

Hybrid Recorder HR-700 series

More or Less? How about both!



More: Bigger display 18mm LED allows a high level of visibility



Less: Overall size Compact, lightweight: Ideal for small scale control panels

Compact: 150mm in depth, 1.5kg in weight

Available for small panel mounting

Communication interface

Corresponds to FA (factory automation) system via communication interface, RS-232C (standard) or RS-485 (option)

Larger LED display

LED size: 18mm in height

Dust-proof • Drip-proof (IEC529 IP65)

Stands up to even harsh environments such as food related plants and kilns

Safety standard

UL/C-UL and CE marking

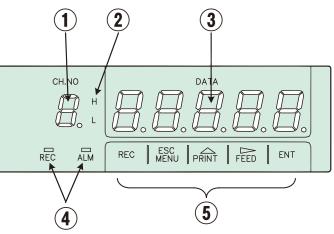
Model

HR-70 🗌 , 🔲 🗌			HR-700 (W144×H144×D150mm)		
Input point	1		1-point (Pen)	Multi-range system (Input types are selectable.)	
	2		2-point (Pen)		
	6		6-point (Dot printing)	(
Option		C5	Communication function (RS-485)		
		RE1	DI function (Pen)		
		RE6	DI function (Dot printing)		
		FL	Paper-empty detection function		
		LH3	Alarm output function (Pen)		
		LH6	Alarm output function (Dot printing)		

• When ordering, select the alphanumeric characters from the table above for ...

• When adding options, enter the code using a "comma".

Display and operation keys



①: Channel number display

Orange LED indicates Channel numbers 1 to 6.

2 : Alarm indicator

Red LED indicates the type of the alarm. [H] is lit when the alarm is High, and [L] is lit when the alarm is Low. Neither of them is lit when there is no alarm.

③: Data display

Indicates the process variable, date and year, chart feed speed or alarm value (orange).

④ : Status indicators

The [REC] (orange) is lit when recording. The [ALM] (red) is lit when the alarm is being activated.

$(\mathbf{5})$: Operation keys

Use these keys for setting and other operations.

Rated scale and accuracy

Innut	Panga		Measurement (Digital display)	Recording (analog)	
Input		Range	Measurement accuracy	Resolution	Recording accuracy
	K1 K2 K3 E1	-200.0 to1370.0°C -200.0 to 600.0°C -200.0 to 300.0°C -200.0 to 800.0°C	K1: \pm (0.15% of rdg+0.7°C) K2: \pm (0.15% of rdg+0.4°C) K3: \pm (0.15% of rdg+0.3°C) However, Range -200 to100°C, \pm (0.15% of rdg+1°C) \pm (0.15% of rdg+0.5°C)		
	E2	-200.0 to 300.0°C	\pm (0.15% of rdg+0.4°C)		
	E3	-200.0 to 150.0°C	±(0.15% of rdg+0.3°C)		
	J1 J2 J3 T1	-200.0 to 1100.0°C -200.0 to 400.0°C -200.0 to 200.0°C -200.0 to 400.0°C	J1, T1 : ±(0.15% of rdg+0.5℃) J2, T2 : ±(0.15% of rdg+0.4℃) J3 : ±(0.15% of rdg+0.3℃)		
	T2	-200.0 to 200.0°C	However, Range -200 to 100°C, \pm (0.15% of rdg+0.7°C)	0.1°C	
Thermocouple	R1 R2 S B	0.0 to 1760.0℃ 0.0 to 1200.0℃ 0.0 to 1760.0℃ 0.0 to 1820.0℃	R1, S, B: ±(0.15% of rdg+1°C) R2: ±(0.15% of rdg+0.8°C) However, R1, R2, S: Range 0 to 100°C, ±3.7°C Range 100 to 300°C, ±1.5°C B: Range 400 to 600°C, ±2°C (Accuracy is not guaranteed below 400%)		
	Ν	0.0 to 1300.0℃	\pm (0.15% of rdg+0.7°C)		Magguramont
	C	0.0 to 2320.0°C	$\pm (0.15\% \text{ of rdg} + 1^{\circ}\text{C})$		Measurement accuracy:
	PR40-20 0 to 1880°C		±(0.15% of rdg+1℃) However, Range 0 to 300℃, ±4.0℃ Range 300 to 800℃, ±3.0℃		\pm (0.3% of recording span)
	Au-Fe	0 to 300 K	\pm (0.15% of rdg+1K)	0.1K	
	PL-II U L	-100 to 1390℃ -200.0 to 400.0℃ -200.0 to 900.0℃	±(0.15% of rdg+0.7°C) ±(0.15% of rdg+0.5°C) However, Range -200 to100°C: ±(0.15% of rdg + 0.7°C)	0.1°C	
RTD	Pt100 1 Pt100 2 JPt100 1 JPt100 2	-200.0 to 650.0°C -200.0 to 200.0°C -200.0 to 630.0°C -200.0 to 200.0°C	\pm (0.15% of rdg+0.3°C) \pm (0.15% of rdg+0.2°C) \pm (0.15% of rdg+0.3°C) \pm (0.15% of rdg+0.2°C)	0.1℃	
		-10 to 10mV 0 to 20mV 0 to 50mV	±(0.2% of rdg+3 digits) ±(0.2% of rdg+3 digits) ±(0.2% of rdg+2 digits)	10 µ V	
DC voltage		-200 to 200mV	\pm (0.2% of rdg+3 digits)	100 µ V	
		-1 to 1V	\pm (0.1% of rdg+3 digits)	1mV	
		-10 to 10V	\pm (0.3% of rdg+3 digits)	10mV	
DC current	0 to 5V		\pm (0.2% of rdg+2 digits) \pm (0.2% of rdg+2 digits)	1mV 0.01mA	
De current		4 to 20mA	\pm (0.2% of rdg+2 digits)	0.0 IIIA	

· In the case of DC current input, connect a shunt resistor (sold separately)

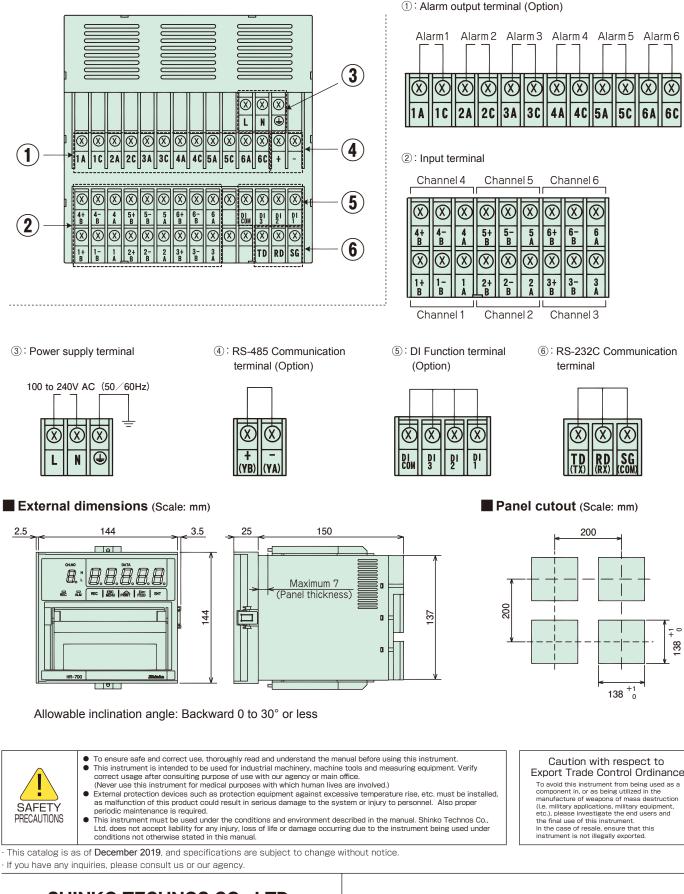
Standard specifications

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Multi-range (Types are selectable.) • Thermocoupte • De Volage • Thermocoupte • De Volage • Thermocoupte • De Volage • Thermocoupte • De Volage • Thermocoupte • De Volage (mV page Whot Durn teststor which is add separate/) • De Volage (mV page Whot Durn teststor whot is add separate/) • De Volage (mV page Whot Durn teststor whot is add separate/) • De Volage (mV page Whot Durn teststor whot is add separate/) • De Volage (mV page Whot Durn taskstor Whot adam • De Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV page Whot Durnou takm :: 10k.D or less. • Thermocoupte, DE Volage (mV	Measuring point	When ordering, one type can be selected from the following. 1-point (Pen): HR-701_2-point (Pen): HR-702_6-point (Dot printing): HR-706			
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• RTD					
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Accessories Chart paper: 1 volume, Ribbon cassette (Dot printing: 1, Pen: 1),					
Accessores		is protected by non-volatile memory.), Asynchronous print mode, Printer gap correction function			
Cartridge pen (1-pen: 1, 2-pen: 2), Packing: 1, Mounting brackets: 1 set, Instruction manual: 1 copy	Accessories				
		Cartridge pen (1-pen: 1, 2-pen: 2), Packing: 1, Mounting brackets: 1 set, Instruction manual: 1 copy			

Optional specifications

Communication function [C5]	Communication line: RS-485, Communication speed: 1200/2400/4800/9600bps
	Settable at 3 points (Maximum) Chart feed Start/Stop : Relay contact ON: Start Relay contact OFF: Stop
DI function	Changing chart speed : Changes 1st with tuning to ON and 2nd with OFF
[RE1] [RE6]	Comment printing : Prints comments with contact ON (Up to16 characters per line)
	Log printing : Prints with contact ON
	Date and time printing : Prints date and time with contact ON
Paper-empty	Detects the paper tray is empty, stops recording, and activates the alarm.
detection function [FL]	(When adding this option, [LH3] or [LH6] option needs to be added.)
	Output number
	Pen : 3 points (Built-in option, a contact)
Alarm output function	Dot printing : 6 points (Built-in option, a contact)
[LH3] [LH6]	Contact capacity : 250V AC Maximum 3A (Resistive load)
	30V DC Maximum 3A (Resistive load)
	125V DC Maximum 0.5A (Resistive load)

Terminal arrangement



SHINKO TECHNOS CO., LTD. **OVERSEAS DIVISION**

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