Datasheet

Paperless Recorder

AI-RN65

Arka Instruments LLP

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paperless recoder
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This industrial paperless recorder is equipped with a 7-inch TFT full-color high-contrast liquid crystal display, featuring a resolution of 1024*600. It seamlessly integrates various industrial standard signals, such as current, voltage, thermocouples, thermistors, resistors, and frequency (customizable), enabling real-time display, recording, limit monitoring, report generation, data communication, signal transmission, and functions like flow accumulation, as well as flow temperature and pressure compensation.

Applications

- Metallurgy
- Petrochemicals
- Construction materials
- Papermaking
- Power
- Food
- Pharmaceuticals
- Industrial water treatment

paperless recoder

Features

- multifunctional integration
- Rich interfaces
- High-capacity storage
- touch-sensitive operation
- high definition display
- Multi-screen display
- High anti-interference capability
- Wide voltage supply

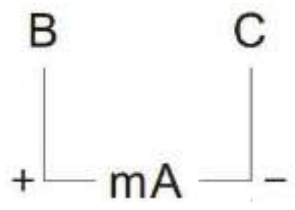
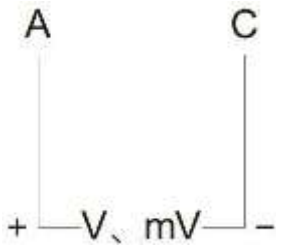
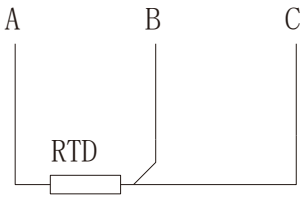
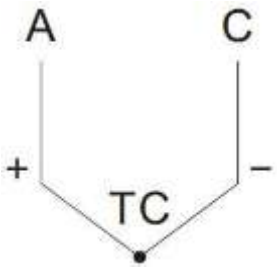
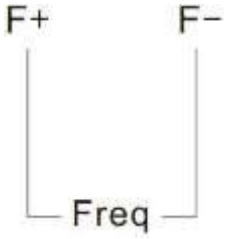
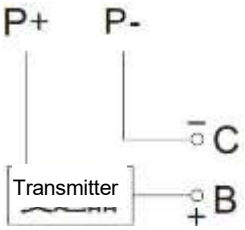
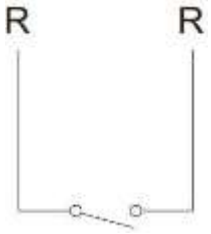
Principle

The principle of the paperless recorder is to capture and record data or computed data with time as the primary axis within the internal storage system of the instrument. This method eliminates the consumption of traditional recording tools such as paper and ink. The collected information is stored in the internal memory of the instrument, processed through calculations and simulations, and then displayed on a liquid crystal screen. The screen offers a rich array of display options, including values, curve graphs, bar charts, and alarm states.

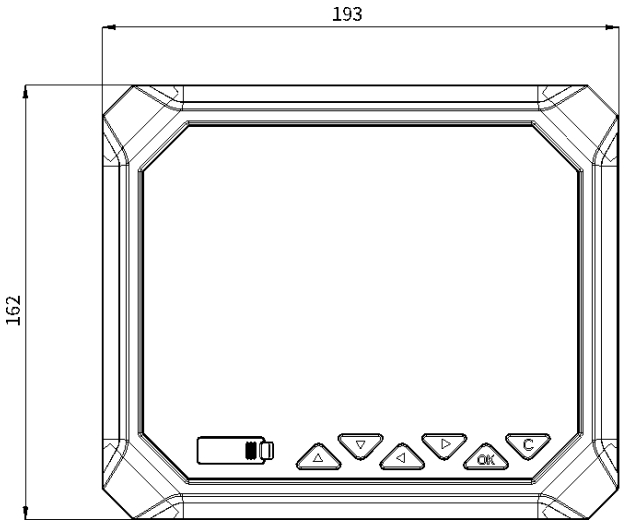
Parameters	
Feed type	250mA, 24 VDC
Communication interface and communication protocol	1-channel RS485 communication output interface, Modbus_RTU communication protocol
	1-channel Ethernet communication output interface, Modbus_TCP communication protocol
Power supply	AC:（85~264）VAC ,50/60Hz DC: 24VDC±10%
Power consumption	≤20W
Working environment	Temperature: 0℃-50℃ Relative humidity: 10%-85% (No condensation); Avoid corrosive gases. Note: In case of poor working environment, it is necessary to specify it when ordering.
Storage environment	Temperature: -20℃-60℃; Relative humidity: 5%-95% (No condensation)
Internal storage	128M Byte
External storage	Supports USB flash drive (standard USB 2.0 communication interface).
Sampling period	1s
Recording interval	Adjustable at 1s, 2s, 5s, 10s, 15s, 30s, 1min, 2min, 5min, 10min, 15min, 30min, and 1h.

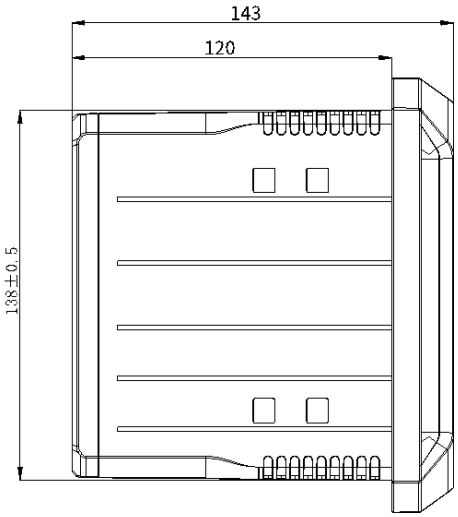
Wiring

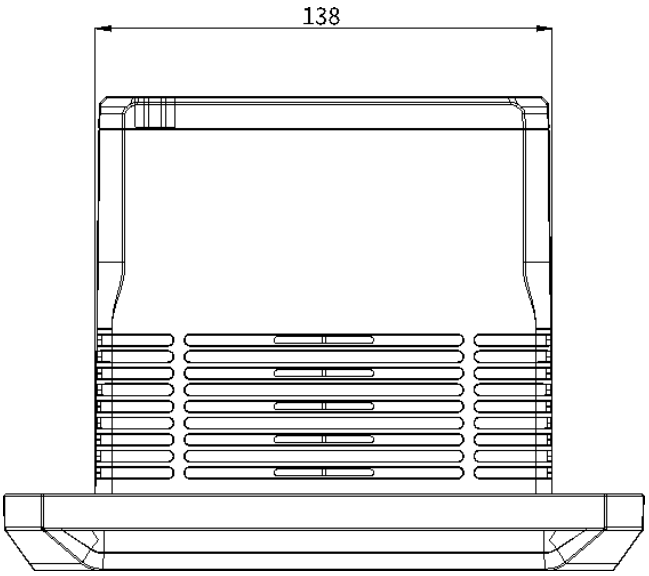
Wiring instructions

Current signal input	Voltage signal input
	
RDT input	**TC input**
	
Frequency input (customized)	**Passive transmitter 24VC output**
	
Relay output	**Current output**
	 Note: The voltage output is consistent with the current output. When wiring, connect the two resistors in the accessory package in parallel and connect them to I+ Between I -.

Dimensions





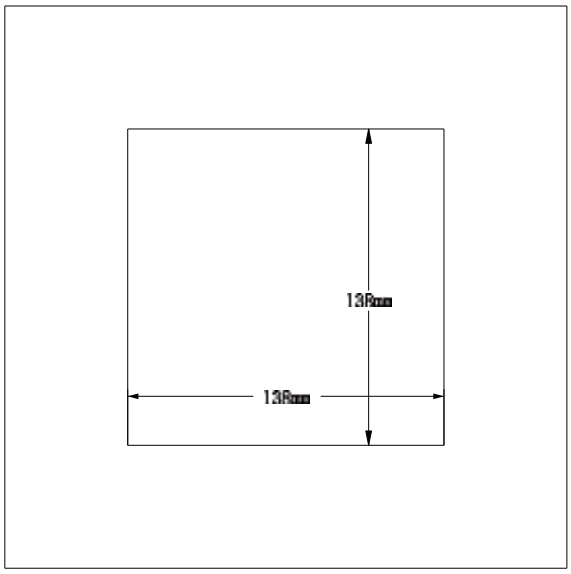


Installation

This recorder is designed for indoor panel mounting. The installation procedure is as follows:

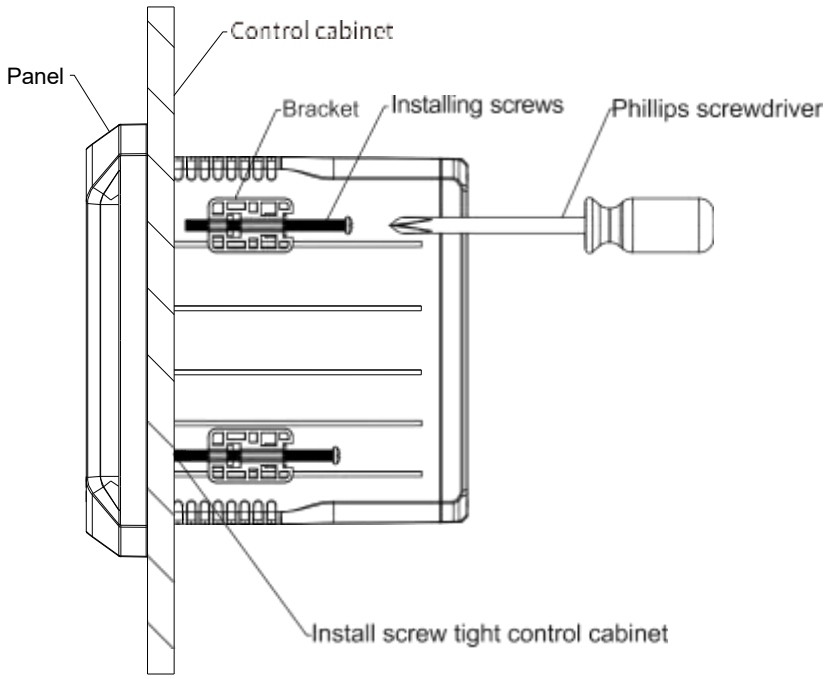
(1) Cut an opening in the panel (with dimensions of 138mm x 138mm). Ensure that the area around the cut-out is clean, smooth, and free of burrs.

Opening size:



(2) Insert the recorder into the cutout, and make sure that the recorder is tightly secured against the panel.

(3) Place the four mounting brackets that come with the recorder on both sides of the instrument, and then use a Phillips screwdriver to tighten the screws on the control cabinet.



Ordering Code

AI-RN65 -01-00-00-00-00-00-0-E1									Description
AI-RN65	-	-	-	-	-	-	-	-	
Input Channel	01								1
	02								2
	03								3
	04								4
	06								6
	08								8
	10								10
	12								12
	14								14
	16								16
	18								18
	20								20
	22								22
	24								24
	26								26
	28								28
	30								30
	32								32
	34								34
	36								36
	38								38
	40								40
	42								42
	44								44
	46								46
	48								48
	XX								Other
Communication input		00							None
		R1							RS485
Frequency input			00						None
			01						1
			02						2
			04						4
			06						6
			XX						Other
A Output				00					None
				1A					1channel4-20mA
				2A					2channel4-20mA
				4A					4channel4-20mA
				6A					6channel4-20mA
				XX					Other
Relay Output					00				None

	01		1
	02		2
	04		4
	06		6
	08		8
	10		10
	12		12
	14		14
	16		16
	18		18
	20		20
	22		22
	XX		Other
Communication output		00	None
		R1	RS485
		Y0	Ethernet
		Y1	RS485+Ethernet
		0	None
		A	Temperature and pressure compensation
		D	Temperature and pressure compensation + 1 flow accumulation
		E	Temperature and pressure compensation + 2 flow accumulation
		F	Temperature and pressure compensation + 3 flow accumulation
Computational function		G	Temperature and pressure compensation + 4 flow accumulation
		H	Temperature and pressure compensation + 5 flow accumulation
		J	Temperature and pressure compensation + 6 flow accumulation
		K	Temperature and pressure compensation + 7 flow accumulation
		L	Temperature and pressure compensation + 8 flow accumulation
Power Supply and Output			E1 220VAC, 1channel output24VDC 24VDC, 1channel output24VDC
			C1

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