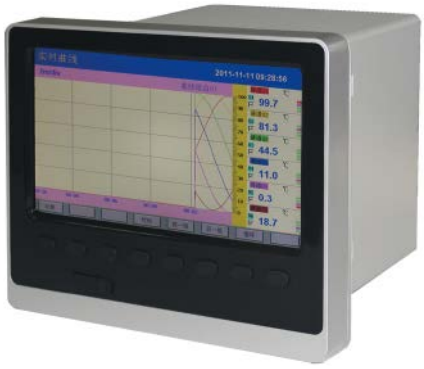
HGPR-8100 / 8700 Paperless Recorder

I. Overview

HGPR-8100/8700 series color paperless recorder (capable of recording by means of configuration: standard voltage, standard current, thermocouple, thermal resistance, millivolt, etc.). It can be equipped with 18-channel alarm output or 12-channel analog transmitting output, RS232/485 communication interface, Ethernet interface, mini-printer interface, USB interface and SD card socket; can provide sensor distribution; is equipped with powerful display function, real-time curve display, historical curve retrospection, bar graph display, alarm list display, etc.



II. Main Technical Parameters

Input measurement	
Input signal	Current: 0～20mA, 0～10mA, 4～20mA, 0～10mA square root, 4～20mA square root Voltage: 0～5V, 1～5V, 0～10V, ±5V, 0～5V square root, 1～5V square root, 0～20 mV, 0～100mV, ±20mV, ±100mV Thermal resistance: Pt100, Cu50, Cu53, Cu100, BA1, BA2 Linear resistance: 0～400Ω Thermocouple: B, S, K, E, T, J, R, N, F2, Wre3-25, Wre5-26
Output	
Output signal	Analog output: 4～20mA (load resistance ≤380Ω), 0～20mA (load resistance ≤380Ω), 0～10mA (load resistance ≤760Ω), 1～5V (load resistance ≥250KΩ), 0～5V (load resistance ≥250KΩ), 0～10V (load resistance ≥500KΩ)
	Alarm output: normally open relay contact output, where the contact capacity is 1 A/250 VAC (resistive load) (! Note: Please do not carry load directly in case the load exceeds the contact capacity of relay.)
	Feed output: DC24 V ± 1, load current ≤ 250 mA
	Communication output: RS485/RS232 communication interface, 1,200 ~ 57,600 bps baud rate (able to be set); standard MODBUS RTU communication protocol; the communication distance of RS-485 can be as long as 1 kilometer; the communication distance of RS-232 can be as long as 15 m; Ethernet communication interface, where the communication speed is 10 Mb/s.
Comprehensive parameters	
Measurement accuracy	0.2%FS±1d
Sampling period	1 s
Setting mode	Panel soft touch; setting values of parameters are locked with passwords and will be saved permanently in case of outage.

Display method	7-inch 800 * 480 dot-matrix widescreen TFT high brightness color graphics and LCD display; LED backlight; with clear pictures and wide visual angle. Display contents can be composed of characters, figures, conditional curves, bar graphs, etc.; through panel button, page turning, forward and backward search of historical data, time scale change of curves, etc.
Data backup	Data backup and conversion storage on USB flash disk and SD card are supported, where the maximum capacity is 8 GB; FAT and FAT32 formats are supported.
Storage capacity	The capacity of the internal Flash memory is 64 M Byte.
Recording interval	Nine options including 1, 2, 4, 6, 15, 30, 60, 120 and 140 s can be selected.
Storage length (continuous record without power-off)	24 days (1 s interval) – 5825 days (240 s interval) Calculation formula: recorded time (day) = $\frac{64 * 1{,}024 * 1{,}024 * \text{recording interval (S)}}{\text{Channel number} * 2 * 24 * 3{,}600}$ (! Note: For calculation of channel number, the program divides the channel number into five options, namely 4, 8, 16, 32 and 64, and the bigger figure should be regarded as the channel number for calculation in case the channel number of the instrument is between the said two options. For example: If the channel number of the instrument is 12, then 16 should be adopted in the formula.)
Environment condition	Environment temperature: -10 ~ 50°C; Relative humidity: 10 ~ 90% RH (without condensation of moisture); Avoidance of contact of high corrosive gas. (! Note: If the field environment is poor, special instruction should be given when ordering.)
Working power supply	AC 85 ~ 264 V (power supply of the switches), 50/60 Hz; DC12 ~ 36 V (power supply of the switches);
power consumption	≤20 W.

III. Ordering Instruction

HGPR-81□-□-□-□-□

12-channel input ①②③④⑤

HGPR-87□-□-□-□-□

48-channel input ①②③④⑤

①Number of Input Channel		②Number of Transmitting Output Channel (remark)	
Code	Input channel	Code	Output channel
01	1-channel input	X	No output
02	2-channel input	01	1-channel output
03	3-channel input	02	2-channel output
.	.	03	3-channel output

.	.	.	.
.	.	.	.
47	47-channel input	.	.
48	48-channel input	11	11-channel output
		12	12-channel output
③Number of Alarm Output Channel (remark)		④Power Supply	
Code	Alarm channel	Code	Voltage range
X	No output	A	AC85 ~ 264V (50/60 HZ)
01	1-limit alarm	D	DC12 ~ 36V
02	2-limit alarm		
03	3-limit alarm		
.	.		
.	.		
17	17-limit alarm		
18	18-limit alarm		
⑤Additional functions (You can select all the following functions with "/" to separate them, and can omit the unselected functions.)			
Communication output		USB conversion storing function	
Code	Type of communication output	Code	USB conversion storage
D1	RS485 communication	U	USB conversion storage (USB flash disk)
D2	RS232 communication		
Print function		SD card extended function	
Code	Print interface	Code	SD card extension
D3	RS232C print	SD	SD card extension (SD card)
Feed output		Ethernet communication function	
Code	Feed output	Code	Ethernet communication
P	DC24 V	E	Ethernet communication

Remark 1: In terms of HGPR-8100 and HGPR-8700 recorders, their functions are compatible, whose difference lies in that HGPR-8100 recorder is equipped with optional 12-channel input while HGPR-8700 recorder is equipped with optional 48-channel input.

2: Number of analog output channels + number of relay output channels ≤ 18.

IV Installation Dimension (Unit: mm)