



# Model 7170

## LN<sub>2</sub> Level Gauge/Controller



Nuclear



Healthcare



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### KEY FEATURES

- Color touch display
- RJ-45 and RS-232 outputs
- Level based valve control
- Configurable alarm setpoints
- Remote operation via Ethernet

### OPTIONAL

- Solenoid valve with captive 3 m (10 ft) cord (110 V or 230 V)
- Hoses for fill and vent

### DESCRIPTION

The Model 7170 LN<sub>2</sub> Level Gauge provides a digital display of LN<sub>2</sub> level in a Dewar or container along with adjustable low and high level setpoints which initiate audible and visible alarm signals as well as a relay output for remote monitoring. The display shows liquid level from 0-100% of the active sensor length. It can be programmed to read out in inches or centimeters. Sensors are designed, sized, and configured for CANBERRA dipstick and integral cryostats. Consult the factory for applications involving non-CANBERRA branded cryostats.

In addition it has adjustable low and high level control setpoints and a relay which provides line voltage to a controlled ac output for operation of a solenoid valve. The control and alarm setpoints are readily adjustable by means of front panel controls. Setpoints are stored in non-volatile memory. This ac outlet is powered from the time the low setpoint is reached until either 1.) the high setpoint is reached or 2.) the user-programmed time-out is reached.

The models 7170-110 and 7170-230 include a cryogenic solenoid valve, for 100-120 V or 220-240 V operation respectively, as well as fill and vent hoses. LN<sub>2</sub> supply containers are available for a complete automatic LN<sub>2</sub> Fill System.

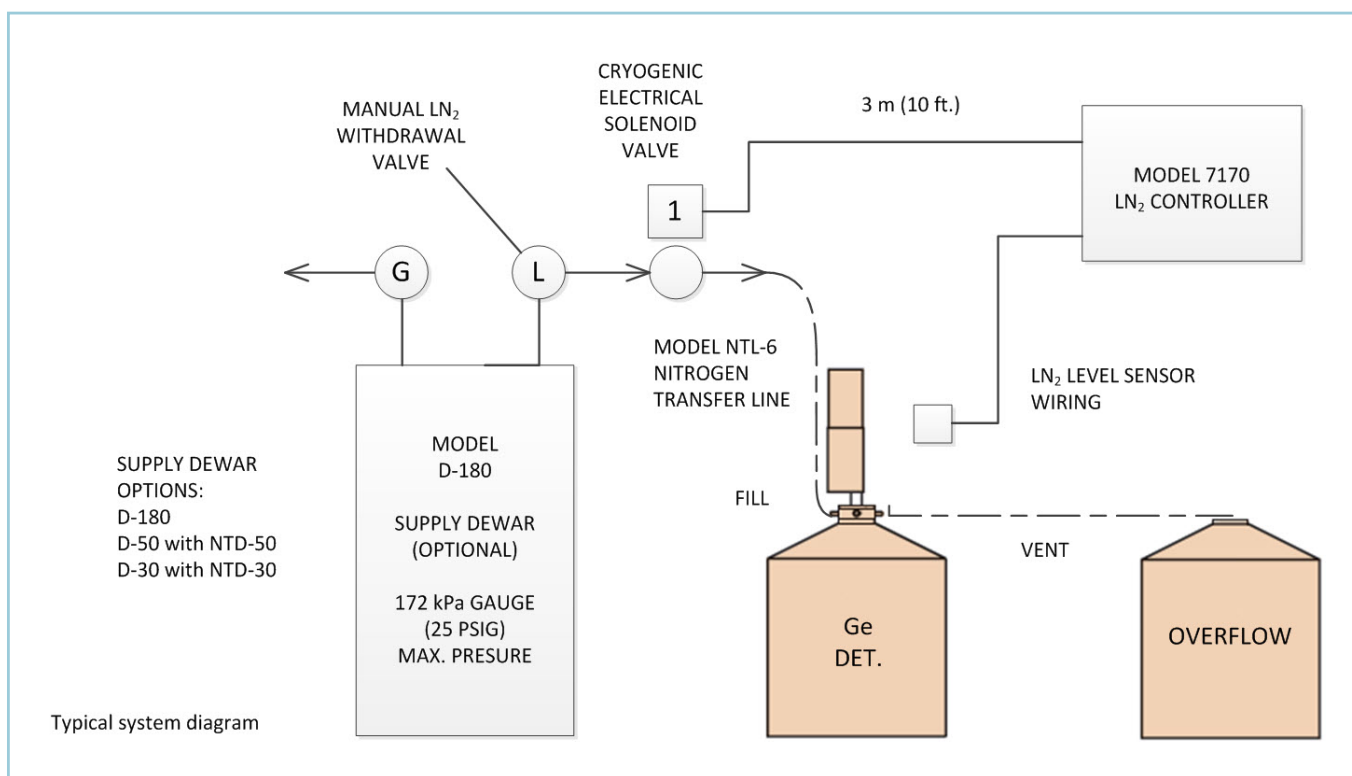
The 7170 Controller requires a source of LN<sub>2</sub> at a pressure of 34 to 172 kPa gauge (5 to 25 psig). CANBERRA D-180 LN<sub>2</sub> cylinder or their equivalents are highly recommended. A self-pressurizing withdrawal device (NTD-30/50) with a 30 or 50 liter Dewar can be used but it is not highly recommended because of marginal capacity and pressure for most applications. The liquid quality must be good at the point of consumption. This means there must be no ice in the liquid and that the supply line must not have excess heat losses.

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## ORDERING INFORMATION

- 7170A – Controller instrument only.
- 7170-110 – Includes specific solenoid valve for operation at 100-120 V + fill/vent lines.
- 7170-230 – Includes specific solenoid valve for operation at 220-240 V + fill/vent lines.
- Fill vent collar with capacitive level sensor probe to be ordered separately:
  - C-30-CP – RTV Collar with a Capacitance LN<sub>2</sub> level probe for a dipstick cryostat with a 1.25 diameter tail tube in a 30 liter Dewar.
  - C-30I-CP – Solid RTV Collar with a Capacitance LN<sub>2</sub> level probe for a 30 liter Integral Dewar.
  - C-15I-CP – Solid RTV Collar with a Capacitance LN<sub>2</sub> level probe for 15 liter Integral Dewars.
  - C-7.5I-CP – Solid RTV Collar with a Capacitance LN<sub>2</sub> level probe for 7.5 liter Integral Dewars.
- See LN<sub>2</sub> Accessories for options.



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