UNIVERSAL

Paperless Recorder

Max. 32 Channels, 180x150x160mm

Model No.: MPR5000S

General Specifications

GS 18A16D01-01EN

PAPERLESS RECORDER

UNIVERSAL

MPR5000S

■ Overview

MPR5000S is universal color paperless recorder, max 32 channels, high accuracy, universal use, easy operation, to be aimed to display, measurement the processes parameters such as temperature, humidity, pressure, flow, vibration etc in various industry application.

MPR5000S, 7'' color LCD
Universal Color Paperless Recorder
180X150X160mm, Max.32 channels

■ Feature

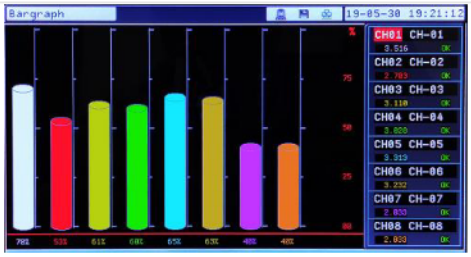
- **High accuracy: +-(0.2%FS +1) digit, 7''TFT LCD display**
- **Programmable universal input: T.C., RTD, mA, VDC, mV**
- **Input channels no.: 1,2, 3, 4, 5, 6….32 channels**
- Built in thermocouple automatic cold junction compensation
- **Output: Max. 16 relay, 24VDC auxiliary power supply, Print**
- **RS485 communication port, standard MODBUS-RTU protocol, Ethernet TCP/IP configurable with HMI, SCADA, OPC serve etc.**
- **Flow totalize with temperature, pressure compensation**
- **Match Function: +, -, x, /, average, max, mini**
- **Powerful** Various curve, barograph, digit for different type display
- **Strong PC software to display data in digital curve, Print and export to excel for further analysis**
- Wide power supply: 100-240VAC

Memory Flash Data Saving, Various Screen Display, Easy operation

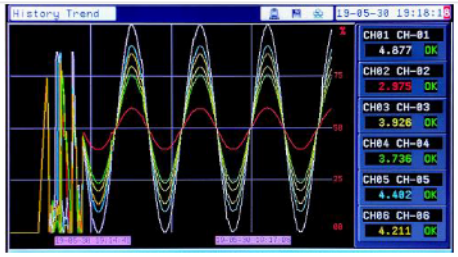
Digital Display 2 channels/screen

Digital Display 6 Channels/screen

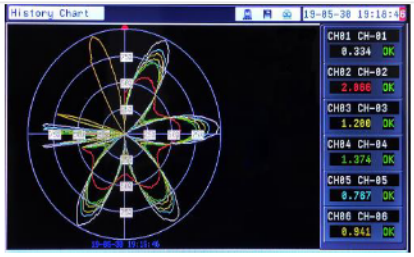
Digital Display 32 Channels/screen



Digital &Barograph Display



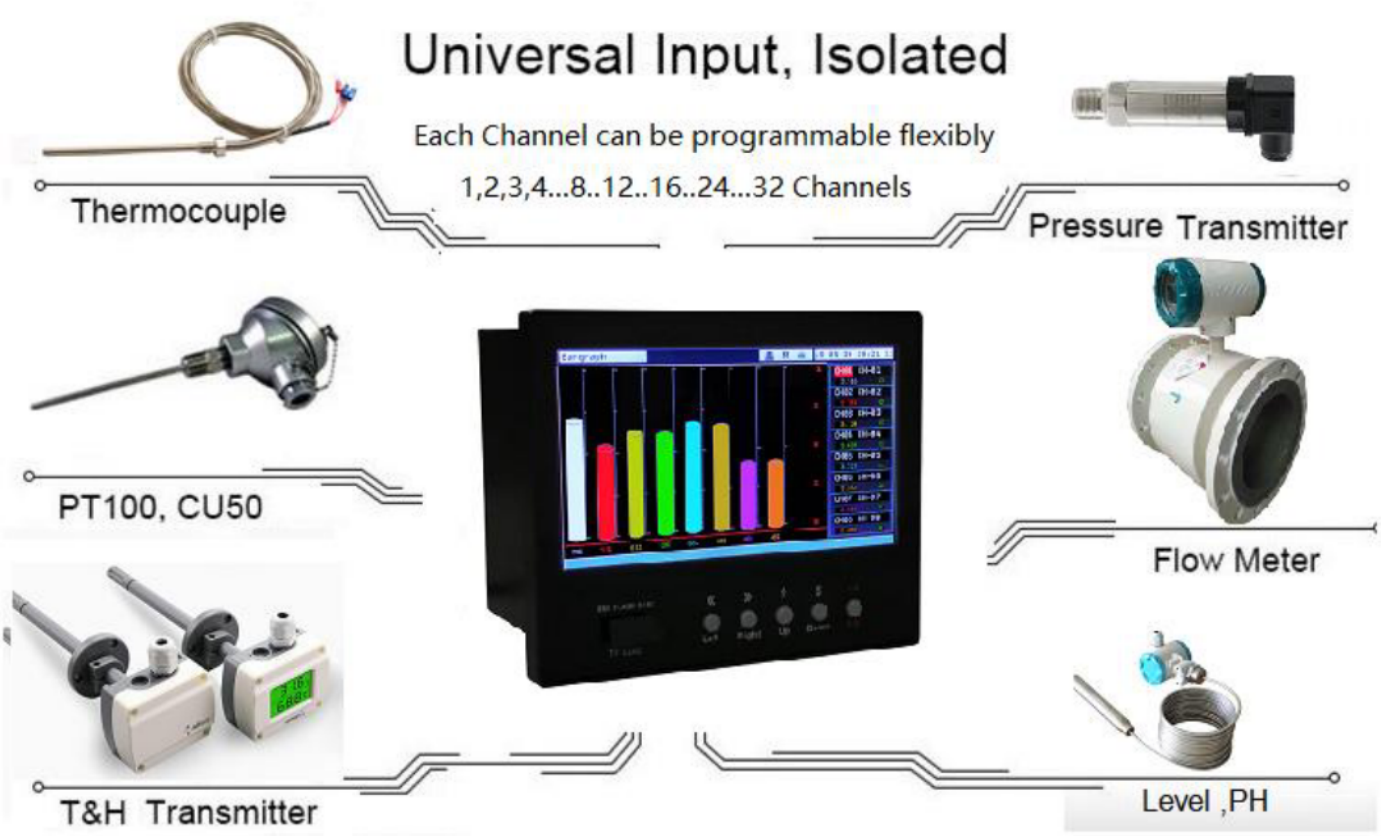
Digital &Curve Display



Digital &Circular Chart Display

Memory Flash Drive Data Saving

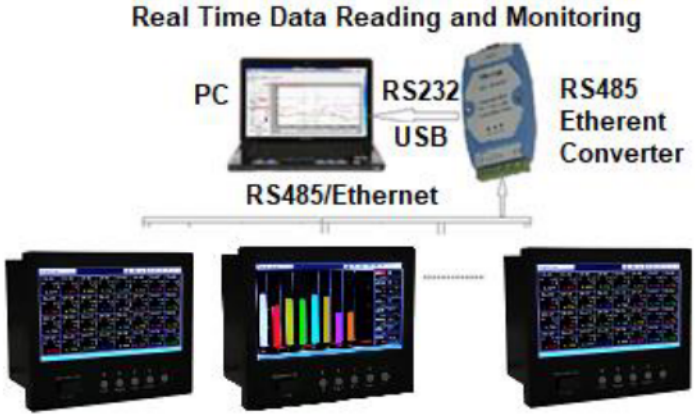
Provides flexibility and variety in the handing of record data



USB Pen Driver for Data Transfer

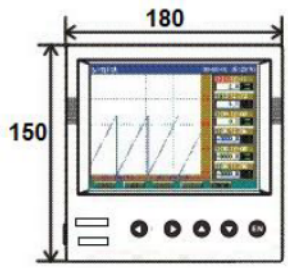
Free 8GB USB pen driver and PC software for data transferring to PC, plug and play, easy to operation, data transferred automatically within some minutes when u need to transfer data and insert pen driver

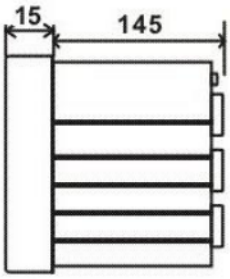
Configuration with SCADA, PLC, HMI, OP sever, IOT, CLOUND page flexibly

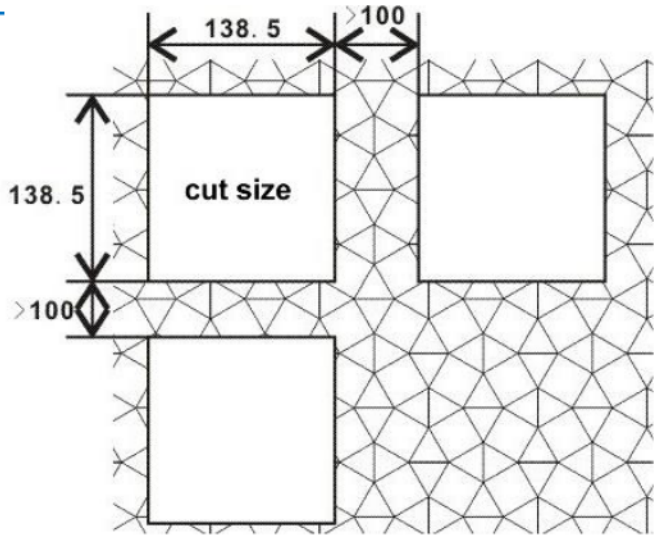


Standard RS485/Ethernet MODBUS protocol, configurable with SCADA, DCS, PLC, HMI, OPC server ,IOT, Cloud for real time reading and monitoring in control room remotely, Baud rate: 9600 default,4800,19200; reading and writing functions

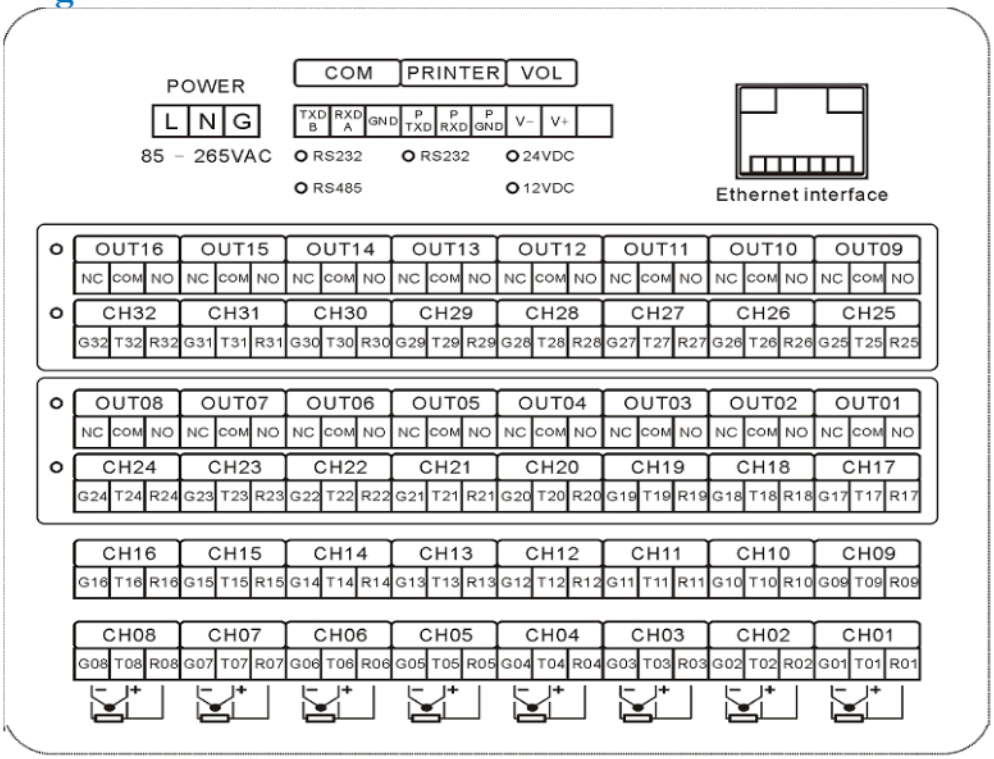
Dimension (mm)

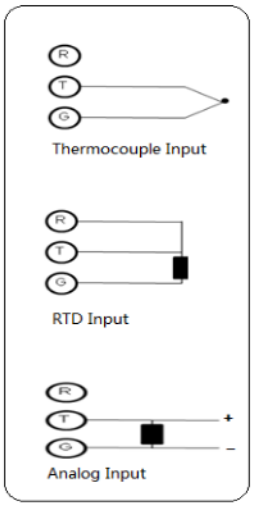






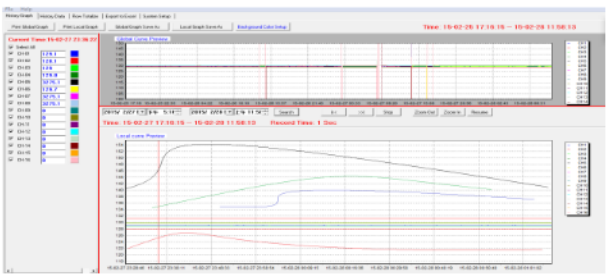
Diagram





Note: When 4-20ma input, please connect 250ohm resistor in parallel connection in T, G terminal; When 0-10ma input with 500ohm

PC Software



PC Software for USB Data Transferring, free when ex-work

Used for history data checking and further analysis

. History Data will be displayed in digit and trend

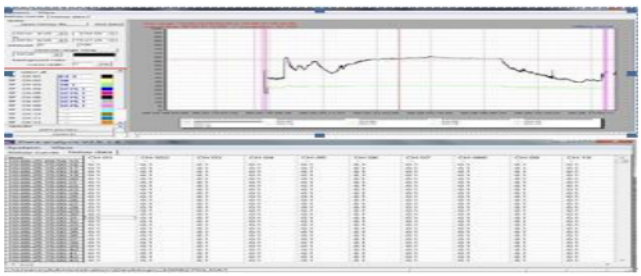
. History Data can be exporting the data as Excel for further analysis

. History Data can be printed in the curve by printer directly

. Flow Totalizer data display in shifty, weekly, monthly

Suitable for PC Version: Window 2000/XP, VISTA, Win7, 8, 10

Installation: Please copy our software in your PC directly



DCS Software for RS485 Communication, option

Used for real time mornitoring&reading while data memory

. Data in will be displayed in digit and curve

. History Data can be exporting the data as Excel for further analysis

. History Data can be printed in the curve by printer directly

Suitable for PC Version: Window 2000/XP, VISTA, Win7, 8, 10

Installation: Please copy our software to your PC directly

■ Specification

Input		Input Type		Measured Range	Input Independence
Input No.	1, 2,3, 4,5,6…….32	RTD	Pt100	-200 to 600℃	>20MΩ
Thermocouple Input	K, J, T, E, R, S, B, N, Wre526, Wre325		CU50	-50 to150℃	>20MΩ
RTD Input	Pt100, CU50, CU100		CU100	-50 to150℃	>20MΩ
Analog Input	4-20mA, 0-10mA, 0-5V, 1-5V, 0-10VDC	T.C	K	-50 to 1300℃	>20MΩ
mV Input	0－20mV,0-60mV, 0-100mV, 0-500mV		J	0 to 1000℃	>20MΩ
Isolation	photoelectric isolation		T	-200 to 350℃	>20MΩ
Accuracy	± (0.2%FS +1) digital		E	0 to 800℃	>20MΩ
Resolution	0.1℃ when temperature input		R	-50 to 1700℃	> 20MΩ
Sample time	1 second per 8 channels		S	-50 to 1700℃	> 20MΩ
Decimal No.	0-4 programmable; 1 when temperature		B	300 to 1800℃	>20MΩ
T.C. cold compensation	Built- in auto. Compensation		N	0 to 1300℃	>20MΩ
Compensation Tolerance	Max.±1℃		Wre526	0-2300℃	>20MΩ
Channel-GND Isolation	1000VAC		Wre325	0-2300℃	>20MΩ
Channels ‘Isolation	400VAC	Analog	4-20mA	-20000 to 20000	250 Ω
Temperature shift	50PPM		0-10mA	-20000 to 20000	500Ω
CMR Ratio	85-110dB		0-5VDC	-20000 to 20000	500KΩ
T.C. wire resistor	Less than 1000Ω		1-5VDC	-20000 to 20000	500KΩ
RTD wire resistor	max1000Ω per wire, should same each wire		0-10VDC	-20000 to 20000	500KΩ
Inner CPU	32bits ARM CPU, high performance	mV	0-60mV	-20000 to 20000	>20MΩ
Hardware watchdog	CPU inner integration for long-term stability		0-100mV	-20000 to 20000	>20MΩ

Memory		Display	
Memory Capacity(≤CH16 Memory Capacity(≥CH16	90days x Record Interval Time/CH numbers 180days x Record Interval Time/CH number	LCD Size	7” color TFT LCD
Record interval time	1-3600seconds, programmable by key	LCD Resolution	640x480 TFT color LCD
CH Numbers	1,2,3,4,5,6…32, ordered total channel ‘no.s	Interval time	1-3600 seconds, set flexibly
Memory type	NOR Flash memory	Data Display Type	Digit, curve, barograph, chart;
Data transfer Media	8GB USB pen driver; TF card auto.	Background	50,000hours (lifespan)
Transferred data file	≤CH16: 16MB,≥CH16: 32MB in recorder	Screensaver	0-30,000second, set flexibly
Data File Name	Year/month/Day/Address.dat: 19031801.dat	Engineer unit	℃, %, psi,bar,m3/hr, ppm…..programmable
Full capacity memory	earliest data replaced by newest data	Resolution	32 Bit AD inner, final resolution:16 bit
Data Format	Binary format or cannot read or write	Display	5 digits; Flow totalize:11 digits

Outputs (Option)		Others	
Relay	Max. 16 outputs, programable	Power Supply	100-240VAC, 47-63Hz;
Communication	RS485, Standard MODBUS-RTU	Consumption	Maximum 20VA (20W)
	Ethernet Standard MODBUS-TCP/IP	Insulation	Power to ground (housing) > 1500VAC
Printing	RS232 printing port	Case material	Metal for case and bezel, Acrylic panel (ip20)
Flow Totalize	With temperature pressure compensation	Mounting	Panel flush mounting
Math	+,-, x,/, mini, max, average	Size/Net Weight	180X150X160mm/2.4KG
Feed	12VDC, 24VDC	Working Ambient	T: 0-50 deg CH: 10%-85 % (No dew)

■ Output Specification (Option)

Relay Output		Flow Totalize	
Output No.	Max. 16 outputs	Display Type	Flow rate, Flow totalize, batch totalize
Relay type	NO+NC; 220VAC/30VDC/3A	Flow rate	-20000 to 20000, 5 digits
Output type	programmable, Individual output per channel or Common output for all channel,	Flow Totalize	0.0 to 2000000000.0, 11digits
Alarming type	HA, HHA, LA, LLA, DIFF. per channel	Batch Totalize	0.0 to 200000000.0, 10digits
Alarming display	HA, HHA, LA, LLA will be flashing when alarming occurs in screens	Decimal no.	Flow rate: 0-4, programable
Serial Communication output			Totalizer: 1-5, programable
Output Type	RS485, RS232 serial port output	Compensation	Temperature, pressure compensation
Isolation	Photoelectrical isolated	Com. Type	superheating steam, saturated steam, gas linear pressure, linear temperature
Function	read and write the data and parameter	Square root	Off, different pressure on
Protocol	Standard MODBUS-RTU protocol		different pressure off
Baud rate	4800, 9600, 19200	Engineer unit	Flow rate: Kg/h, kg/s, t/h, M3/hr…..
Address	0-253, programmable		Flow totalize: kg, t, m3….
Cable	RS485 shielded twisted pair cable		Batch totalize: kg, t,m3….
Ethernet Communication Output		**Math**	
Output	Ethernet communication output	Channel no.	1-32 channels
Isolation	Photoelectrical isolated	Math type	Plus.: +, Minus: -, multiply, division: ÷
Function	read and write the data and parameter		Average, Max. Min.
Protocol	Standard MODBUS-TCP/IP protocol	Decimal No.	0-4, programmable
Printing Function		**Polyline Math**	
Output Type	RS232 printing port	Function	Used for value polyline offset
Data Type	History data in digital or curve	Channel no.	1-16 channels
Resolution	240dots/line	Polyline no.	0-6, programmable
Interval time	1-30000 seconds, programmable	Range	-20000 to 20000
Printing time	Programmable as required	Decimal no.	0-4, programmable
Printer (Suggested)		**PC software**	
Type	Dot Matrix, Ribbon mini printer	PC version	Window 2000/XP, VISTA, Win7, 8, 10
Resolution	96dots/line,	PC hardware	30MB or more
	144dots/line,	Installation	Please copy it to your PC directly
	240dots/line	PC software	free, Used when USB drive data transfer
size	122.6x66.6x73mm	Functions	Display the history data in digital and curve
Cut size	103mm(W)x57mm(H)x65mm(D)		Export the data as excel formal further
Net Weight	1kg		Print the history data in curve by printer
Paper Width	44mm/57mm		Flow totalize display in shift, week, month
Print Width	32mm/48mm	DCS software	Used for RS485 communication, option
Power supply	5VDC,1.5A	Functions	Real time reading, monitoring while memory

■ Order Code

MPR5000S color paperless recorder, 180mm×150mm×160MM （Cutout size：138x138mm）									Description
MPR5000S	-X	-X	-X	-X	-X	-X	-X	-X	MPR5000S universal paperless recorder
Channels No.	-01								1 channel
	-02								2 channels
	-03								3 channels
	-XX								……..
	-31								31 channels
	-32								32 channels
Communication Output									None
		-C1							photoelectric- isolated RS485 communication
		-C2							photoelectric- isolated RS232 communication
		-C3							photoelectric- isolated Ethernet communication
Flow Totalize, Math Function									None
			-F						Flow totalizer with Temperature, Pressure Compensation; Math Function
Relay Output									None
				-NOC					1 Relay output: NO+NC ,30VDC/3A, 220VAC/3A
				-2NOC					2 Relay output: NC+NC ,30VDC/3A, 220VAC/3A
				……					…….
				16NOC					16 Relays output: NO+NC ,30VDC/3A, 220VAC/3A
Auxiliary power supply									None
					-P3				24VDC auxiliary power supply
					-P2				12VDC auxiliary power supply
Print Output									None
						-P			RS232 Printing port for mini printer
Power Supply							-N		100-240VAC
							-D		24VDC
High Resolution 0.01 ℃ of Temperature measurement Specified Functions									None
								SP	Pt100-2:Pt100 input: -100 to 300 ℃, Resolution:0.01degc, Acc.:+-0.05%FS :+-0.2℃ Remove CU100 signal
								SK	K-300:K thermocouple input: -100 to 300℃, Resolution:0.01degc,Acc.:+-(0.05%FS+1) ℃: +-1.2℃； Remove Wre326 signal
								ST	T-300:T thermocouple input: -100 to 300℃, Resolution:0.01degc, Acc.:+0.05%FS :+-1.2℃ Remove Wre526 signal
								SPKT	PT100-2, K-300, T:300 signal all included

Note: Order Code: E.g.: MPR5000S-06- C1-F-NOC-N: universal color paperless recorder, 6 channels, NO+NC, 3A, RS485 communication output, 100-240VAC, Flow totalizer with temperature and pressure compensation, math Function, 100-240VAC, USB data transferring and PC software.

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