

# LIQ-SWITCH

- Automatic system for LN2 supply output from T-PED cryogenic tanks with switch over function based on low line pressure detection
- Real time monitoring measures and pressures through LCD display with backlight
- Alarm signaling through blinking visual and acoustic indicators with recovery time programmable by the user
- Programming by encoder with button integrated
- Alarm acoustic signal with acknowledge pushbutton on the front panel
- Solenoid valves status indication on front panel
- Automatic switch over functions for empty tank, through integrated solenoid valves
- Set points programmable by the user for minimum tank level, low operating tank pressures
- Auxiliary output switch for external cumulative alarm indicator or hooter
- N2 supply output status available on front panel with LED indication between liquid and gas status
- Pneumatic circuit pressure control with safety valves
- Manual function for maintenance operations
- Proprietary network protocol CRIONet
- Remote programming and reception of update messages through CrioSystemSupervisor platform (MOD-COM modem required)



**LN2 supply from T-PED cryogenic tanks with automatic switch over function**

**CRYOGENICS**

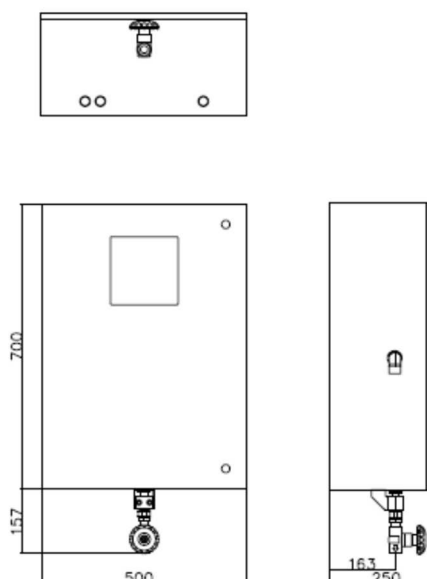
## TECHNICAL SPECIFICATIONS

Power supply	230 Vac 50/60Hz, P max 50 VA, fuse 1 A
Flow range	13 lt/min.
Operating pressure	Max. 3,5bar controlled with safety valves
Visual indication	Display 4 lines x 20 characters, backlight Operating alarm: yellow LED 20 x10 mm Emergency alarm: red LED high efficiency 20x10 mm Fail: red LED diam. 5 mm Communication: yellow LED diam. 5 mm
Alarm sound	Magnetic speaker, volume adjustable up to 95 dB @ 1 m
Inputs	Sensors present into the cabinet -1 output line temperature (PT100) -1 output line pressure (4-20mA) -2 Inputs tank pressure (4-20mA)  Available for external sensors -2 Inputs tank level (4-20mA)
Auxiliary output switch	1 relay contact, Vmax. 250 Vdc/Vac, Imax 100 mA, N.C. or N.O. operations

Pneumatic connections	-2 F ½" NPT (connection with tanks) -1 F ½" NPT (output supply)
Local network interface	Proprietary protocol CRIONet on insulated bidirectional RS485
Housing	Stainless steel for wall mounting, dim. 500 x 700 x 250 mm, internal control unit waterproof IP55
Weight	45 kg
Operating temperature	-20...60° C
Reference standards and directives	2014/30/EU EMC, 2014/35/EU LVD, EN 61000-6-1, EN 61000-6-3, RoHs 2011/65/EU



## DIMENSIONS



measures in mm

## PRODUCT CODES

CODE	DESCRIPTION
0001-09-001	<b>Liq-Switch unit:</b> Switch over system for LN2 supply from pressurized vessels
0001-08-051	<b>Transfer hose for inlet LN2:</b> Transfer hose for connection with vessels for LN2 supply, connection M1/2"G-F3/4"UNF L=100cm
0001-08-052	<b>Transfer hose for outlet supply LN2:</b> Transfer hose for connection with vacuum transfer line or freezer for LN2 supply, connection M1/2"G-F7/8"UNF L=150cm
0001-08-060	<b>Tank level indicator cable for Liq-Switch:</b> Connection male/female IP68 with resin overmoulding. Cable length 2.5mt + 0,5mt