

HR-700 Series



*A smaller, lighter recorder
with RS-232C provided as standard.*

Shinko

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 writing type only)
	2	2-point (Pen writing type only)
	6	6-point (Dot printing type only)
Option	C5	Communication function (RS-485)
	RE1	DI function (Pen writing type)
	RE6	DI function (Dot printing type)
	FL	Paper-empty detection function
	LH3	Alarm output function (Pen writing type)
	LH6	Alarm output function (Dot printing type)

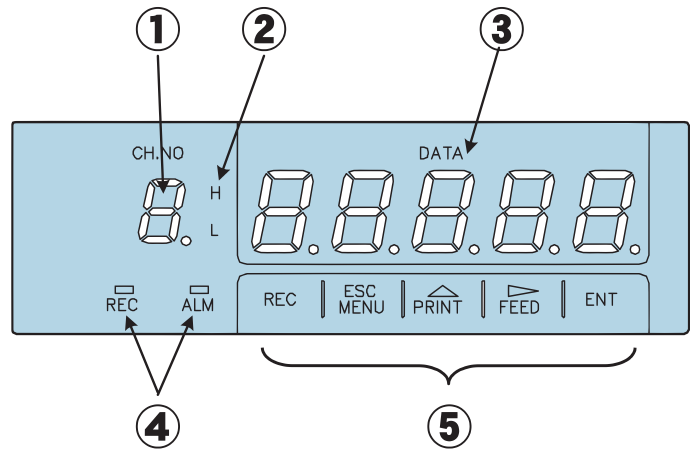
• When ordering, select the alphanumeric characters from the table above for □. When adding options, enter the code using a " comma " .

Rated scale and accuracy

Input	Range	Measuring (Digital display)		Recording (analog)
		Measuring accuracy	Resolution	Recording accuracy
Thermocouple	K1	-200.0 to 1370.0°C	K1 : ±(0.15% of rdg+0.7°C) K2 : ±(0.15% of rdg+0.4°C) K3 : ±(0.15% of rdg+0.3°C) However, Range: -200 to 100, ±(0.15% of rdg+1°C)	Measuring accuracy: ±(0.3% of recording span)
	K2	-200.0 to 600.0 °C		
	K3	-200.0 to 300.0 °C		
	E1	-200.0 to 800.0 °C	±(0.15% of rdg+0.5°C)	
	E3	-200.0 to 150.0 °C	±(0.15% of rdg+0.3°C)	
	J1	-200.0 to 1100.0°C	J1, T1: ±(0.15% of rdg+0.5°C) J2, T2: ±(0.15% of rdg+0.4°C) J3 : ±(0.15% of rdg+0.3°C) However, Range: -200 to 100°C, ±(0.15% of rdg+0.7°C)	
	J2	-200.0 to 400.0 °C		
	J3	-200.0 to 200.0 °C		
	S	0.0 to 1760.0°C		
	R1	0.0 to 1760.0°C	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°C)	
	R2	0.0 to 1200.0°C		
	B	0.0 to 1820.0°C		
	N	0.0 to 1300.0°C	±(0.15% of rdg+0.7°C)	
	E2	-200.0 to 300.0 °C	±(0.15% of rdg+0.4°C)	
C	0.0 to 2320.0°C	±(0.15% of rdg+1°C)		
PR40-20	0 to 1880°C	±(0.15% of rdg+1°C) However, Range 0 to 300°C, ±4.0°C Range 300 to 800°C, ±3.0°C		
Au-Fe	0 to 300 K	±(0.15% of rdg+1K)	0.1K	
PL-II	-100 to 1390 °C	±(0.15% of rdg+0.7°C)		
U	-200.0 to 400.0°C	±(0.15% of rdg+0.5°C) However, Range -200 to 100°C: ±(0.15% of rdg+0.7°C)	0.1°C	
L	-200.0 to 900.0°C			
T1	-200.0 to 400.0 °C			
T2	-200.0 to 200.0 °C			
RTD	Pt100 1	-200.0 to 650.0°C	±(0.15% of rdg+0.3°C) ±(0.15% of rdg+0.2°C) ±(0.15% of rdg+0.3°C) ±(0.15% of rdg+0.2°C)	0.1°C
	Pt100 2	-200.0 to 200.0°C		
	JPt100 1	-200.0 to 630.0°C		
	JPt100 2	-200.0 to 200.0°C		
DC voltage	-10 to 10mV	±(0.2% of rdg+3 digits)	10 μV	Measuring accuracy: ±(0.3% of recording span)
	0 to 20mV	±(0.2% of rdg+3 digits)		
	0 to 50mV	±(0.2% of rdg+2 digits)	100 μV	
	-200 to 200mV	±(0.2% of rdg+3 digits)		
	-1 to 1V	±(0.1% of rdg+3 digits)	1mV	
	-10 to 10V	±(0.3% of rdg+3 digits)	10mV	
0 to 5V	±(0.2% of rdg+2 digits)	1mV		

• In the case of DC current input, shunt resistor (sold separately) is needed.

Display and operation keys



①: Channel number display

Orange LED indicates Channel number 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, time, setting value and setting item by orange indicator.

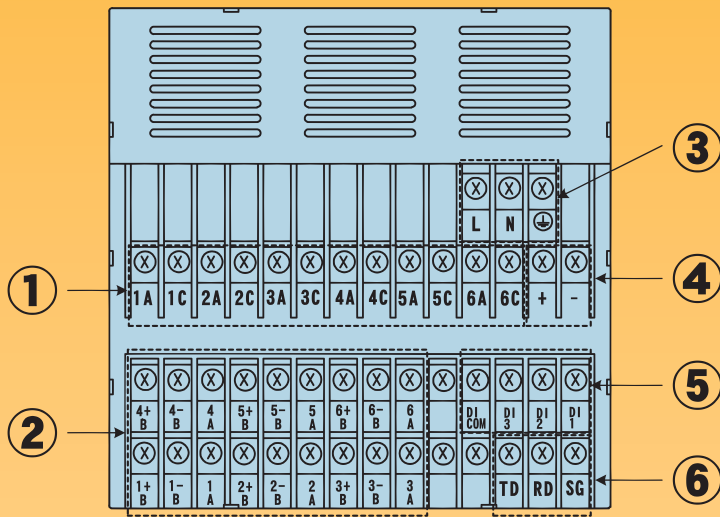
④: Status indicators

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

⑤: Operation keys

Use these keys for setting and other operations.

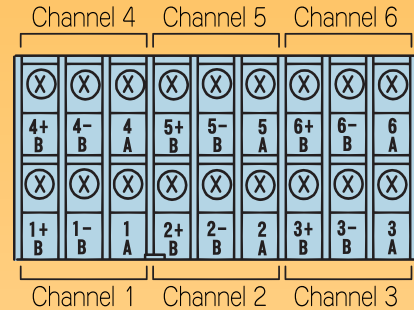
Terminal arrangement



①: Alarm output terminal (Option)

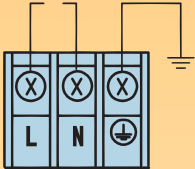


②: Input terminal

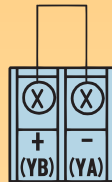


③: Power supply terminal

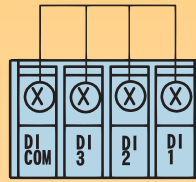
100 to 240V AC(50/60Hz)



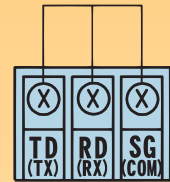
④: RS-485 Communication terminal (Option)



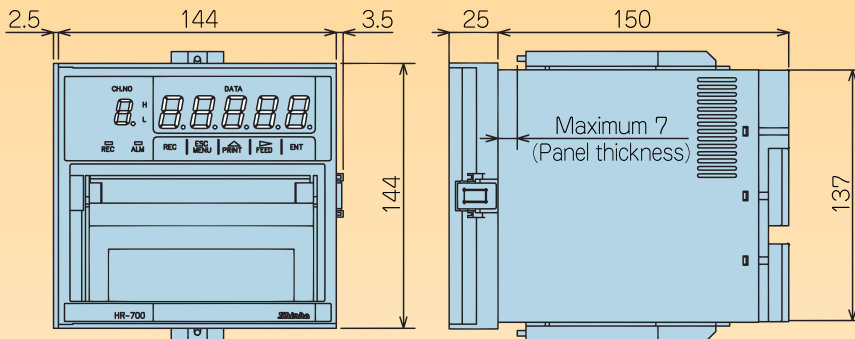
⑤: DI Function terminal (Option)



⑥: RS-232C Communication terminal

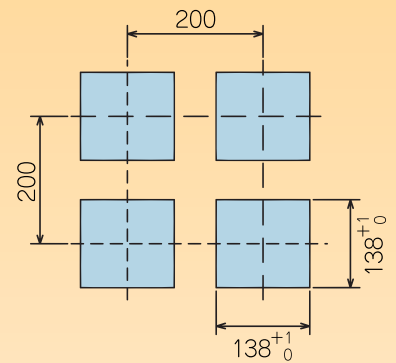


External dimensions (unit : mm)



Allowable inclination angle : Backward 0 to 30° or less

Panel cutout (unit : mm)



- To ensure safe and correct use, thoroughly read and understand the manual before using this instrument.
- This instrument is intended to be used for industrial machinery, machine tools and measuring equipment. Verify correct usage after consulting purpose of use with our agency or main office. (Never use this instrument for medical purposes with which human lives are involved.)
- External protection devices such as protection equipment against excessive temperature rise, etc. must be installed, as malfunction of this product could result in serious damage to the system or injury to personnel. Also proper periodic maintenance is required.
- This instrument must be used under the conditions and environment described in the manual. Shinko Technos Co., Ltd. does not accept liability for any injury, loss of life or damage occurring due to the instrument being used under conditions not otherwise stated in the manual.

Caution with respect to Export Trade Control Ordinance

To avoid this instrument from being used as a component in, or as being utilized in the manufacture of weapons of mass destruction (i.e. military applications, military equipment, etc.), please investigate the end users and the final use of this instrument. In the case of resale, ensure that this instrument is not illegally exported.

- This catalog is as of December 2005, and specifications are subject to change without notice.
- When inquiring, please consult our agency or the shop where you purchased the unit.

SHINKO TECHNOS CO., LTD. OVERSEAS DIVISION

Reg. Office : 2-5-1, Senbahigashi, Minoo, Osaka, 562-0035, Japan
 Tel : 81 - 72 - 727 - 6100
 Fax : 81 - 72 - 727 - 7006
 URL : <http://www.shinko-technos.co.jp>
 E-mail : overseas@shinko-technos.co.jp