENSOR RATED</b>	IP65
<b>DEWAR SIZE</b>	50 Liters
<b>MAX FLOW RATE CAPACITY</b>	5LPM (Helium)
<b>LIQUID NITROGEN REFILL REQUIREMENT</b>	4-8 weeks (application dependent)
<b>TRAP LIFETIME (REGENERATION INTERVAL)</b>	3-6 months (application dependent)
<b>RECOMMENDED OPERATING PRESSURE</b>	100PSIG (6.89Bar)

### LDPMS MODULE

<b>ACCURACY</b>	+/-0.25% full scale
<b>OPERATING VOLTAGE</b>	85 ~ 264VAC
<b>OPERATING CURRENT</b>	< 0.1A
<b>OPERATING FREQUENCY</b>	50-60Hz
<b>RELAY OUTPUTS (4X)</b>	Dry contact N.O & N.C <ul style="list-style-type: none"> <li>• Relay 1: Status system working</li> <li>• Relay 2: Gas inlet low pressure alarm</li> <li>• Relay 3: Gas outlet low pressure alarm</li> <li>• Relay 4: Inlet &amp; outlet low pressure alarm with buzzer</li> </ul>
<b>COMMUNICATION</b>	Serial port RS232 with Modbus RTU (male DB9 connector)
<b>OPERATING TEMPERATURE</b>	-20 °C to 70 °C (-4 °F to 158 °F)
<b>OPERATING TEMPERATURE FOR PRESSURE SENSORS</b>	-40 °C to 125 °C (-40 °F to 257 °F)

## DIMENSIONS

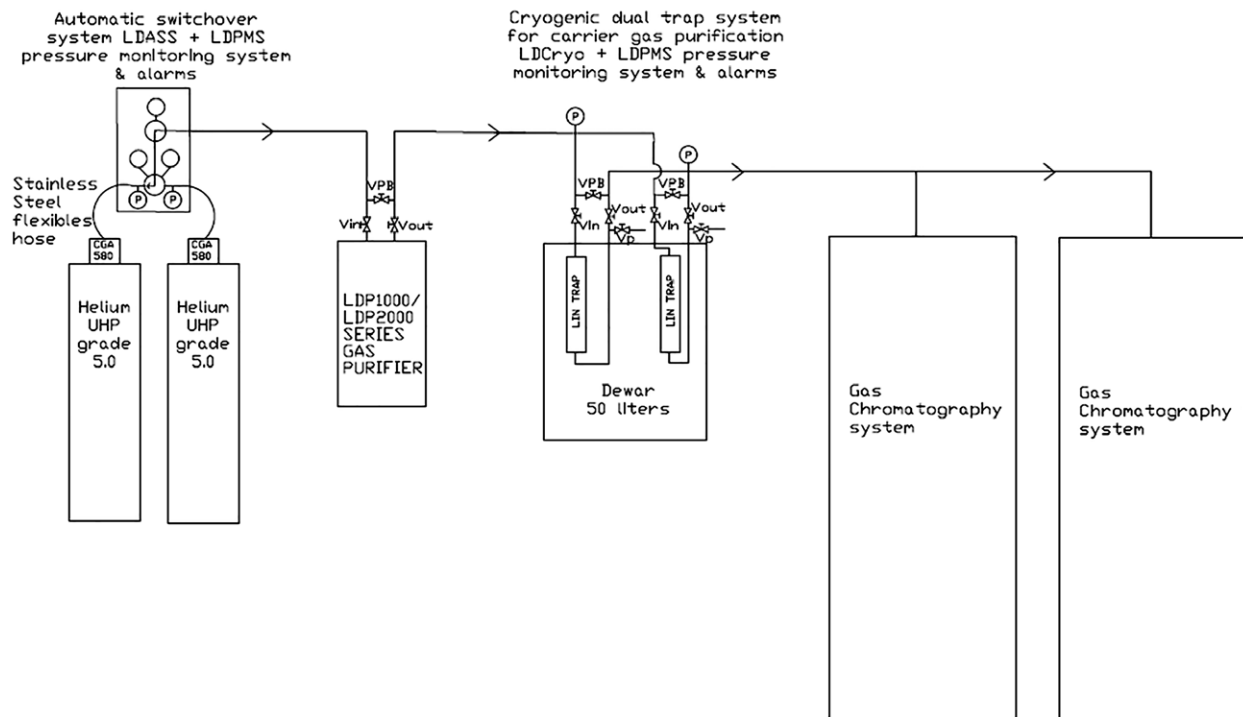


## TYPICAL INSTALLATION

The LDCryo system comes with a single trap or with dual trap configuration. In its most common dual trap configuration, both traps are mounted in parallel and can be replaced periodically when the trap is blocked. The LDMPS pressure monitoring system monitor the pressure at its inlet and outlet to ensure the pressure is high enough to feed the gas chromatography system carrier gas. If the pressure comes low, then the LDPMS gives an alarm, and the operator must isolate/regenerate the default trap and open the valves of the backup trap to keep flowing gas through the GC system.

The LDCryo system must be installed with our LDP1000 or LDP2000 heated gas purifier series. The heated gas purifier must be installed before the LDCryo to remove most of the impurities (excluding Argon). This way, it ensures to keep the cold trap system clean from high level contaminants and then ensure its lifetime is extended as long as possible.

The complete system is mounted with the LDASS automatic switchover system to keep the Helium source permanent without interruption.



## ORDERING INFORMATION

LDCRYO	-X
	<b>S</b> : Single trap <b>D</b> : Dual trap



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