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## LIQUID NITROGEN LEVEL CONTROLLER QAR3030

### AUTOMATIC CONTROL OF LIQUID NITROGEN LEVELS



For reliable automatic control of levels of liquid nitrogen in

- ⇒ Cryostats
- ⇒ Cold Traps
- ⇒ Refrigerators
- ⇒ Dewars

Adjustable Low Level and High Level control points

Adjustable Low Alarm and High Alarm levels  
Manual 'fill' switch

Simple to install and use with six easy to read 'status' lights to indicate the state of the vessel

High Alarm	High Level	Normal	Low Level	Low Alarm	Filling
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Built-in audible alarm and connection for remote alarm

Models available to suit wall, desk or vessel mounting for optimal flexibility

### DESCRIPTION

The Quantum QAR3030 is an electronic automatic level control unit fitted with four level sensors on the ends of PTFE sheathed leads which are positioned at different heights within the vessel in order to control an automatic valve which allows liquid Nitrogen to enter the vessel and also to trigger alarms should liquid levels become too high or too low.

### OPERATION

When the level of liquid nitrogen in the vessel being controlled falls below the position of the 'Low Level' sensor, the QAR3030 switches ON an automatic valve(not supplied) to allow liquid nitrogen to enter the vessel. The level of liquid nitrogen will then rise until the 'High Level' sensor is reached at which point the QAR3030 switches OFF the automatic valve thus controlling the level between these two points.

If, for any reason, the level continues to fall below the 'Low Level' to the 'Low Alarm' level or continues to rise above the 'High Level' to the 'High Alarm' level, the alarm level is indicated by the corresponding red light and the audible alarm is activated together with any alarms that may be connected to the remote alarm socket.

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## TECHNICAL SPECIFICATION

Power requirements 240/220V., 50/60Hz (110 and 24 V. options available)

Power output to automatic valve 12V. d.c. (12,110,240 a.c. options)

### QAR3030 unit

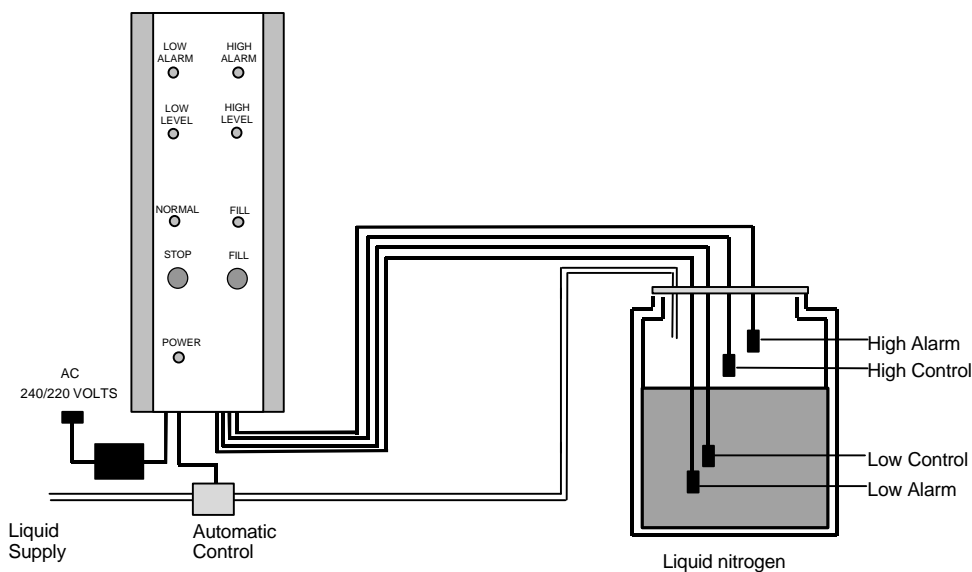
Indications and alarms 7 independent l.e.d.'s,  
 POWER ON (AMBER)  
 FILLING (GREEN)  
 HIGH ALARM (RED)  
 HIGH LEVEL (YELLOW)  
 NORMAL (GREEN)  
 LOW LEVEL (YELLOW)  
 LOW ALARM (RED)

Level sensor lead length 2 metres; diameter less than 4mm.

Level sensor length 6mm; diameter less than 4mm

Item	Part Number
Wall Mounting Controller(Single Control Box)	QAR3030W
Vessel Mounting Controller (Control Box + Remote Head) – All indications and control functions are located within remote head	QAR3030V
Bench Mounting Conversion Kit (To allow desk mounting of controller)	QAR3030DK
Sensor locating Kit for use in positioning sensors in vessel	QLA101

### SCHEMATIC DIAGRAM OF QAR3030 CONNECTED TO AUTOMATIC VALVE IN TYPICAL APPLICATION TO CONTROL LIQUID NITROGEN LEVEL IN VESSEL NOT TO SCALE



\* 110 VOLT AND 24 VOLT OPTIONS AVAILABLE

Data Sheet No. 01042001

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