INTRODUCTION

The Metravi TP700 Multiple Channel Data Logger features high-definition display graphs, digital graphs, bar graphs, data overview, etc.

The interface is simple and intuitive, and the settings and operation is convenient.

It enable simultaneous testing of temperature, voltage, humidity, pressure, flow, liquid level, current, frequency, vibration, speed, etc.

IoT cloud platform

Thermocouple	Thermal Resistance	4-20mA	0-20mA

0-5V	0-10V	Universal Input

FEATURES

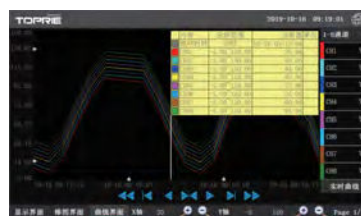Comprehensive display

Number display

Alarm display

Real-time curve

Historical curve

Bar graph display

- 0.1S high speed acquisition, resulting in smoother curves
- Strong anti-interference ability, which results in highest accuracy
- 7" Touchscreen, colour display
- 8 groups of different modules can be inserted to realise data acquisition, relay output, power supply and wireless transmission, etc.
- Data logger RS485 can connect external acquisition modules and increase numbers of channels*
- Up to 200 Channels*
- A single computer software can be connected to multiple recorders in the same LAN through the network cable.
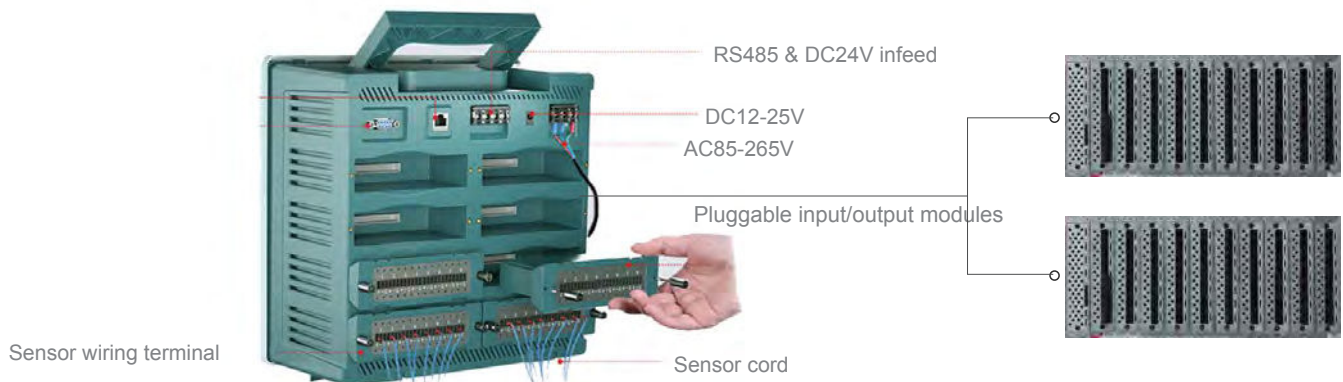- Can be connected to IoT platform remote monitor

*Technical Specifications & Appearance are subject to change without prior notice

TECHNICAL SPECIFICATIONS

Power supply	AC:100V~240V, DC:12~25V; two way
Lithium power supply TP1701	Adpot 12V, 4000mAH large polymer li thium battery, outtput voltage DC 12.6V（optional)
Power consumption	≦25VA（actual power consumption is related to the numbers of channel)
Numbers of channel	1-64 channel（up to extend 200 channels)
Input signal	Thermocouple：K，T，J，B，N，R，E，S，WRE5-26，WRE3-25
	Thermal resistance：PT100,PT1000
	Current（DC）：4~20mA，0 ~20mA
	Voltage（DC）：0~5V，0~10V，±20mV，±100mV
Isolated withstand measurement	AC/DC 400V (Differential between channels)
Record mode	1~19999 secs self-setup
Record memory	700 (standard memory)
	2G (large memory)
Alarm type	Upper and lower limit alarms, each channel has 4 modes (Upper1, Upper 2, Lower 1, Lower 2)
Relay	8 channels normal open relay 220VAC/ 2A
Infeed output	1 channel 24VDC power distribution
Communication	Standard ethernet, RS485, RS232
	Standard ModBus RTU ModBus TCP communication protocol
Working environment temperature	-20°C ～ 70°C
Working environment humidity	＜90%R.H（No condensation）
Storage environment temperature	0°C ～ 50°C
Storage environment humidity	＜85%R.H（No condensation）
Body material	Fireproof ABS
Dimensions	288*288*200mm
Installing opening hole size	278*278mm+1mm

BAC OF THE DATA LOGGER
8 groups of different modules can be inserted for various data acquisitions and functions, like relay output, power supply and wireless transmission, etc.

RS485 & DC24V infeed

DC12-25V

AC85-265V

Pluggable input/output modules

Sensor wiring terminal

Sensor cord

APPLICATIONS

- **Battery R&D Evaluation Test:** simultaneous measurement of temperature, voltage & current.

- **Automobile Testing:** Evaluate whether the heat generated inside the motor is effectively cooled, and measure distributed temperature of the motor.

- **Test Home Appliances:** Collect and record data such as temperature, humidity, flow, and power consumption for washing machines, freezers, and wine coolers, etc.

TECHNICAL SPECIFICATIONS

Input Type		Range (indicated range)	Accuracy (quoted error, absolute error)	Resolution
DC Voltage	0-10V	-0.5V ~ +11.000V	0.001% F.S. ±0.0001V	0.01V
	0-5V	-0.5V ~ +5.500V	0.002% F.S. ±0.0001V	0.01V
	±20mV	-21mV ~ +21mV	0.0025% F.S. ±0.001mV	0.01mV
	±100mV	-110.0mV~110mV	0.0005% F.S. ±0.001mV	0.01mV
	4-20mA	+3mA ~ +21.00mAV	0.005% F.S. ±0.001mA	0.01mA
DC Current	K	-60°C ~ +1372°C	±(0.05% rdg. +0.5°C)	0.01°C
Thermocouple	J	-100°C ~ +1200°C	±(0.05% rdg. +0.5°C) ≤0°C ±(0.15%rdg.+0.5°C)	0.01°C
	E	-100°C ~ +1000°C	±(0.05% rdg. +0.5°C) ≤0°C ±(0.15%rdg.+0.5°C)	0.01°C
	T	-100°C ~ +400°C	±(0.05% rdg. +0.5°C) ≤-30°C ±(0.15%rdg.+0.5°C)	0.01°C
	N	-100°C ~ +1300°C	±(0.05% rdg. +0.7°C) ≤0°C ±(0.3%rdg.+0.7°C)	0.01°C
	W	+1500°C ~ +2315°C	±(0.05% rdg. +1.5°C)	0.01°C
	R	0°C ~ +1500°C	±(0.05% rdg. +1.0°C)	
	S	+800°C ~ +1768°C	±(0.05% rdg. +1.0°C)	0.01°C
	B	+400°C ~ +800°C	±(0.2% rdg. +2.0°C)	
		+800°C ~ +1768°C	±(0.05% rdg. +1.0°C)	0.01°C
Thermal Resistance	PT100	+400°C ~ +800°C	±(0.2% rdg. +2.0°C)	
	PT1000	+800°C ~ +1820°C	±(0.05% rdg. +1.0°C)	0.01°C
		+400°C ~ +800°C	±(0.2% rdg. +2.5°C)	
		-200°C ~ +660°C	±(0.05% rdg. +0.3°C)	0.01°C
		-200C ~ +300°C	±(0.05% rdg. +0.2°C)	0.01°C
Warm-up Time	Over 30 mins			
Thermocouple Measurment	Including the cold compensations accuracy			
Stardard Operation Status	Temperature 25±3°C, Humidity 55RH ±10%			

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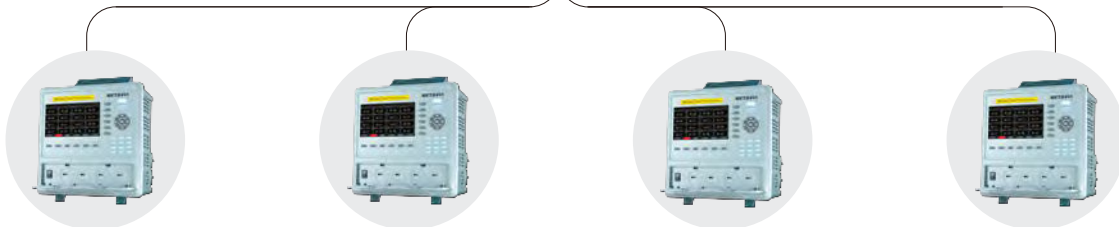

Monitor device

Ethernet switch

Under the same LAN connect serveral data loggers monitor

Connect IoT platform remote monitor

- Network connection or 4G/WiFi wireless module

IoT cloud platform

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