

Thermal recorder KRN50 measures a various industrial input and prints records clearly to indicate. It is easier to operate character than existing products and it is small, light-weighted.

Features

- Compact and light -weighted
- Easy operation – LCD dot matrix display
- Channel multi input(TC/RTD/mV/V/mA) – individual select
- External digital input 2EA
- Alarm output(2EA/Channel)
- RS485 communication output(Modbus RTU)
- 2EA record mode - graphic mode or digital numeric mode
- Optional function – reservation record, detect a paper-end, record backup data, etc.

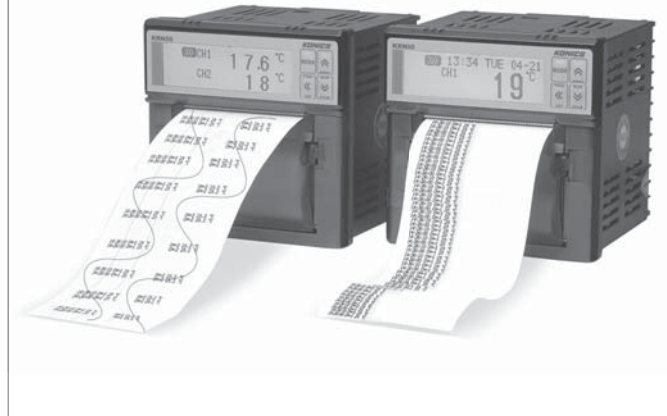
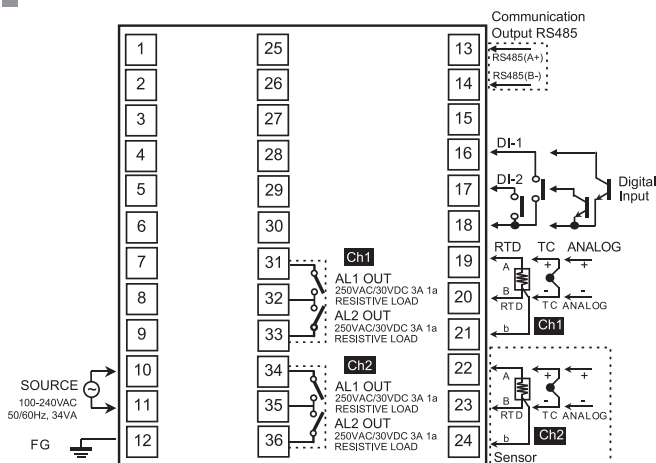
Ordering Codes

KRN50	-	2	0	0	4	-	4	0	
									Power supply
								0	100-240VAC, 50/60Hz
								1	12-24VDC(option)
								0	Option output
								4	RS485
								0	Alarm output
								2	None
								4	Alarm 2 EA ※1
								2	Alarm 4 EA ※2
								0	Ch2 control output
								0	None
								0	Ch1 control output
								0	None
								1	The number of channel
								2	1 Channel
								2	2 Channel
									Item/Series
									KRN50
									KONICS
									Thermal Line Recorder(50mm)

※1. In case of selection of 2 channel model, it is able to use 2 alarm outputs by means of alarm output of ch1. Therefore it is not possible that Ch1 has 1 alarm and Ch2 has 1 alarm separately.

※2. It is able to be selected in case of only 2 channel model.

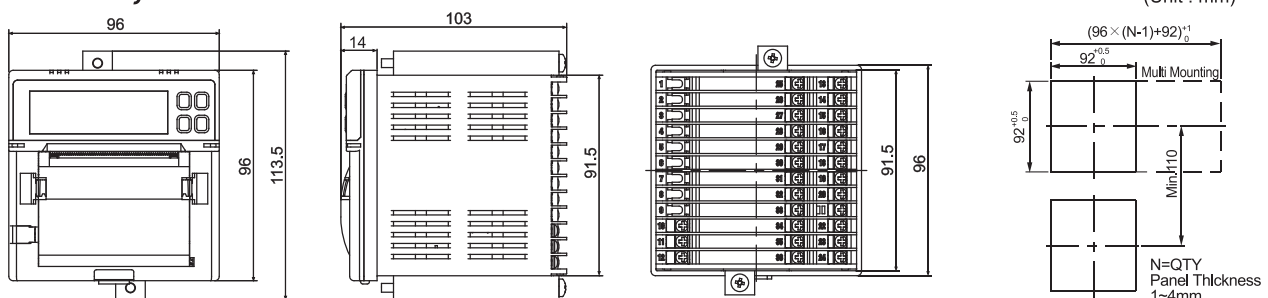
Connections



Specifications

Model	KRN50	
Power supply	100-240VAC, 50/60Hz	
Allowable voltage range	85-264VAC	
Power consumption	Max. 34VA(264VAC 60Hz)	
Display	LCD Dot matrix Display (Resolution 128 X 32 Dot)	
Input	RTD	JP100Ω, DP100Ω, DP150Ω, CU100Ω, CU50Ω, Supplying current 420mA
	T/C	K, J, E, T, B, R, S, N, C, G, L, U, PLII
	Analog	Voltage : -50.0~50.0mV, -199.0~200.0mV, -1.000~1.000V, -1.00~10.00V Current : 0.00~20.00mA, 4.00~20.00mA F class (0.1%) 50Ω high-accuracy resistor outside must be connected in case of current input
Event input	contact input	ON : Max. 1kΩ OFF : Min. 100kΩ
	Non-contact input	Input ON : Remaining 1 voltage Max. 1V OFF : Leakage current Max. 0.05mA Short circuit : Approx. 0.3mA
Indicating accuracy	RTD	±0.2% F.S ±1 Digit(25±5℃), ±0.3% F.S ±1 Digit(0~20℃, 30~50℃)
	T/C	※ But, under -100℃ in T/C, ±0.4% F.S ±1 Digit
	Analog	
Recording accuracy	±0.5% F.S	
Recording	Speed	10, 30, 60, 120, 240, 480, 960(mm/hour)
	Memo	Graphic mode : 30sec., 1min., 5min., 10min., 15min., 30min., 1hour, 2hour, 3hour, 4hour, 8hour, 16hour, 24hour / Digital mode : 5sec. ~ 99min, 59sec.
Recording paper	KONICS KRN50 exclusive recording paper (16M/volume)	
Alarm output	Relay contacting point capacity 250VAC/30VDC 3A 1a(Resistive load)	
Alarm hysteresis	Set ON/OFF interval : within 1~999 Digit	
Communication output	RS485 (Protocol : Modbus RTU)	
Setting method	Set by key	
Sampling cycle	500ms/channel X 2 channels = 1000ms	
Dielectric strength	2200VAC 50/60Hz for a 1 minute (Rechargeable terminal of another polarity)	
Vibration	0.75mm amplitude at frequency of 10~55Hz in each of X, Y, Z directions for 2 hours	
Life of relay	Electrical Contact Rating 10 x 10 ⁴ operations minimum	
Insulation resistance	Min. 100MΩ (500VDC Mega STD.)	
Noise resistance	±2kV the square wave noise(Pulse width : 1μs) by the noise simulator	
Ambient temperature	0~50℃	
Storage temperature	-20~60℃	
Ambient humidity	35~85%RH(at non-freezing status)	
Terminal bolt	M3 screw Type Terminal	
Weight	Approx. 700g(except for packing box)	

Dimension, Panel Cutout



A	Recorders
B	Indicators
C	Converters
D	Controllers
E	Thyristor Units
F	Pressure Transmitters
G	Temperature Transmitters
H	Temp. Sensors
I	Thermo Meters
J	Pressure Gauges
K	Accessories

KRN100
KRN50
KR-100N
KA-100
VR-18

Multi Range Input

	Type	Message	Selectable temp. range °C	Selectable temp. range °F
TC	K(CA)	1 TC-K1	-200 ~ 1350	-328 ~ 2462
		0.1 TC-K2	-199.9 ~ 999.9	-199.9 ~ 999.9
	J(IC)	1 TC-J1	-200 ~ 800	-328 ~ 1472
		0.1 TC-J2	-199.9 ~ 800.0	-199.9 ~ 999.9
	E(CR)	1 TC-E1	-200 ~ 800	-328 ~ 1472
		0.1 TC-E2	-199.9 ~ 800.0	-199.9 ~ 999.9
	T(CC)	1 TC-T1	-200 ~ 400	-328 ~ 752
		0.1 TC-T2	-199.9 ~ 400.0	-199.9 ~ 999.9
	B(PR)	1 TC-B	100 ~ 1800	32 ~ 3272
	R(PR)	1 TC-R	0 ~ 1750	32 ~ 3182
	S(PR)	1 TC-S	0 ~ 1750	32 ~ 3182
	N(NN)	1 TC-N	-200 ~ 1300	-328 ~ 2372
	C(TT) *1	1 TC-C	0 ~ 2300	32 ~ 4172
	G(TT) *2	1 TC-G	0 ~ 2300	32 ~ 4172
	L(IC)	1 TC-L1	-200 ~ 900	-328 ~ 1652
		0.1 TC-L2	-199.9 ~ 900.0	-199.9 ~ 999.9
	U(CC)	1 TC-U1	-200 ~ 400	-328 ~ 752
		0.1 TC-U2	-199.9 ~ 400.0	-199.9 ~ 752.0
	Platinel II	1 TC-P	0 ~ 1390	32 ~ 2534

	Type	Message	Selectable temp. range °C	Selectable temp. range °F
RTD	CU 50Ω	0.1 CU50	-199.9 ~ 200.0	-199.9 ~ 392.0
		CU 100Ω	-199.9 ~ 200.0	-199.9 ~ 392.0
	JIS standard	JPt 100	-200 ~ 600	-328 ~ 1112
		JPt 100Ω	-199.9 ~ 600.0	-199.9 ~ 999.9
	DIN standard	DPT 50Ω	-199.9 ~ 600.0	-199.9 ~ 999.9
		DPT 100Ω	-200 ~ 600	-328 ~ 1112
Analog	Voltage	-50.0 ~ 50.0mV	50mV	-1999 ~ 9999 (Display range is different according to the decimal point)
		199.9 ~ 200.0mV	200mV	
		-1.000 ~ 1.000V	1V	
	Current	-1.00 ~ 10.00V	10V	-1999 ~ 9999 (Display range is different according to the decimal point)
		0.00 ~ 20.00mA	0-20	
		4.00 ~ 20.00mA	4-20	

*1 C(TT) : Same temp. sensor as previous W5(TT)

*2 G(TT) : Same temp. sensor as previous W(TT)

* Exceptional section of measuring accuracy for each sensor

- J : -200≤T≤100 : ±2.7°C
- R, S, C, G : 0≤T≤100 : ±5.2°C
- B : No accuracy regulation under 400°C
- U, T : -200≤T≤100 : ±3.5°C
- 100≤T≤400 : ±2.5°C

Functions

► LCD dot matrix display

Input Type Setup
Alarm Setup
Reservation Setup

Easy measuring data check and parameter setting

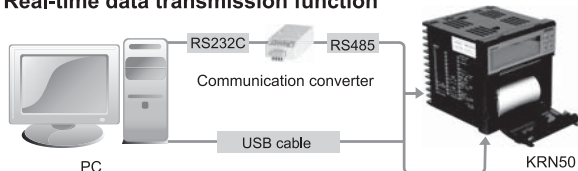
► Data logger function

Start: 02/24 14:04
Stop: 02/24 14:03
Graph Digital Cancel

It makes possible collective and repetitive print regardless of recording paper shortage due to real-time measuring data saving in internal memory (EEPROM)

※ In case of recording speed 10mm/h (Graphic mode) STD, saving the data for 6 days(2CH), 10days(1CH)

► Real-time data transmission function



Parameter setting and data monitoring in real-time by PC

► 2 channel synchronous display

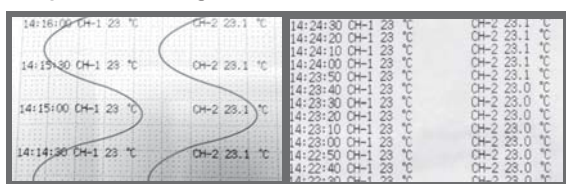
2 channel display type

1 channel display type



Easy to select display type using front key

► Graphic mode / Digital mode

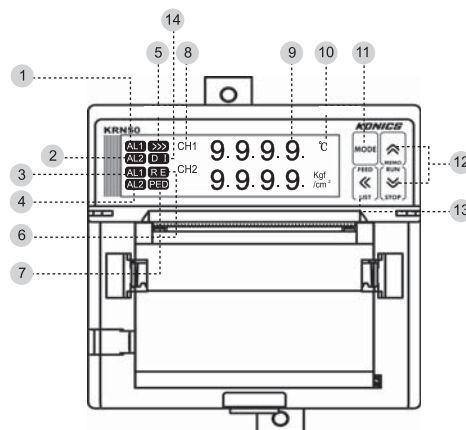


Graphic mode

Digital mode

- Recording speed : 10 ~ 960mm/h
- Real-time recording function
- Digital memo function
- Recording speed : 5 sec. ~ 99 min. 59 sec.

Front Panel Identification



1	CH1-AL1 alarm output indicating lamp
2	CH1-AL2 alarm output indicating lamp
3	CH2-AL1 alarm output indicating lamp
4	CH2-AL2 alarm output indicating lamp
5	Recording start(>>>) / Recording stop(■) indicating lamp
6	Reservation recording(RE) indicating lamp
7	Recording paper status(P.ED) indicating lamp
8	Channel(CH) display
9	Measuring value(PV) display
10	Unit display
11	Mode(MODE) key
12	Up / down control key
13	Shift and special function key
14	Display for digital input setting