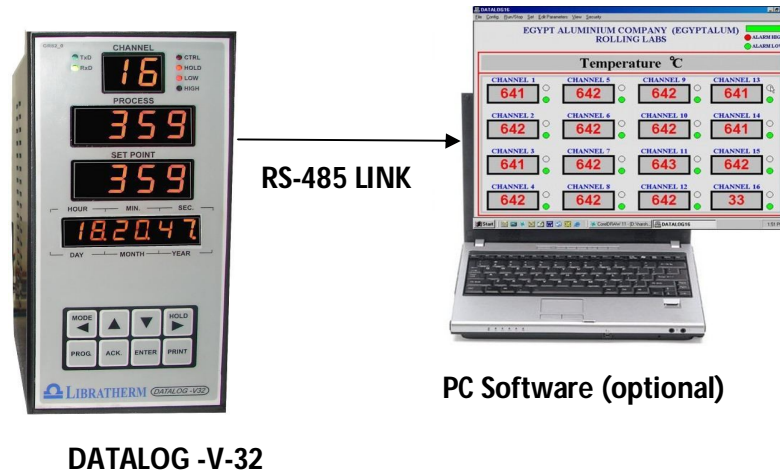


Microprocessor Based 32 channel Temperature Scanner and Data logger



Description:

Libratherm offers Microprocessor based 32 Channel Temperature / Process Scanner model DATALOG-32V, which is most suitable for continuous monitoring of temperature or process parameters at maximum 32 different locations. Each input has independent amplifier and hence each can be selected for different type of input. All the channels are displayed with the respective channel numbers. The front panel LED shows the Alarm status.

Datalog-32V offers common or individual high or low alarm set point with relay outputs, parallel Centronics interface and / or serial PC interface. The built in Real Time Clock allows display of real time and RS232/RS485 serial port allows data transfer on to the PC. Required data acquisition software (DAS) operating on Windows (98, 2000, XP or Vista) is also offered for on line and off line viewing of all the channels on the computer screen in both graphical and tabular representation. Libratherm offers, standard and customized PC based software to meet user's requirement.

Features:

- ❖ Available in standard ½ DIN sizes.
- ❖ Highly accurate and sturdy in operation.
- ❖ Accuracy better than $\pm 0.1\%$ of the full scale.
- ❖ Elegant looks, Very easy to operate.
- ❖ Accepts standard inputs like thermocouple, RTD - Pt-100 2 or 3-wire input, etc.
- ❖ Models with 4 to 32 inputs are available.
- ❖ High quality membrane keypad
- ❖ Power supply 230 VAC $\pm 10\%$, 60 / 50 Hz
- ❖ PC compatible

Technical Specifications:

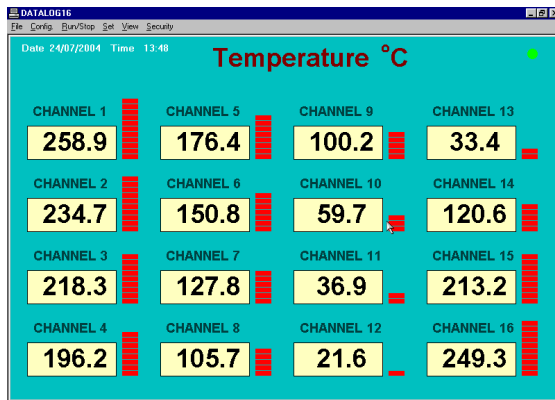
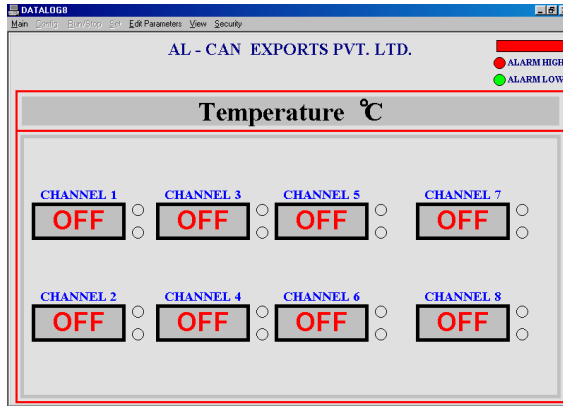
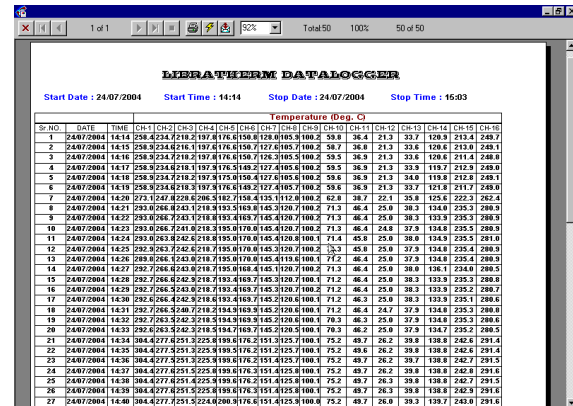
Design	Microprocessor based(8 bit) with 12 bit ADC
No. Of channels	20,24,28 and 32 (as per user's requirement)
Input	RTD(Pt-100) / 3 wire or desired type of Thermocouple (to be specified by user)
Accuracy	Better than $\pm 1^{\circ}\text{C}$ - Software Linearized.
Resolution	$1^{\circ}\text{C} / 0.1^{\circ}\text{C}$ (depends on specified calibration range)
Display	4 digits each 0.5" 7-segment red LED to display process and Alarm Set values. 2 digit 0.5" 7 segment red LED for channel number
Open Sensor/Input Indication	Display shows Flt-1 or Flt-2 and all outputs will be turned low.
Display Scan Rate	1 to 99 sec (programmable through front panel keyboard)
Sampling Rate	125mS (All 32 channels will be scanned in 4 seconds).
Skip/Hold Facility	Available through key board in configuration mode
Key board	8 x 1 membrane keypad for data entry
Common Relay Outputs	2 nos. potential free change over contact (1 each for high and low output but common for all the channels)
Individual Alarm Outputs	2 per channel i.e. 32 open collector outputs to drive external relay cards. Alarms Can be configured for LL, HH, LH, HL) or can be grouped as per the specified requirement. L – Low and H – High.
LED Indication	32 dual color LED's in the front indicating status of each alarm output
Serial Interface	Serial (RS485 2 wire isolated) on mod bus ASCII protocol.
Size (WxHxD)	96 x 192 x 200 mm. (DATALOG-32-V)
Panel Cutout	92 x 186 mm + 0.5 mm
Supply	230VAC $\pm 15\%$ (10VA), 50 Hz
Enclosure	Metallic with ABS bezel and polycarbonate front fascia

PC BASED INTERFACING SOFTWARE (DAS): (Optional – can be supplied at additional cost)

Libratherm offers customized data logging software to meet various applications. The communication between the data logger and the PC is established using RS 485 interfacing bus and the data transfer are based on the MODBUS ASCII protocol. The supporting window based software available on the CD is required to be pre loaded onto the computer.

When the PC is connected to the data logger, the data can be on line transferred to the PC where the PC acts as a master and sends queries to the data logger to send the real time data channel number and process values. The pc will process these data to store in the tabular as well as the graphical format, which can be viewed on demand as on line or offline data. The software allows user to store other information, such as, Company name, Batch number, process name, as well as certain customized fields. This makes the software user friendly and dedicated to the requirement.

The following screens shows such software features.

S. NO	DATE	TIME	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16
1	24/07/2004	14:14	258.4	234.4	218.2	197.4	176.4	150.8	127.8	105.7	100.2	59.7	36.9	33.4	120.6	213.2	249.3	258.9
2	24/07/2004	14:15	258.3	234.3	218.1	197.3	176.3	150.7	127.7	105.6	100.1	59.6	36.8	33.3	120.5	213.1	249.2	258.8
3	24/07/2004	14:16	258.2	234.2	218.0	197.2	176.2	150.6	127.6	105.5	100.0	59.5	36.7	33.2	120.4	213.0	249.1	258.7
4	24/07/2004	14:17	258.1	234.1	217.9	197.1	176.1	150.5	127.5	105.4	99.9	59.4	36.6	33.1	120.3	212.9	249.0	258.6
5	24/07/2004	14:18	258.0	234.0	217.8	197.0	176.0	150.4	127.4	105.3	99.8	59.3	36.5	33.0	120.2	212.8	248.9	258.5
6	24/07/2004	14:19	257.9	233.9	217.7	196.9	175.9	150.3	127.3	105.2	99.7	59.2	36.4	32.9	120.1	212.7	248.8	258.4
7	24/07/2004	14:20	257.8	233.8	217.6	196.8	175.8	150.2	127.2	105.1	99.6	59.1	36.3	32.8	120.0	212.6	248.7	258.3
8	24/07/2004	14:21	257.7	233.7	217.5	196.7	175.7	150.1	127.1	105.0	99.5	59.0	36.2	32.7	119.9	212.5	248.6	258.2
9	24/07/2004	14:22	257.6	233.6	217.4	196.6	175.6	150.0	127.0	104.9	99.4	58.9	36.1	32.6	119.8	212.4	248.5	258.1
10	24/07/2004	14:23	257.5	233.5	217.3	196.5	175.5	149.9	126.9	104.8	99.3	58.8	36.0	32.5	119.7	212.3	248.4	258.0
11	24/07/2004	14:24	257.4	233.4	217.2	196.4	175.4	149.8	126.8	104.7	99.2	58.7	35.9	32.4	119.6	212.2	248.3	257.9
12	24/07/2004	14:25	257.3	233.3	217.1	196.3	175.3	149.7	126.7	104.6	99.1	58.6	35.8	32.3	119.5	212.1	248.2	257.8
13	24/07/2004	14:26	257.2	233.2	217.0	196.2	175.2	149.6	126.6	104.5	99.0	58.5	35.7	32.2	119.4	212.0	248.1	257.7
14	24/07/2004	14:27	257.1	233.1	216.9	196.1	175.1	149.5	126.5	104.4	98.9	58.4	35.6	32.1	119.3	211.9	248.0	257.6
15	24/07/2004	14:28	257.0	233.0	216.8	196.0	175.0	149.4	126.4	104.3	98.8	58.3	35.5	32.0	119.2	211.8	247.9	257.5
16	24/07/2004	14:29	256.9	232.9	216.7	195.9	174.9	149.3	126.3	104.2	98.7	58.2	35.4	31.9	119.1	211.7	247.8	257.4
17	24/07/2004	14:30	256.8	232.8	216.6	195.8	174.8	149.2	126.2	104.1	98.6	58.1	35.3	31.8	119.0	211.6	247.7	257.3
18	24/07/2004	14:31	256.7	232.7	216.5	195.7	174.7	149.1	126.1	104.0	98.5	58.0	35.2	31.7	118.9	211.5	247.6	257.2
19	24/07/2004	14:32	256.6	232.6	216.4	195.6	174.6	149.0	126.0	103.9	98.4	57.9	35.1	31.6	118.8	211.4	247.5	257.1
20	24/07/2004	14:33	256.5	232.5	216.3	195.5	174.5	148.9	125.9	103.8	98.3	57.8	35.0	31.5	118.7	211.3	247.4	257.0
21	24/07/2004	14:34	256.4	232.4	216.2	195.4	174.4	148.8	125.8	103.7	98.2	57.7	34.9	31.4	118.6	211.2	247.3	256.9
22	24/07/2004	14:35	256.3	232.3	216.1	195.3	174.3	148.7	125.7	103.6	98.1	57.6	34.8	31.3	118.5	211.1	247.2	256.8
23	24/07/2004	14:36	256.2	232.2	216.0	195.2	174.2	148.6	125.6	103.5	98.0	57.5	34.7	31.2	118.4	211.0	247.1	256.7
24	24/07/2004	14:37	256.1	232.1	215.9	195.1	174.1	148.5	125.5	103.4	97.9	57.4	34.6	31.1	118.3	210.9	247.0	256.6
25	24/07/2004	14:38	256.0	232.0	215.8	195.0	174.0	148.4	125.4	103.3	97.8	57.3	34.5	31.0	118.2	210.8	246.9	256.5
26	24/07/2004	14:39	255.9	231.9	215.7	194.9	173.9	148.3	125.3	103.2	97.7	57.2	34.4	30.9	118.1	210.7	246.8	256.4
27	24/07/2004	14:40	255.8	231.8	215.6	194.8	173.8	148.2	125.2	103.1	97.6	57.1	34.3	30.8	118.0	210.6	246.7	256.3

VARIOUS CONTROL PANEL USING DATALOG-16



32 channel panel



64 channel panel

VARIOUS PHOTOS SHOWING PC INTERFACE AND PANEL MOUNTING ARRANGEMENTS