CryoLogger

SG·LAB
Technology & Innovation

General description:

The CRYOLOGGER's electronics are designed to handle no.5 native inputs capable of monitoring Pt1000/Pt100 temperature probes, no.2 4-20mA inputs and no.2 digital ON/OFF inputs. It is the ideal device for monitoring cryogenic containers, refrigerators and freezers under different configurations.

It is physically presented in a small and elegant cabinet that encloses the electronics inside; at the front it has a 4.3" LCD touch screen display through which the user can view data readings and current events (alarms and pre-alarms), as well as being able to consult the historicized readings of the control unit.

It also detects operating anomalies up to 4 alarm thresholds for each input (e.g. high temperature pre-alarm, high temperature alarm, low temperature pre-alarm, low temperature alarm).
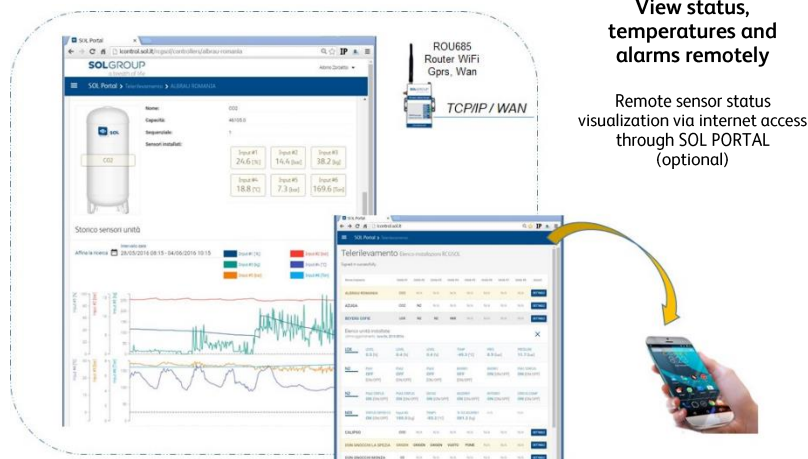
It has two digital outputs that can be configured for remote signaling to operation centers or centralized alarm systems, and an additional emergency relay contact.

Via the Wi-Fi interface and its IP address, configuration functions and SMS and e-mail notification management (available via optional router) can be accessed.

Data from connected sensors and event logs generated by the controller can be downloaded via USB device or directly remotely, by purchasing optional router, via a dedicated optional SOL Portal.

MAIN FEATURES

1. Real-time monitoring of connected sensors;
2. Internal storage of monitored data;
3. Management of trend tracking and thanks to SOL PORTAL portal graphs;
4. Real-time identification of the presence of alarms (optical-acoustic signaling);
5. Report generation by data download via USB device;
6. Pre-configurable by SG Lab technicians;
7. Web based device, access via IP address;
8. Large number of inputs.

View status, temperatures and alarms remotely

Remote sensor status visualization via internet access through SOL PORTAL (optional)

TECHNICAL FEATURES

CryoLogger	M.U.	Characteristics
Dimensions (Width x Height x Depth)	mm	120 x 200 x 35
Weight	g	350
Nominal supply voltage	VDC	9 ÷ 31 VDC
Minimum ÷ maximum ambient temperature	°C	-10 ÷ 35
Minimum ÷ maximum ambient relative humidity	%	25 ÷ 90
Maximum altitude above sea level	m	1000
Charging current	A	0.25A
Touch screen display		
Dimensione area visiva	inch	4.3 ''
Number of representable colors		262.000 colors
Display technology		TFT
Touch screen film type		resistive
Main components		
Emergency buzzer at a distance of 1 meter	dB	70
RS485 serial interface		115.2 kbps 8N1
USB interface (connection with USB flash drive)		FAT max 8 GB
Client Interface		Wi-Fi
CPU		ARM
Device I/O	N°	
Dry contact relay outputs for low voltage signals	1	230VAC (max 2A)
Static current-limited outputs for auxiliary control	2	24VDC PNP (max 2A)
Pt 1000/Pt 100 Probe Inputs	5	---
Digital Inputs (ON/OFF) / Analog Inputs	2	24VDC PNP 0-5 VDC 4-20 mA
Internal Li-ion battery	2	3.7 V
Runtime with battery (max)		2h

Optionals:

Description:	Code:
PT1000 type mfa temperature probe - 3mt - Ø2.5mm (free mounting without support channel)	EM040SO
PT1000 type inox temperature probe - 3mt - Ø2.5mm (free mounting without support channel)	EM041SO
24VDC DIN rail power supply 75W (eletrical panel mounting)	EM151AL
24VDC 1A power supply kit European plug and Cryologger side connector (indicate when ordering)	EM433KIT
Manual dewar level verification rod	EM453AS
Modem Router 4G WI-FI new version	EM522RU01
Channel kit no.1 mfa probe Plug&Play for mounting inside dewar (pluggable 4 kits for each Cryologger)	EM545KIT
Channel kit 2 mfa probe Plug&Play for mounting inside dewar (pluggable 2 kits for each Cryologger)	EM546KIT

CryoLogger for wall mounting:
up to 4 dewars per controller, No. 4 temperature/dewar probes, in INOX channel
or
up to 2 dewar per control unit, No. 2 temperature/dewar probes, in INOX channel

CryoLogger, on-board dewar*, Cod. EM427KIT:
No. 5 probes in stainless steel channel at 5 different heights corresponding to the levels 10 %, 30 %, 60 %, 90 %, 110 % and temperature monitoring of the 4th or 5th probe respectively

CryoLogger, on-board dewar with self-filling management*, cod. EM547KIT:
No. 5 probes in stainless steel channel at 5 different heights corresponding to the levels 10 %, 30 %, 60 %, 90 %, 110 % respectively, temperature monitoring of the 4th or 5th probe, and automatic filling management with cryogenic solenoid valve and stainless steel tube

* list of dewar models that can be set up is available on request