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LIQ-SWITCH

Automatic switch over system for liquid N2 tanks

LIQ-SWITCH system is developed to ensure continuous LN2 supply from storage cryogenic tanks of TPED type.

LIQ-SWITCH allows satisfying the necessities of LN2 supply, avoiding the complex and onerous pipeline distribution installation activities of cryogenic tank PED type. TPED tanks, in fact, are easier to handle and to replace.

LIQ-SWITCH monitors the tank pressures by a last generation microprocessor and in a low operating pressure situation, caused by the exhaustion of the product, switches the supply on the backup tank.

With the complete exhaustion of the operating tank, it is possible to avoid waste of product with a consequent costs reduction in the LN2 supply. The device can work with just the backup tank; therefore the exhausted tank can be replaced until the backup tank exhausting.

LN2 supply works with a drop in output pressure of pipeline, caused by a supply request from the user. All the pressure measurements are available by 4-20mA pressure transducers, which allow avoiding the uncomfortable initial calibration activities and problems caused by the adaptation to different operating conditions. LN2 supply status is available on the display thanks to a PT100 probe, connected to the output line. During the normal function, ***LIQ-SWITCH*** shows the status page, as follow:

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<<       LIN
P LH     [bar]     P RH
   P outlet supply
      status line
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Some visual signals with LEDs are provided, to show the solenoid valves status.

In case of storage or tank low pressure, ***LIQ-SWITCH*** supplies visual and acoustic signals, to notify the alarm in progress.

The LN2 supply interruption and the consequent standby status occur after the increasing of the line pressure until reaching the operating tank pressure minus an offset value defined.

LIQ-SWITCH is employed to ensure the LN2 supply to cryopreservation dewar, but it can be used for any other use where LN2 at low pressure is required.

In ***LIQ-SWITCH*** has been provided of manual control for the maintenance; the access is protected by a password, fixed by the user.

It is possible to monitor the unit by remote, where all measurements are available to improve the tanks replacement service.

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