



iLOGPlus

Data logger

Freezer data logging & remote monitoring

Version: 1.0 – January 2012

Introduction

ILOGPlus is a range of data loggers with built in advanced technology features and full Internet connectivity. It is manufactured in 2 versions with built-in Ethernet interface and with a built in GSM modem, that are capable to fit a wide range of applications ranging from simple to the most complex.

Requirements

At an industrial frozen food manufacturer's site with 2 deep freezers (-25°C) and 1 conservation freezer (0°C) it is desired to:

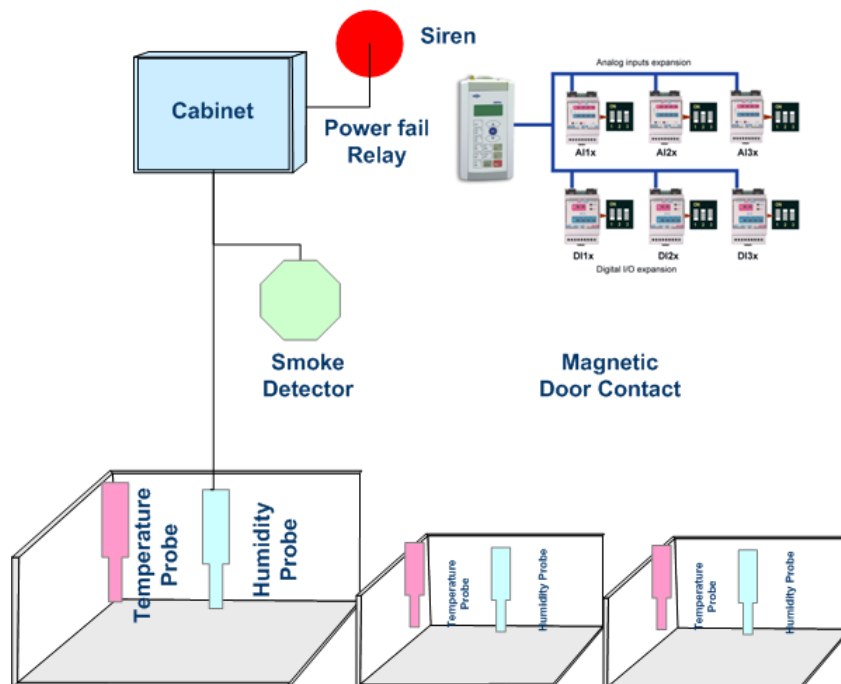
- Measure and log temperature, humidity and receive alarms when limits are exceeded.
- Receive alarms whenever there is a power failure.
- Receive alarms whenever the freezer doors are left open for a long term.

Proposal

An iLOGPlus-LAN data logger with

- An optional GSM modem to send alarms via SMS,
- 3 temperature probes (typically AD592, which are current sensors and can be extended up to 100+ meters),
- 3 humidity probes (typically a 5-95% to 4-20mA),
- A power loss detection relay to monitor power failures

is all that is needed to setup a complete monitoring and alarming system



The iLOGPlus data logger can log all channels and send data automatically to a preconfigured email or local ftp account every x hours. Online monitoring is offered through the internal web server, using any Internet browser.

iLOG RTU/Data logger


Station name: iLog01 Description: iLog telemetry unit

Device parameters			
Logging rate	900 sec	Sending rate	43200 min
Email recipients	-	Sync time	00:00
SMS recipients	-		
FTP	OFF	Email Data	OFF
FIFO records	016011	Email Alarm	OFF
		Free space (records)	015803

Digital I/O			
Outputs	System	Digital OUT 1.2	(Alarm) (PreAlarm)
		Digital IN 1.4	OFF-OFF-OFF-OFF

Channel data						
Last update: 06/06/06 14:40:10						
Channel	Value	Unit	Scale	High limit	Low limit	
Channel 1		1962.0	-	0..4095	4095.0	0.0
Channel 2		1963.0	-	0..4095	4095.0	0.0
Channel 3		1963.0	-	0..4095	4095.0	0.0
Channel 4		1962.0	-	0..4095	4095.0	0.0
Not in use		-	-	-	-	-
Not in use		-	-	-	-	-

[Change Settings](#)

The screenshot displays the iBase software interface. On the left is a splash screen for 'infinite iBASE' featuring a globe and a handheld device. On the right, a graph window shows a data trace for 'Channel 1' over a period from 15/5/2004 to 17/5/2004. The graph shows a baseline with a significant spike. Below the graph is a data table window showing a 'Default view' of measurements for 'Channel 2'.

Channel	Date	Time	Value	Unit	Alarm	DI1	DI2	DI3	
iLogPan2	Channel 2	10/06/2004	10:39:14	-6.8	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	10:24:14	-1.3	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	10:09:14	16.2	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	09:54:14	19.8	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	09:39:14	19.2	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	09:24:14	18.9	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	09:09:14	18.6	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	08:54:14	18.5	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	08:39:14	18.3	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	08:24:14	18.2	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	08:09:14	18.0	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	07:54:14	18.0	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	07:39:14	17.9	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	07:24:14	17.7	oC	H	0	0	0
iLogPan2	Channel 2	10/06/2004	07:09:14	17.6	oC	H	0	0	0

Whenever there is an alarm, e.g. a temperature limit overstepping, for more than 30 minutes, an SMS alarm to a list of recipients is issued. If the temperature rises above

2°C an SMS alarm will be issued to a list of recipients, which can decide and decide on, visiting the installation or issuing remote commands.

Note: A single iLOGPlus data logger, which has by default 4 analogue inputs, 4 digital inputs, and 2 relay digital outputs can manage all the above. Extend the iLOGPlus unit with GE-AI-4 analog input expansion units to add more freezers (up to 16 channels per iLOGPlus device).