NE&T ELECTRONICS

NE&T

Revolution In Recording

NKBDL-1050

Paperless Recorder

Datasheet

NKBDL-1050

Overview

This recorder is launched in full product range with outstanding specifications features high performance and high operating function along with high visibility Color Touch Screen LCD display. Universal input with high speed of sampling rate and high accuracy rating.Measured data is stored into USB and support USB 2.0 Only. The instrument automatically Create

File name of M1050.TXT .

Features

Basic Functions

- Up to 8 channels of universal input
- UP to 2Alarm Output Relays
- With 150mA Power distribution Output
- Communication type: RS485, Modbus RTU
- With a USB data transfer interface

Display & Operation

- Multiple display Function ： choose the display your way
- Use date and time calendar search functions to Review & historical data not available in this model.
- 3.5-inch TFT color LCD (320 x 240pixels)

Reliability and Security

- Dust- and splash-proof front panel
- Power Fail Safeguard: All the data stored in Flash memory, make sure that all the historical data and configuration para-meters will not lost when power fail. Real time clock power supply by lithium batteries.

Data Acquisition Software

- Software for varieties of tasks: analysis, settings, and acquisition

Point Specifications

• Input specifications

Number of Inputs: 1~8channels

Measurement Interval: 1s,2s,3s. or

max 100 seconds Sampling rate.

Inputs: : 0-20mA,4-20mA,mV, 0-100mV, 0-5V,1-5V,0-10V,

RTD(pt-100),J type, K type .

Input(Thermocouple type)	Range （℃）	Measurement accuracy*（℃）	Display resolution
J	0-600	±2.4	0.1°C
K	0-1100	±2.4	0.1°C

* Does not include the accuracy of reference junction compensation. RJC Error ± 1°C

Input	Range（℃）	Measurement accuracy （℃）	Display resolution
Pt100	-10 - 200	±1.5	0.1°C

• Power supply

voltage range:150 to 250 VAC

Rated power supply frequency:

47-63 Hz (automatic switching)

Power consumption: 45 VA (max., for 2545VAC power supply)

• Normal Operating Conditions

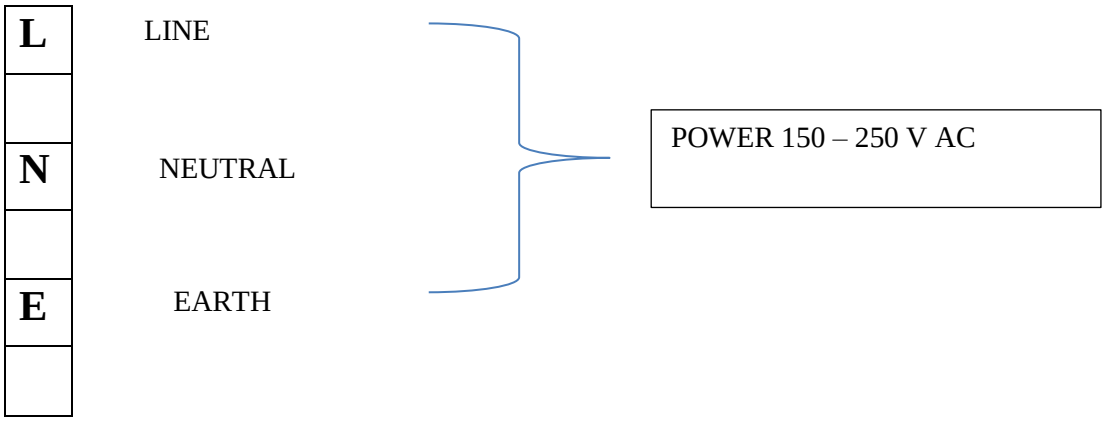
Ambient temperature: 0 to 50 °C

Ambient humidity: 10% to 85% (non condensing)

SPESCIFICATION

- Main (auxiliary supply) : 150-250VAC ,45VA
- Inputs Universal (1-8 Channel) : 0-20mA,4-20mA,0-5vDC,1-5VDC,0-10vDC,RTD,Jtype,Ktype
- Data Storage : USB 2.0
- Alarms Relay (Two) : Alram H, Alram L
- Alram Hysteresis (1-8 channel) : 0- 100 % in parameter setting adjustable by touch
- Alram E/D, 1-8 channel : Disable =0, Enable = 1
- Calibration, 1-8 channel : Field adjustable by touch (in Calibration page)
- All Parameters Field adjustable : In parameter setting page
- Operating temp. : 0 dec. – 50 dec
- Overall size : 120x120x175 mm (HxWxD)
- Panel Cutout :110.5x110.5 mm(WxH)

Terminal details:



270E 1% external resistance must be connected use for Current Inputs.
Note At the time of current measurement The Resistance of 270E must be connected across the terminals between com & +mA

CH1	**1**	+	mA/v /mV
	2	-	com
	3	+	RTD
CH2	**4**	+	mA/v/mV
	5	-	com
	6	+	RTD
CH3	**7**	+	mA/v/mv
	8	-	com
	9	+	RTD
CH4	**10**	+	mA/v/mv
	11	-	com
	12	+	RTD
CH5	**13**	+	mA/v/mv
	14	-	com
	15	+	RTD
CH6	**16**	+	mA/v/mv
	17	-	com
	18	+	RTD
CH7	**19**	+	mA/v/mv
	20	-	com
	21	+	RTD
CH8	**22**	+	mA/v/mv
	23	-	com
	24	+	RTD
SW	**25**	-	ALRM ACK
	26	+	ALRM ACK
RS485	**27**	+	D+
	28	-	D-

Parameter setting/ configuration

In this parameter setting user can set all Low Span/ High Span, Decimal points, display action(forward/Revers) Alram value, clock Etc. 1st select channel Then Press Read file switch now stored value will display.

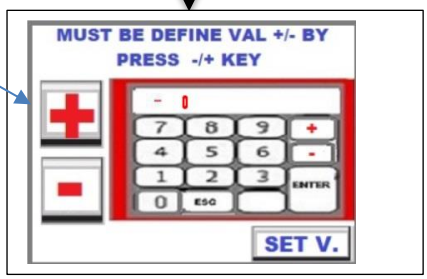
Input channel selection

Input type select

Alaram Hysteresis

Alaram Enable/Disable

USB DATA STORAGE
SAMPLE TIME
(0-100 Seconds)



New value must be defined +/- by use key and press E key

INSTRUMENT CALIBRATION

In this parameter user can calibrate all input channels like 0-20mA/V/Mv/RTD/Thermocouple and change/ set new calibration password etc. 1st press calibration key by touch pen then Instrument will display Password window now enter correct password if password is correct then will display 1st page of calibration widow, in this page user 1st of all select the channel number after that apply 0mA at selected channel input terminals and now shall be press save key after that apply 4mA at input terminals now press save key after that apply 20mA at input terminals and press save key .

RTD CALIBRATION

1st select channel and after that connect resistance at input terminal now press keypad key and correct resistance value now Press save key after that check the value display on resistance display is it correct or not if not correct then press edit key and Again feed correct resistance value and press save key and again check resistance value on resistance display
The same process will have to be applied until the correct value is obtained. Same procedure apply for J type thermocouple calibration or K type Thermocouple.

Press keypad and feed correct password (4digit)

User can set new password (4digit) and press save key.
*Factory Set Pass.:1975
Next key 2nd calibration window and return key back to main page and Edit Key for recalibration.

• Display

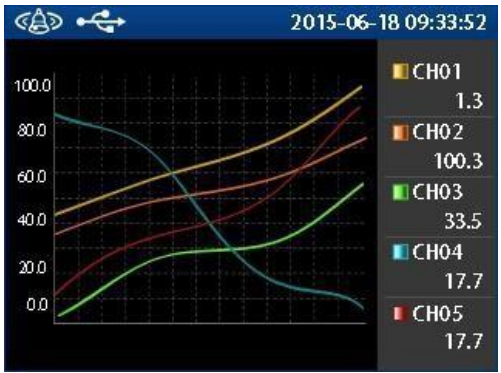
Display unit: 3.5 inch TFT color LCD (320 x 240pixels)
Background: black
Back light： LED
Trend display type: Vertical, horizontal, digital graph selectable
Display renewal rate: 1 s

• Display function

User can change display object (trend, numeric, and bar graphs, etc.)

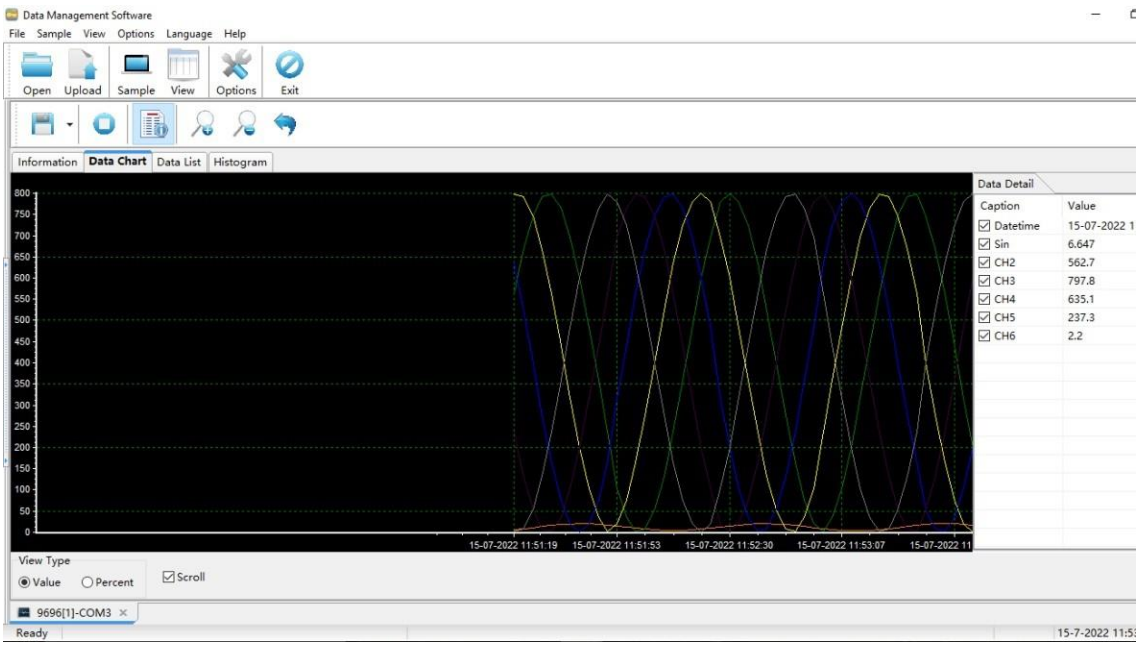
Data screen

Real-time trend screen

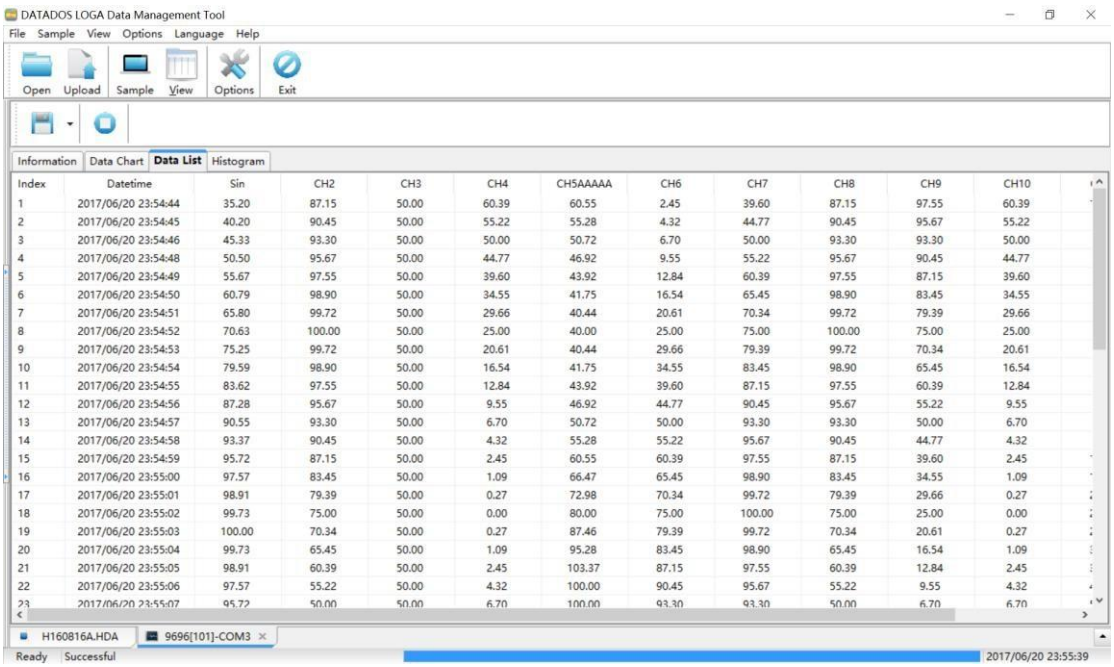


Application Software optional

DATA CHART-REAL TREND



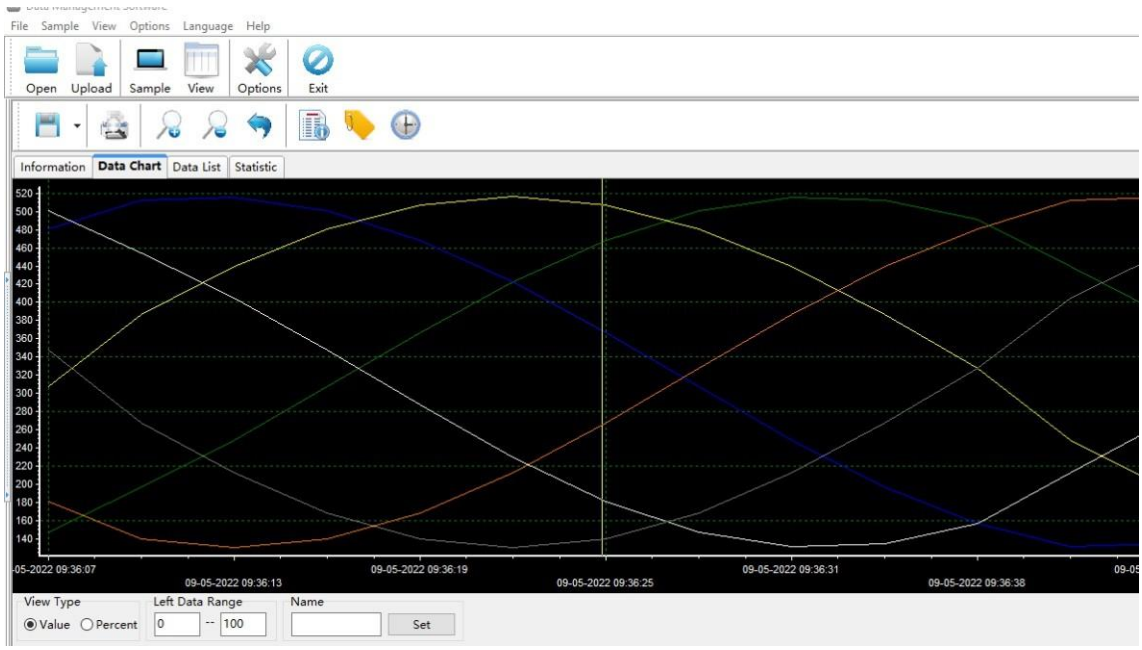
DATA LIST



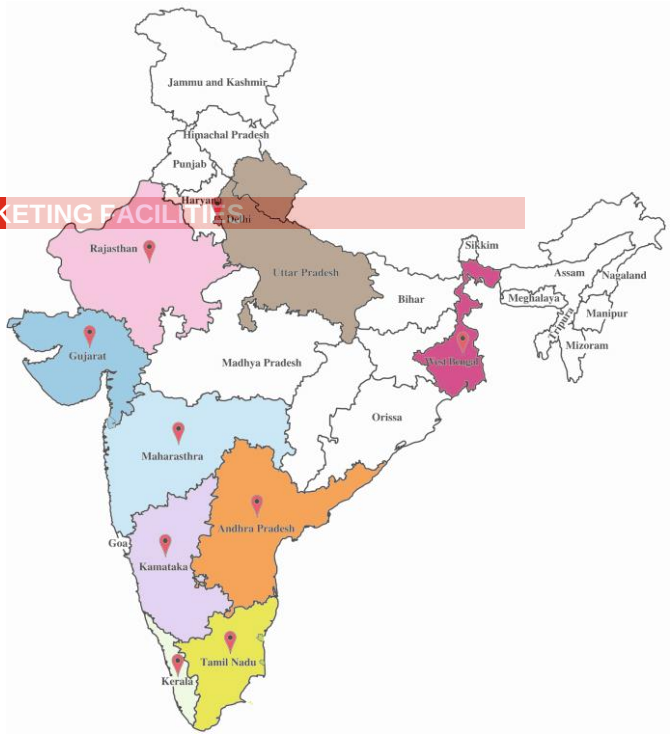
Index	Datetime	Sin	CH2	CH3	CH4	CH5AAAAA	CH6	CH7	CH8	CH9	CH10
1	2017/06/20 23:54:44	35.20	87.15	50.00	60.39	60.55	2.45	39.60	87.15	97.55	60.39
2	2017/06/20 23:54:45	40.20	90.45	50.00	55.22	55.28	4.32	44.77	90.45	95.67	55.22
3	2017/06/20 23:54:46	45.33	93.30	50.00	50.00	50.72	6.70	50.00	93.30	93.30	50.00
4	2017/06/20 23:54:48	50.50	95.67	50.00	44.77	46.92	9.55	55.22	95.67	90.45	44.77
5	2017/06/20 23:54:49	55.67	97.55	50.00	39.60	43.92	12.84	60.39	97.55	87.15	39.60
6	2017/06/20 23:54:50	60.79	98.90	50.00	34.55	41.75	16.54	65.45	98.90	83.45	34.55
7	2017/06/20 23:54:51	65.80	99.72	50.00	29.66	40.44	20.61	70.34	99.72	79.39	29.66
8	2017/06/20 23:54:52	70.63	100.00	50.00	25.00	40.00	25.00	75.00	100.00	75.00	25.00
9	2017/06/20 23:54:53	75.25	99.72	50.00	20.61	40.44	29.66	79.39	99.72	70.34	20.61
10	2017/06/20 23:54:54	79.59	98.90	50.00	16.54	41.75	34.55	83.45	98.90	65.45	16.54
11	2017/06/20 23:54:55	83.62	97.55	50.00	12.84	43.92	39.60	87.15	97.55	60.39	12.84
12	2017/06/20 23:54:56	87.28	95.67	50.00	9.55	46.92	44.77	90.45	95.67	55.22	9.55
13	2017/06/20 23:54:57	90.55	93.30	50.00	6.70	50.72	50.00	93.30	93.30	50.00	6.70
14	2017/06/20 23:54:58	93.37	90.45	50.00	4.32	55.28	55.22	95.67	90.45	44.77	4.32
15	2017/06/20 23:54:59	95.72	87.15	50.00	2.45	60.55	60.39	97.55	87.15	39.60	2.45
16	2017/06/20 23:55:00	97.57	83.45	50.00	1.09	66.47	65.45	98.90	83.45	34.55	1.09
17	2017/06/20 23:55:01	98.91	79.39	50.00	0.27	72.98	70.34	99.72	79.39	29.66	0.27
18	2017/06/20 23:55:02	99.73	75.00	50.00	0.00	80.00	75.00	100.00	75.00	25.00	0.00
19	2017/06/20 23:55:03	100.00	70.34	50.00	0.27	87.46	79.39	99.72	70.34	20.61	0.27
20	2017/06/20 23:55:04	99.73	65.45	50.00	1.09	95.28	83.45	98.90	65.45	16.54	1.09
21	2017/06/20 23:55:05	98.91	60.39	50.00	2.45	103.37	87.15	97.55	60.39	12.84	2.45
22	2017/06/20 23:55:06	97.57	55.22	50.00	4.32	100.00	90.45	95.67	55.22	9.55	4.32
23	2017/06/20 23:55:07	95.72	50.00	50.00	6.70	100.00	93.30	93.30	50.00	6.70	6.70

BAR GRAPH

Historical Trend



MARKETING FACILITIES



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