

**ponpe**

INSTRUMENTS



INSTRUMENTS

**PONPE**



UUUU



@ponpe



www.ponpe.com

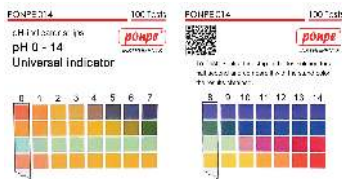




## PONPE 014FIX

### PH TEST STRIP

กระดาษลิตมัส

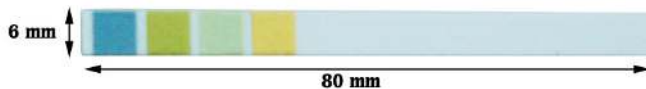


#### Specifications

pH Test Strip : 0-14 pH

Boxed: 100 pieces

Resolution: 0-1-2-3-4-5-6-7-8-9-10-11-12-13-14



## PONPE 610FIX

### PH TEST STRIP

กระดาษลิตมัส



#### Specifications

pH Test Strip : 6.0-10.0 pH

Boxed: 100 pieces

Resolution: 6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0



## PONPE SPEAR

### PH METER PH HACCP FOR MEAT,CHEESE

เครื่องวัดค่า PH สำหรับอาหารจำพวกเนื้อสัตว์ชีส



#### Specifications

Range: 0~14.00pH; Temp:0~100°C

Accuracy: ±0.01pH; Temp: ±0.2°C

Resolution: 0.01pH; 0.1°C

Temp. Compensation: 0~100°C

Calibration: pH 4.00, 7.00, 10.00 (1-3 points)

Battery: 9V

#### Features:

1. Specialized pre-amplified pH probe with stainless steel penetration blade
2. Easy to clean and keep clean
3. Microprocessor based with splash proof housing.



## PONPE 519PH

### PH/MV METER

เครื่องวัดพีเอชแบบตั้งโต๊ะ



PC Link



DC Jack



HOLD



MAX/MIN



Manual Logging



Auto Temp. Compensation



Metric/Imperial



### Specifications

PONPE 519PH	Range	Resolution	Accuracy
pH	0~14	0.01	±0.02
MV / ORP	-1999~+1999	0.1mv-199.9~+199.9 otherwise 1mv	±0.2mv-199.9~+199.9 otherwise ±2mv
Temperature °F	23~176°F	0.01	±0.9 °F
Temperature °C	-5~80°C	0.01	±0.5 °C

## PONPE 519PC

pH/Mv/ORP/TDS/Salt

กระดาศลิตมีส meter



### Specifications

pH Range: 0 to 14  
 mV/ORP Range: -1999 to +1999  
 Conductivity  $\mu$ S/cm Range: 0 to 199, 0 to 1999, 0 to 1999  
 Conductivity mS/cm Range: 0 to 19.99, 0 to 199.9  
 TDS ppm Range: 0 to 1999, 0 to 1999, 0 to 1999  
 TDS ppt Range: 0 to 19.99, 0 to 199.9  
 Salinity ppt Range: 0 to 11.38, 0 to 20  
 Temperature °C: -5 to 80°C



PC Link



DC Jack



HOLD



MAX/MIN



Manual Logging



Auto Temp. Compensation



Metric/Imperial



## PONPE 529PC

PH/TDS/EC/Temp. meter

เครื่องวัดพีเอช ทีดีเอส ความนำไฟฟ้า



### Specifications

Measuring range: pH:0.00-14.00pH;  
 TDS: 0-19990ppm;  
 EC: 0-19990 $\mu$ S/cm  
 Resolution: 0.01 pH; 1ppm; 1 $\mu$ S/cm; 0.1°C; 0.1°F  
 Accuracy: pH: ±0.01 pH; TDS/EC: ±2%; Temp: 0.5°C  
 Batteries: 3 \* 1.5V LR44 button cell (not included)  
 Temp.: 0.1-60.0°C; 32.0-140.0°F  
 Calibration: pH: three points automatic calibration (6.86 & 4.00 & 9.18pH)  
 TDS: 1413 $\mu$ S/cm ; EC: 1413 $\mu$ S/cm  
 Auto shut off: 5 Minute





## PONPE 596



Option (ซื้อเพิ่ม) s=ยู line alert

### Specifications

**EC Range:** 0.0-9999us/0.0-20.0Ms  
**TDS Range:** 0.0-9999ppm/0.0-10.0ppt  
**Resolution:** uS&ppm:0.1(0.0-99.9);1(100-9999); ms&ppt(0.1)  
**Accuracy:** ±2%  
**Temperature Compensation:** ATC(1-65°C)  
**Working Condition:** temp. -5°C~50°C, humidity≤85%

## EC/TDS CONTROLLER

เครื่องวัดพีเอชแบบตัวโต๊ะ



## CONDUCTIVITY TRANSMITTING CONTROLLER

เครื่องวัดและควบคุมค่าความนำไฟฟ้า



PONPE 595-H PONPE 595-L

Option (ซื้อเพิ่ม) s=ยู line alert

## PONPE 595

Model		PONPE 595-L	PONPE 595-L
Measurement range	Conductivity	(0.5~2,000) uS/cm	(0.5~20,000) mS/cm, (0.5~20,000) uS/cm
	TDS	0.5ppm~1,000ppm	250ppm~10,000ppm
	Temp	0~50°C (Temp.compensation component: NTC10K)	
Resolution	Conductivity	1µS /cm; 0.01mS/cm	
	TDS	0.01ppm	
	Temp	0.1°C	
Accuracy	Conductivity	1.5% (FS)	
	TDS	1.5% (FS)	
	Temp	±0.5°C	
Temp.compensation range (0~50) °C (with25°C as standard)			

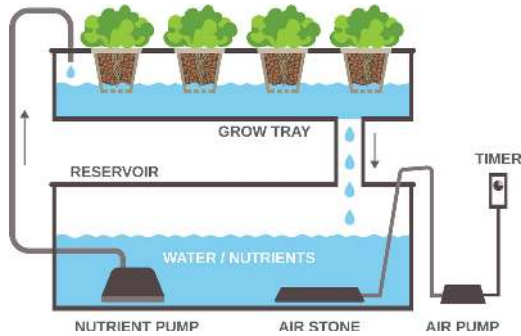




# Hydroponics Controller

## PONPE 593HD

Measurement range	Conductivity	0~9999uS/cm / 0~20.00mS/cm
	TDS	0~9999ppm(mg/L) / 0~10.00ppt(g/L)
Resolution	Conductivity	0.1uS (0.0~99.9uS/cm); 1uS (100~9999uS/cm); 0.01mS/cm
	TDS	0.1ppm (0.0~99.9ppm); 1ppm (100~9999ppm); 0.01ppt
Accuracy	Conductivity	±1.5% (FS)
	TDS	±1.5% (FS)
Temp.compensation range		1~60°C
Control contacts	Chanel	Single sensor (1/2" NPTF bushing)
	Relay	1 Point relay setting. Trigger relay when detects exceed value



### Optional



### Optional



## MODEL PONPE 594HD1 PONPE 594HD2



Measurement range	Conductivity	0.5~20.000 mS/cm (20,000 uS/cm)
	TDS	0.25ppm~10,000ppm
	Temp	0~50°C (Temp. compensation component : NTC10K)
Resolution	Conductivity	1uS /cm; 0.01mS/cm
	TDS	0.01ppm
	Temp	0.1°C
Accuracy	Conductivity	1.5% (FS)
	TDS	1.5% (FS)
	Temp	±0.5°C
Temp.compensation range		(0~50) °C (with25°C as standard)





# INTELLIGENT SENSOR METER

เครื่องวัดเซนเซอร์อัจฉริยะ



## DA8-RRB

### Specifications

- Display: LED Display
- Input: 0-75mv/4-20ma/0-10v
- Output: 4-20ma
- Alarm: Two relay alarm
- Power Supply: 90-265V AC/D
- Auxiliary Power: 24V DC
- Communication: RS232 or RS485 Modbus RTU
- Sampling rate:  $\leq 8$  times/second
- Consumption:  $< 3W$
- Accuracy: 0.3%F.S 2dgt
- Size: 48\*96\*80mm
- Hole Size: 45 \*91mm



# PH TRANSMITTING CONTROLLER

เครื่องวัดและควบคุม PH

## PONPE 590

### Specifications

Range	pH	0.00 ~ 14.00
	ORP	-1000mV ~ 1000mV
	Temp	0.0 ~ 50.0°C (NTC10K)
Resolution	pH	0.01
	ORP	1mV
	Temp	0.1°C
Accuracy	pH	0.1
	ORP	$\pm 5mV$ (Electronic component)
	Temp	$\pm 0.5^\circ C$
(4-20) mA	Characteristics	Isolated, fully adjustable, reversible
	Loop resistance	500Ω (Max), DC 24V
	Accuracy	$\pm 0.1mA$
Control contact	Electrical contacts	Double relay SPST-NO, return model
	Loop capacity	AC 220V / AC 110V 2A; DC 24V 2A
Working environment	Temperature	(0~50) °C
	Humidity	£85%RH (none condensation)



Option (ซื้อเพิ่ม)

ระบบการแจ้งเตือน  
ผ่าน Application Line





# pH Transmitting Controller

## PONPE 590BP

Measurement range	pH	0.00 ~ 14.00
	Temp	(0.0 ~ 50.0)°C (Temp. compensation component: NTC10K)
Resolution	pH	0.01
	Temp	0.1°C
Accuracy	pH	0.1
	Temp	±0.5°C
Buffer Solution		pH value: 10.00; 9.18; 7.00; 6.86; 4.01; 4.00
Control contacts	Electrical	Double relay SPST-NO, return model
	Loop capacity	AC 220V / AC 110V 2A (Max); DC 24V 2A (Max)



## PONPE 590BP



Measurement range	pH	0.00 ~ 14.00
	Temp	(0.0 ~ 50.0)°C (Temp. compensation component: NTC10K)
Resolution	pH	0.01
	Temp	0.1°C
Accuracy	pH	0.1
	Temp	±0.5°C
Buffer Solution		pH value: 10.00; 9.18; 7.00; 6.86; 4.01; 4.00
Control contacts	Electrical	Double relay SPST-NO, return model
	Loop capacity	AC 220V / AC 110V 2A (Max); DC 24V 2A (Max)

### Set Included

- 1 × PONPE 590BPH pH Transmitting Controller
- 1 × PH-1110A pH Electrode
- 1 × English User Manual





## CON595H

### CONDUCTIVITY CELL PROBE

โพรบเซลล์วัดค่าความนำไฟฟ้าในน้ำ



#### Specifications

Conductivity: Two-electrode conductivity cell

Conductivity cell constant: 10.0cm<sup>-1</sup>

Measurement range: 0.05 to 200mS/cm

Material: Main material: PC

Measurement part: Graphite

Installation part: ABS

Installation: NPT 1/2" thread

Medium temperature: 0 to 50°C

Max Pressure: 0.5MPa (max)

Cable Length: Standard length: 5m

Storage Temp.: Temp. -20 to 60°C

Humidity: ≤90%RH



## CON595L

### CONDUCTIVITY SENSOR

โพรบเซลล์วัดค่าความนำไฟฟ้าในน้ำ



#### Specifications

Electrode type: two combination electrode

Electrode material: 316L stainless steel

Component for temperature compensation: NTC 10KΩ

Mechanical connection: 1/2" NPT (ABS swift installation joint)

Sustained pressure: 0.5 MPa

Medium temperature: 0 - 50°C

Mode of drawing wire: draw the wire out directly

Length of the wire cable: ex work standard 5 m , or according to the user's order

electrode constant: 1.0 , 0.1 cm







# THERMOCOUPLE PROBE

โพรบวัดอุณหภูมิ, เซนเซอร์วัดอุณหภูมิ

## 590-ORP-10M



### Specifications

Range: -1000mV ~ 1000mV

Resolution: 1mV

Accuracy:  $\pm 5$ mV (Electronic component)Loop resistance: 500 $\Omega$  (Max), DC 24V

Outline dimension: 96\*96\*105mm (H\*W\*D)

Hole dimension: 91\*91mm (H\*W)

## 590-P-10M



### Specifications

Range: 0 to 14 pH

Resolution: 0.01

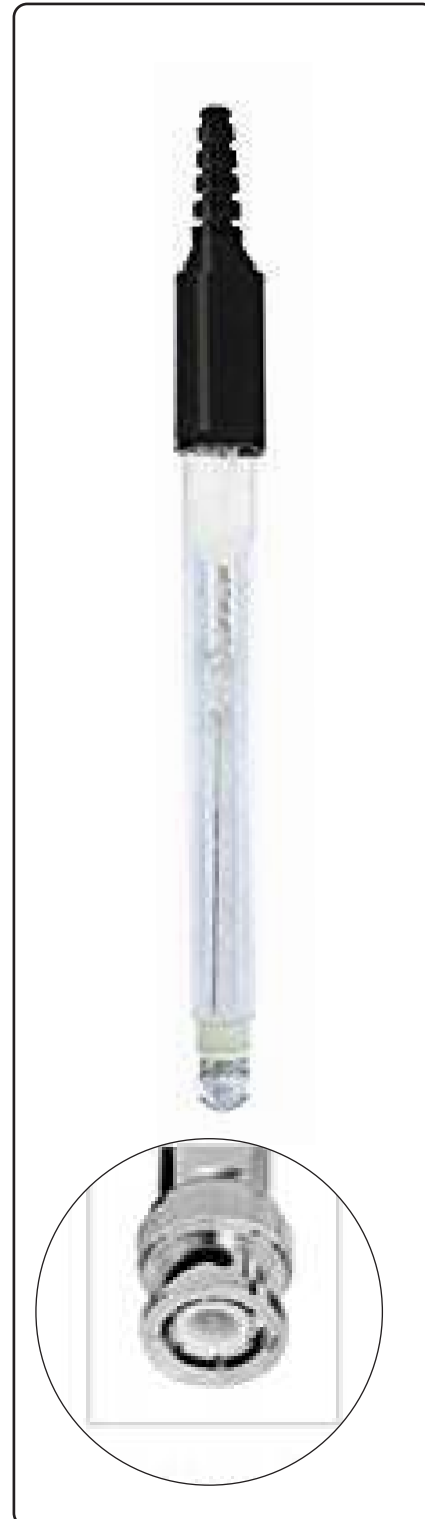
Accuracy: 0.1

Loop resistance: 500 $\Omega$  (Max), DC 24V

Outline dimension: 96\*96\*105mm (H\*W\*D)

Hole dimension: 91\*91mm (H\*W)

## PONPE 512PH



### Specifications

Range: 0 to 14 pH

Temperature range: 0 to 100°C

Reference type: Ag/AgCl

Junction type: Annular ceramic

Body type: Glass

Dimensions: 120(L)\*12(Dia.)mm

## PONPE 421PR



### Specifications

Range: -50~500 °C

Accuracy:  $\pm 1.5$ °C

Probe length: 20 cm

Diameter 4 mm.

Miniature K-Type Connector

Response time: 10 seconds

## FST200-202



### Specifications

Measuring range: 0~360°

Measurement starts at:  $\leq 0.8$  m/s

Resolution: 22.5°

Measurement accuracy:  $\pm 3$ °Electrical Resistance: 250  $\Omega$ 

Operation voltage: 12~36 VDC



## PONPE 509TU

### PORTABLE TURBIDITY METER

เครื่องวัดความขุ่นแบบพกพา



#### Specifications

Measuring range: 1.00 -225.0mm

Data storage: 500

Probe selection:X

Operation frequency: 5MHz

 Measurement error:  $\pm(0.5\%H+0.05)$ mm

 Lower limit of pipe measurement:  $\varnothing 20 \times 3$ mm (steel)

Adjustment range of sound speed: 1000-9999m/s

Temperature range of operation: 0 -40°C

## JEDTO 2236B

### TACHOMETER LASER 2 IN 1

เครื่องวัดความเร็วรอบ



#### Specifications

Range:Photo Tach: 2.5~99,999RPM

Contact Tach: 0.5~19,999RPM

Surface Speed: 0.05~1,999.9(m/min)

Resolution: Photo Tach: 2.5~999.99RPM,

1,000~9,999.9RPM

Contact Tach: 0.5~999.99RPM, 1,000~9,999.9RPM

over 10,000RPM

Surface Speed: 0.05~99.99m/min, over 100m/min

## PONPE 013SW

### STOPWATCH

นาฬิกาจับเวลา

#### Specifications

Material: plastic

Powered by: battery button (included)

Dimensions (L x W x H): 8.0x6.4x2.0 cm

Color: Black

Show hourly minutes, second AM / PM indicator

month info, and day of the week

You can select 12 or 24 hour users

This chronograph digital sports watch



## PONPE 529BR

### REFRACTOMETER

เครื่องวัดความหวานแบบดิจิทัล



#### Specifications

Range: 0-55% Brix

Temperature compensation: 10 °C ~ 40 °C

Ambient temperature: 10 °C ~ 40 °C

Fully charged: about 20,000 times

Resolution: Brix 0.1%

 Accuracy:  $\pm 0.2\%$  Brix /  $\pm 1$  °C

Battery: 2x1.2V AA 2100mAh NiMH battery

Product size: 300g / 120x55x30mm



## PONPE 520BR

### BRIX REFRACTOMETER

เครื่องวัดความหวานแบบกลิ้งส่ว



#### Specifications

Range : Brix 0-32%

Min.Div.: 0.2%Brix

Accuracy:  $\pm 0.2\%$ Brix

## PONPE 530BS

### BRIX & SALINITY REFRACTOMETER

กลิ้งส่วความหวาน และความเค็ม



#### Specifications

Range : Brix 0-32%

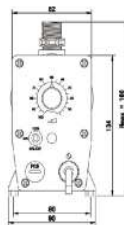
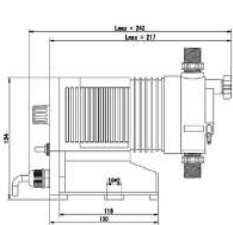
Salinity: 0~28%salinity

Min.Div.: 0.2%Brix

## PP0806A Series

### DOSING PUMP

ปั๊มจ่ายสารละลาย



#### Specifications

Model	PP0806AA11	PP0806AB11	PP0806AD11
Pressure	8	8	8
Flow rate	6	6	6
Speed (strokes / Min)	180	180	180
Connection Size (inch)	3/8"*1/4"	3/8"*1/4"	3/8"*1/4"
Material	PP	PP	PP
Control	Basic Control Model	Basic Control Model + Remote start-stop	100%+50%+4-20mA signal



# PONPE 190



**Resolution**  
220\*160

**Specifications**

- Display screen: 3.2" full-color screen
- Infrared image resolution: 220\*160
- Visible image resolution: 0.3 million pixel
- Thermal sensitivity: 0.07°
- Temp. measurement range: -20~300
- precision: ±2.5° or ±2.5%
- Wavelength coverage: 8-14um
- Field angle/shortest focus length: 27°\*35°/0.5m
- Emissivity: Adjustable from 0.1 to 10.0
- Work temperature: 0° to 50°
- Storage temperature: -40° to 80°
- Humidity: <85RH

# PONPE 191

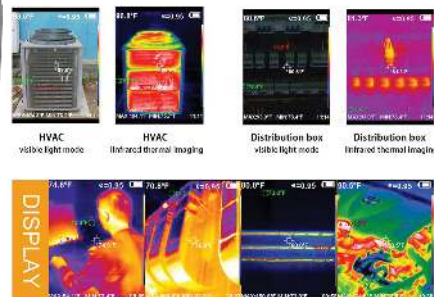
## Thermal Imaging Camera

กล้องถ่ายภาพความร้อน



**Specifications**

- Display:3.2 inch color display
- Resolution: 320\*240
- Total pixel:76800
- FOV/Shortest focal length:34° \* 26° /2m
- Thermal sensitivity :0.07°C
- Temperature range:-20°C-300°C
- FOV/Shortest focal length:34° \* 26° /2m
- Measuring accuracy: ±2°C
- Wavelength range:8-14um
- Operating temperature :5°C-40°C
- Storage temperature:-20°C-50°C
- Humidity:<90%RH



**Resolution**  
320\*240

# PONPE 319EG

## GROUND RESISTANCE TESTER

เครื่องวัดความต้านทานดิน



**Specifications**

- Earth Ground Resistance: 0/20/200/2000Ω ±(2%+3)
- Earth Voltage: 0~30V ±(3%+5)
- Resolution: 0.01Ω
- Data Hold: yes
- Working LED Indicator: yes
- Function Symbol Display: yes
- Low Battery Warning: yes
- Power: AA1.5Vx6(UM3)
- Product Size: 150 x 100 x 70 mm
- Product Net Weight: approx. 680g

# PONPE S200

## ENDOSCOPE

กล้องส่องท่



**Specifications**

Model	Lens Diameter	Tube Length	Camera Resolution	LED	Accessories
PONPE S200-8.2MM-1M		1 Meters			
PONPE S200-8.2MM-2M		2 Meters			
PONPE S200-8.2MM-3M	8.2 mm	3 Meters	0.3 Megapixel	6 Pcs	Yes
PONPE S200-8.2MM-5M		5 Meters			
PONPE S200-5.5MM-1M		1 Meters			
PONPE S200-5.5MM-3M	5.5 mm	3 Meters	0.45 Megapixel	4 Pcs	No
PONPE S200-5.5MM-5M		5 Meters			
PONPE S200-3.9MM-1M		1 Meters			
PONPE S200-3.9MM-3M	3.9 mm	3 Meters	0.1 Megapixel	2 Pcs	No



## LDM-101

### LASER DISTANCE METER

เครื่องวัดระยะ



#### Specifications

Measuring Range : 0.1 -100 m  
Accuracy : Typically :  $\pm 1.5$  mm( $\pm 0.06$  in)  
Operating Temp. : 0°C to 40°C(32°F to 104°F)  
Storage temp. : -10°C to 60°C(14°F to 140°F)  
Auto. laser switch-off: after 0.5 min  
Auto instrument switch-off: after 3 min

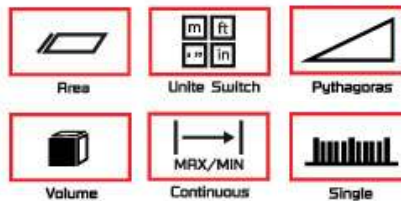
#### Specifications

Measuring Range: 0.05-100m  
Measuring Accuracy:  $\pm 2.0$ mm  
Operating Temperature: 0~+40°C  
Storage Temperature: -20~+65°C

#### Ordering

PONPE 210LD: 0.05-100m PONPE 214LD: 0.2-40m

#### 6 MODE SELECTION



## PONPE 210LD



## PONPE W29

### ANEMOMETER เครื่องวัดความเร็วลม



#### Specifications

Measuring range: 0-60m; 0-30m  
Accuracy: 3%  
Resolution: 0.1m/s  
Temperature: -20~80°C  
Air velocity: 0.4-0.8 m/s  
Power supply: 220V 50Hz  
Voltage: DC5-24Vperhaps V DC12-24 (Options)  
Dimensions: 32 x16x 5CM

## PONPE WD1

### ANEMOMETER บ่ายแสดงความเร็วลมและทิศทางลม



#### Specifications

Air velocity: 1.5 - 79m/s  
Accuracy:  $\pm 1.5$   
Resolution: 0.1m/s  
Power supply: 220V, 50Hz  
Wind direction: 0°-360°  
Wind direction resolution: 1°  
LED 7-Segment 1.5 ''  
Data: 17,280 /Day

## ANEMOMETER เครื่องวัดความเร็วลม



#### Specifications

##### General technical data

Automatic shutdown: About 15 minutes  
Atmospheric pressure: 500mb-2Bar  
Operating temperature: 0-50°C  
Storage temperature: -10-60 °C  
Storage humidity: 0-75%RH



## PONPE 219BT

#### Wind speed measurement

Wind speed unit	Range
m/s	1~25.0
km/h	3.6~90.0
ft/min	196~4921
Knots	1.9~48.5
MPH	2.2~55.9

#### Wind temperature measurement

Unit	Range
°C	0~50°C



# PONPE 449SD

\*พร้อมไฟพรบวิด

## 4 CHANNEL K THERMOCOUPLE & THERMISTOR

เครื่องวัดและบันทึกอุณหภูมิ 4 ช่อง

### Features

- Super big LCD portable/wallmount SD card logger
- Measure temperature via K Type thermocouple
- 4 Channel K Type thermocouple to use at once
- Unlimited manual memories in SD card
- Unlimited autologging memories in SD card
- HOLD function freezes current readings
- Checking MAX/MIN value from power on
- Beeper and LED alarm are both available
- One button press to display T1-T2
- Programmable temperature HIGH/LOW alarm limit
- Blue backlight function works in dark area

### Specifications

K Temp. Range: -200 to 1370°C, -328 to 2498°F
K Temp. Resolution: 0.1°C, 0.1°F
K Temp. Accuracy (under 18 to 28°C ambient temp.): ±(0.3% rdg +1°C)
Sampling Rate: Programmable from 1 second up
LCD Size (H*W): 47*104mm
Operating Temp.: 0 to 50°C
Operating RH%: Humidity < 80%RH
Storage Temp.: -20 to 50°C
Storage RH%: Humidity < 90%RH
Dimension (L*W*T): 152*100*39mm



# PONPE 220AN

## DIGITAL ANEMOMETER

เครื่องวัดความเร็วลม



### Specifications

Range of Air velocity: 0 - 45 m/s, 0 - 8800 Ft/Min, 0 - 88 Knots, 0 - 140 Km/Hr, 0 - 88 Mph
Accuracy of Air velocity: ±3%
Range of Air temperature: 0-45 °C (32-113 °F)
Accuracy of Air temperature: ±2 C (3.6 °F)
Resolution of Air velocity: 0.1m/s, 0.2°C
Battery: 1x9 V Battery (not included)
Operating temperature: -10-45 °C (14-113 °F)
Operating humidity: Less than 90%RH
Store temperature: -40 ~+60 (-40 °F-140 °F)
Dimension: Meter: 148*76*37mm
Vane: 172*65*20mm



# PONPE 229AN

## INTELLIGENT SENSOR METER

เครื่องวัดความเร็วลม



### Specifications

Display: LED Display
Input: 0-75mv / 4-20ma / 0-10v
Output: 4-20ma
Alarm: Two relay alarm
Power Supply: 90-265V AC/D
Auxiliary Power: 24V DC
Communication: RS232 or RS485 Modbus RTU
Sampling rate: ≤ 8 times/second
Consumption: < 3W
Accuracy: 0.3%F.S 2dgt



## PONPE W29-1

**ANEMOMETER** เครื่องวัดความเร็วลม



### Specifications

Range: 0.5~50m/s  
 Starting wind speed: <0.5m/s  
 Limit wind velocity: >70m/s  
 Accuracy:  $\pm 0.5\text{m/s}$  (<5m/s),  $\pm 3\%FS$  (>5m/s)  
 Resolution: 0.001  
 Operation humidity: 0%~95%RH  
 Operating temperature: -20C~85°C  
 Alarm: Relay: NO AC250V/3A or DCV/3A

## FST200-201

**WIND SPEED SENSOR** เซ็นเซอร์วัดความเร็วลม แบบถ้วย



### Specifications

Output : Pulse signal (HZ) 0-5VDC 4-20mA  
 Working Voltage : 5VDC 24VDC 12~36VDC(common 24VDC)  
 Testing range : 0.5m/s~50m/s  
 Start wind speed :  $\leq 0.5\text{m/s}$   
 Working Environment Temperature : -20°C~+85°C Humidity $\leq 95\%RH$   
 Accuracy :  $\pm 0.5\text{m/s}$  (<5m/s),  $\pm 3\%FS$  ( $\geq 5\text{m/s}$ )  
 Limit wind speed : Max: 70m/s 30min  
 Electrical connection : M12

## PONPE 480

This infrared thermometer is used for measuring the temperature of the object's surface, which is applicable for various hot, hazardous or hard-to-reach objects without contact safely and quickly.

## INFRARED THERMOMETER

เครื่องวัดอุณหภูมิแบบอินฟราเรด



### Specifications

Temperature range : -50 ~ 380°C (-58~716°F)  
 Accuracy :  $\pm 1.5\%$  or  $\pm 1.5^\circ\text{C}$   
 Repeatability :  $\pm 1\%$  or  $\pm 1^\circ\text{C}$   
 Distance Spot Ratio : 12:1  
 Emissivity : 0.95 preset  
 Resolution : 0.1°C/°F  
 Response Time : 500ms  
 Wavelength : 8-14 $\mu\text{m}$   
 Data Hold function  
 Backlight ON/OFF selection  
 Auto Power Shut Off  
 Power supply : 2\*1.5V AAA battery  
 Weight : 115.1g  
 Dimension : 144.5\*38\*93mm





# Infrared Thermometer

เครื่องวัดอุณหภูมิ  
แบบอินฟราเรด



**Model**

**Range**

PONPE 430IR	-50 ~ 380°C or -58~716°F
PONPE 450IR	-50 ~ 550°C or -58~1022°F
PONPE 470IR	-50 ~ 750°C (-58~1382°F)
PONPE 490IR	-50 ~ 950°C (-58~1742°F)





## PONPE 910UT



## ULTRASONIC THICKNESS GAUGE

เครื่องวัดความหนาเหล็ก

### Specifications

Measuring range: 1.00 -225.0mm

Data storage: 500

Probe selection:X

Operation frequency: 5MHz

Measurement error:  $\pm(0.5\%H+0.05)$ mm

Lower limit of pipe measurement:  $\varnothing 20 \times 3$ mm (steel)

Adjustment range of sound speed: 1000-9999m/s

Temperature range of operation: 0 -40°C



## COATING THICKNESS GAUGE

เครื่องวัดความหนาผิวเคลือบ



### Specifications

Measurement range: 0~1500um/0~59mil/0~1.5mm

Resolution: ( 0.1 $\mu$ m(<100 $\mu$ m), 1 $\mu$ m( $\geq$ 100 $\mu$ m)  
/ 0.1mil/0.001mm

Measurement error:  $\leq 150\mu$ m  $\pm 5\mu$ m

>150 $\mu$ m  $\pm(3\%H+1\mu$ m)

Battery: 3x1.2V NiMH battery or 5V1A power adapter

Size: 70.30\*38.6\*149.59mm

Weight: 136.9(including battery)

## PONPE 946FN





# COATING THICKNESS GAUGE

เครื่องวัดความหนาผิวเคลือบ

## PONPE 916FN



### Specifications

Range: 0-1500 $\mu$ m / 0-60mil  
Resolution: 0.1 $\mu$ m/mil  
Accuracy:  $\pm(1+2\% \mu$ m)  
Minimum test surface:  $\phi$ 10mm  
Minimum thickness of base material: 0.4mm  
Temperature: -10 $^{\circ}$ C-50 $^{\circ}$ C  
Humidity: 10%RH-85RH

## PONPE 926FN



### Specifications

Operating : magnetic induction/eddy current (F/NF)  
Range: 0-1250 $\mu$ m/0-50mil  
Resolution: 0.1 $\mu$ m (0-999 $\mu$ m), 1 $\mu$ m (over 100 $\mu$ m)  
Accuracy:  $\pm 1-3\%$ n or  $\pm 2.5\mu$ m or 0.1mil  
Temperature: 0-50 $^{\circ}$ C (32 $^{\circ}$ F-104 $^{\circ}$ F)  
Humidity : <80%  
With 2 separate probe(s)

## PONPE 936FN



### Specifications

Range: 0-1500 $\mu$ m / 0-60mil  
Resolution: 0.1 $\mu$ m/mil  
Accuracy:  $\pm(1+2\% \mu$ m)  
Minimum test surface:  $\phi$ 10mm  
Minimum thickness of base material: 0.4mm  
Temperature: -10 $^{\circ}$ C-50 $^{\circ}$ C  
Humidity: 10%RH-85RH

## PONPE 411CFN



### Specifications

Measurement of steel, galvanized steel and aluminum  
Large measuring range from 0  $\mu$ m to 1990  $\mu$ m  
Measuring resolution: 10  $\mu$ m  
Very comfortable probe on the cable (80 cm)  
Built-in LED flashlight  
2 x 1.5 V Alkaline Battery  
Operating temp. range: -20 $^{\circ}$ C +40 $^{\circ}$ C (-4 $^{\circ}$ F - 104 $^{\circ}$ F)

## PONPE 411CFE



### Specifications

Big, Easy to Read, backlit LCD  
Gauge blocks in set (easy calibration)  
Large measuring range from 0  $\mu$ m to 1990  $\mu$ m  
Measuring resolution: 10  $\mu$ m  
Very comfortable probe on the cable (80 cm)  
Built-in LED flashlight  
Operating temp. range: -20 $^{\circ}$ C +40 $^{\circ}$ C (-4 $^{\circ}$ F - 104 $^{\circ}$ F)

## PONPE 411FE



### Specifications

Large measuring range from 0  $\mu$ m to 1990  $\mu$ m  
Measuring resolution: 10  $\mu$ m  
Built-in LED flashlight  
2 x 1.5 V Alkaline Battery  
Two modes: HOLD / CONTINUOUS MODE  
Big, Easy to Read, backlit LCD  
Operating temp. range: -20 $^{\circ}$ C +40 $^{\circ}$ C (-4 $^{\circ}$ F - 104 $^{\circ}$ F)



# PONPE 423

## THERMOMETER

เครื่องวัดอุณหภูมิ



6s



300°C

°C/°F

### Specifications

Temperature measuring scope:-50~300°C

Resolution : 0.1°C

Power Source : CR2032 Button Battery\*1

Operating Temperature : 0~40°C(32~104°F)

Environmental humidity : 10~90%RH

Dimension:242.5\*33mm

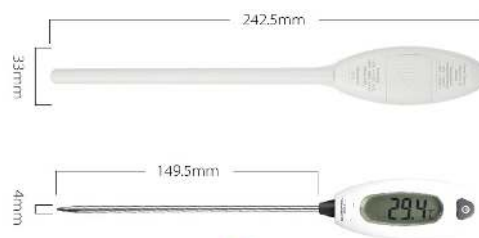
Probe Dimension:149.5\*6mm

Display Dimension:44\*18mm

Maximum/minimum measuring function

LCD display

Automatic shutoff



# PONPE 420

## THERMOMETER

เครื่องวัดอุณหภูมิ



### Specifications

J-type: -210°C to 1200°C

K-type: -200°C to 1372°C

T-type: -250°C to 400°C

E-type: -150°C to 1000°C

N-type: -200°C to 1300°C

R-and S-type: 0°C to 1767°C

Accuracy: ±0.1%+0.6°C

Operating Temperature: 0°C to 40°C

Storage Temperature: - 10°C to 50°C

Power supply: 3 x 1.5V AAA

Item Size: 14 x 7 x 3cm

Item Weight: 125g / 4.4oz



## PONPE 408F

### CO2 METER

เครื่องวัดก๊าซคาร์บอนไดออกไซด์



#### Specifications

CO2 display range: 350ppm-3000ppm  
 Temperature display range: 0-50°C  
 Operating temperature: -10~ +50°C  
 Operating humidity: 5%RH-90%RH  
 Storage temperature: -10~+60°C  
 Storage humidity: ≤60%RH  
 Fixing hole distance: 60mm  
 Control power: ≤200W

## PONPE 012AL

### ALCOHOL TESTER

เครื่องเป่าแอลกอฮอล์



#### Specifications

Detection Range: 0.00 - 0.20BAC% ;  
 0.00 - 2.00 g/L; 0.00 - 2.00BAC‰ ;  
 0.00 - 1.00 mg/L; 0.00 - 200 mg/100mL  
 Alarming Threshold: 0.05% BAC; 0.50 g/L;  
 0.50‰ BAC; 50 mg/100mL  
 Test Accuracy: ±10% F.S  
 Environmental temperature: -10° to 50°  
 Relative Humidity ≤95%  
 Working Current: ≤120mA

## PONPE 409F

### CO2 CONTROLLER

เครื่องวัดก๊าซคาร์บอนไดออกไซด์



#### Specifications

Project	Project Unit	Parameter value
Power supply	VAC	200~240
CO2 adjustment range	PPM	350~1000
CO2 control range	PPM	350~1500
CO2 measurement maximum	PPM	1999
Temperature display range	°C	0~50
Humidity display range	%RH	5~99
Control power	W	≤200
Rated Power	W	< 2
Dimensions	MM	88×88×50
Wirings	MM2	2 x 1.5 or 1 x 2.5
Install hole spacing	MM	56~58
Protection Class	IP	30
Flame retardant rating	Level	V0



## PONPE 419BT

### TEMPERATURE & HUMIDITY

เครื่องวัดอุณหภูมิ ความชื้น

#### Specifications

Humidity measuring rang: 0 to 100 %RH  
 Accuracy 20 to 80 %RH: ±3%RH at +25 °C;  
 ±2.5 %RH at other ranges  
 Temp. range: -20 to +80 °C (-4~176 °F)  
 Accuracy: ±0.8°C / ±0.9°F at +25 °C; ±0.8°C  
 ±1.5°F at other ranges  
 Resolution: 0.01%RH, 0.01°C/0.01 °F  
 Response time: 10s



# PONPE 421TK

**ponpe**  
INSTRUMENTS



## DIGITAL THERMOMETER

เครื่องวัดอุณหภูมิ

### Technical Parameters

Temperature range: -200 ~ 1370 °C (-328 ~ 2498 °F)

Accuracy:  $\pm(1\%+1^{\circ}\text{C})$ ;  $\pm(1\%+2^{\circ}\text{F})$

Resolution: 0.1 °C & 0.1 °F

Type of temperature measuring: K

Sampling rate: 2.5 times per second

Operating Temperature: 0 ~ 40 °C (32 ~ 104 °F)

Operating Humidity: 0 ~ 70 % (R.H.)

Input protection: 60V DC or 24V AC maximum input voltage on any combination input pins

Input connector: accept standard miniature thermocouple connectors

Battery: 4 x 1.5V AAA battery

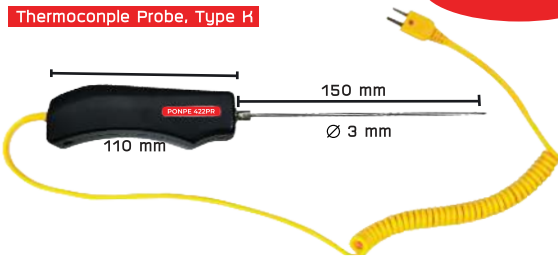
Weight: 205g (include battery)

Dimension: 73x146x33mm

## PONPE 422PR

Thermoconple Probe, Type K

ปากทั่วไป



### คุณสมบัติ

ช่วงการวัดอุณหภูมิ สูงสุด ~500°C

ความแม่นยำ  $\pm 1.5^{\circ}\text{C}$

ความยาวไฟรบ 150 มม  $\varnothing 3$  มม ถ้ามจับ 110 มม

ไฟรบทำจากวัสดุสเตนเลส

สายไฟรบแบบขดสปริงยึดได้สูงสุด 2 เมตร

หัวต่อแบบชนิด K ใช้งานกับ thermometer ได้ทั่วไป

ชนิดหัววัด: ปลายแหลม

## PONPE 423PR1

Thermoconple Probe, Type K

ปากพื้นผิว



### คุณสมบัติ

ช่วงการวัดอุณหภูมิ สูงสุด ~500°C

ความแม่นยำ  $\pm 1.5^{\circ}\text{C}$

ความยาวไฟรบ 130 มม  $\varnothing 15$  มม หัววัด 15 มม

ไฟรบทำจากวัสดุสเตนเลส

สายไฟรบแบบขดสปริงยึดได้สูงสุด 2 เมตร

หัวต่อแบบชนิด K ใช้งานกับ thermometer ได้ทั่วไป

## PONPE 423PR2

Thermoconple Probe, Type K

ปากพื้นผิว



### คุณสมบัติ

ช่วงการวัดอุณหภูมิ สูงสุด ~500°C

ความแม่นยำ  $\pm 1.5^{\circ}\text{C}$

ความยาวไฟรบ 130 มม  $\varnothing 6$  มม ถ้ามจับ 130 มม หัววัด 15 มม

ไฟรบทำจากวัสดุสเตนเลส

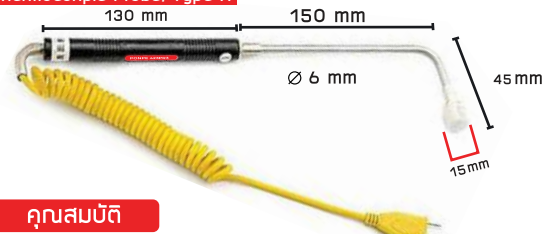
สายไฟรบแบบขดสปริงยึดได้สูงสุด 2 เมตร

หัวต่อแบบชนิด K ใช้งานกับ thermometer ได้ทั่วไป

## PONPE 423PR3

Thermoconple Probe, Type K

ปากพื้นผิว



### คุณสมบัติ

ช่วงการวัดอุณหภูมิ สูงสุด ~500°C

ความแม่นยำ  $\pm 1.5^{\circ}\text{C}$

ความยาวไฟรบ 150 มม  $\varnothing 6$  มม ถ้ามจับ 130 มม หัววัด 15 มม

ไฟรบทำจากวัสดุสเตนเลส

สายไฟรบแบบขดสปริงยึดได้สูงสุด 2 เมตร

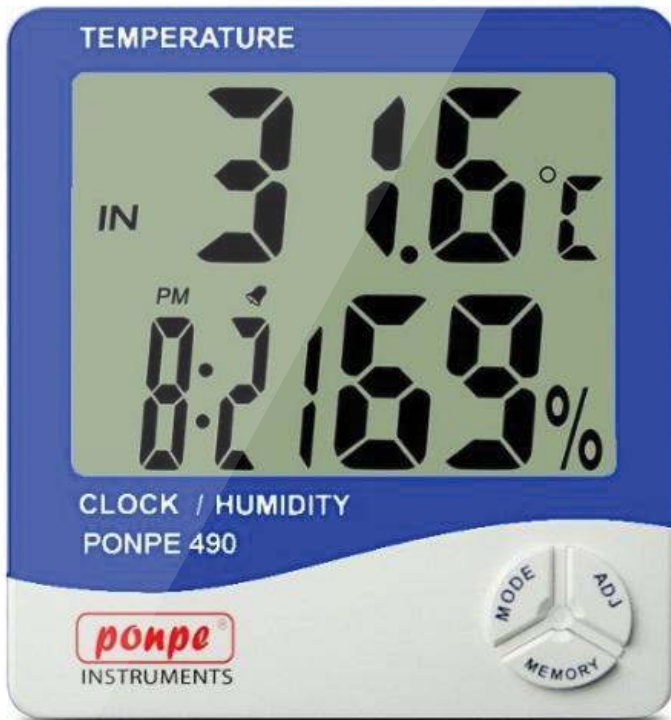
หัวต่อแบบชนิด K ใช้งานกับ thermometer ได้ทั่วไป



## PONPE 490

### THERMO-HYGROMETER

เครื่องวัดอุณหภูมิ ความชื้น



#### Specifications

Temperature range: -10 ~ +50°C (-14 ~ 122 °F)

Humidity: 20% ~ 99%RH

Resolution: 0.1°C (0.1°F)

Resolution humidity : 1%RH

Accuracy : ±1C (1.8F)

Storage conditions: -20~60°C, 20~80%RH

Power-supply: 1.5V (AAA size) x1

Product Dimension: 100\*108\*20 mm

Weight: 160g

## PONPE 301SM

### SOIL MOISTURE CONTROLLER

เครื่องวัดและควบคุมความชื้นดิน ทราย



#### Features

- The sensor shell is made of aluminum alloy, compressive ability, to meet the requirements of deep soil.
- The sensor probe and the shell with a special spiral connection, sealing, and waterproof, to ensure that electronic components from damage.
- High precision, low drift, stable performance.
- Fast response, long service life.
- The working temperature range, with a strong load capacity.
- Anti-interference ability, long transmission distance.
- A variety of signal output options.

#### Specifications

Range: 0 to 100%

Accuracy: ± 5%

Resolution: 0.1%

Response time: The response enters the steady state process within 1 second

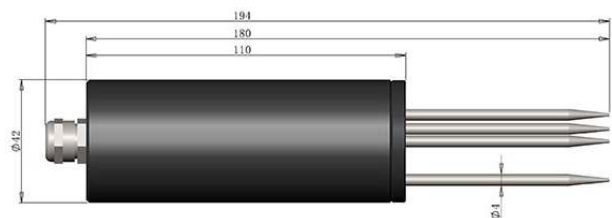
Working environment: Temp.: -20 ~ 60°C; Relative humidity: ≤ 100% RH

Storage environment: Temperature: -20 ~ 60°C; Relative humidity: ≤ 85% RH

Alarm: Relay: NO AC250V/3A or DCV/3A

Power supply: 220V AC

Dimensions: Meter: 13\*23\*12.5 cm. (H\*W\*D)





## PONPE 311-O2

### SINGLE GAS DETECTOR

เครื่องวัดแก๊ส ออกซิเจน



#### Specifications

Range : 0-30%vol

L-alarm : 19.5%vol

H-alarm : 23.5%vol



## PONPE 310-O2

### SINGLE GAS DETECTOR

เครื่องวัดแก๊ส ออกซิเจน



#### Specifications

Gas Detected : Oxygen

Range : (0.030.0)

Working Temperature : - 25°C ~ +55°C

Sensor lifetime : Infrared: ≥5 years

Electrochemical: ≥2 years

Approval : Ex, MA, CMC, CE

## PONPE 321-1

### Multi-gas detector เครื่องวัดแก๊ส



Optional Accessories

ชื่อเพิ่ม

PUMP ดูดอากาศ



#### Specifications

Operating & Storage Environment: Temperature: -20~55°C (-4~122°F)

Humidity: 5%-95%RH

Pressure: 95~110kPa

Detecting Range: CO: 0~1000ppm

H2S: 0~100 PPM

O2: 0~30%vol

Combustible Explosive Gas (Ex / LEL / CH4): 0~100%LEL

Resolution: 0.1%VOL (O2), 1ppm (CO), 0.1ppm (H2S), 1%LEL (EX)

Accuracy: 3% F.S

Response time: 10s

Repeatability: 1%

Zero drift: 1%



## PONPE 320-1

### PORTABLE MULTI GAS DETECTOR เครื่องวัดแก๊ส



#### Specifications

LELCH4: (0-100)%LEL (0.00-5.00)%vol,0.01%  
Carbon Monoxide Ranges: (0-1000) ppm  
Oxygen Ranges: (0.00-30.0)%VOL  
Hydrogen Sulfide Ranges : (0-100) ppm  
Working Temperature : -25°C ~ +55°C  
Display : Color LCD / OLCD  
Approval : Ex, MA, CMC, CE

## PONPE O2-100

### OXYGEN ANALYZER เครื่องวัดออกซิเจนในอากาศ



#### Specifications

Gas detected: Oxygen (O2)  
Measuring range: (0-100)%vol  
Resolution ratio: 0.1%vol, 1%vol  
Sensor: CITY Electrochemical Sensor  
Sensor lifetime: ≥2 year  
Response time: ≤35s(T90)  
Working current: < 1mA ( without backlight)  
Alarms: Audible--buzzer with ≥75dB audible  
Visible--flashing red LED, ≥20m visible

## PONPE 330-LEL

### FIXED GAS TRANSMITTER & CONTROLLER เครื่องวัดและควบคุมแก๊ส



#### Specifications

Ranges: 0-100%LEL  
Resolution : 1%LEL  
Response Time : <30S  
Low Alarm : 20%LEL  
High Alarm : 50%LEL  
Combustible gas: - 40°C ~ + 70 °C

## PONPE 322-1

### Specifications

image resolution : 220 × 160

Precision measure: ± 5 ° or ± 5%

Corner / Short Focal Length : 27 ° × 35 ° / 0.5 meters

Focus mode : stable

Storage temperature : -40 °C to 80 °C

Working temperature : 0 °C to 50 °C

Technical Data	Range	Low alarm	High alarm	Resolution
EX	0~100%LEL	20%LEL	50%LEL	1%LEL
H2S	0~100ppm	10ppm	35ppm	1ppm
CO	0~1000ppm	50ppm	150ppm	1ppm
O2	0~30%vol	19.5%vol	23.5%vol	0.1%vol

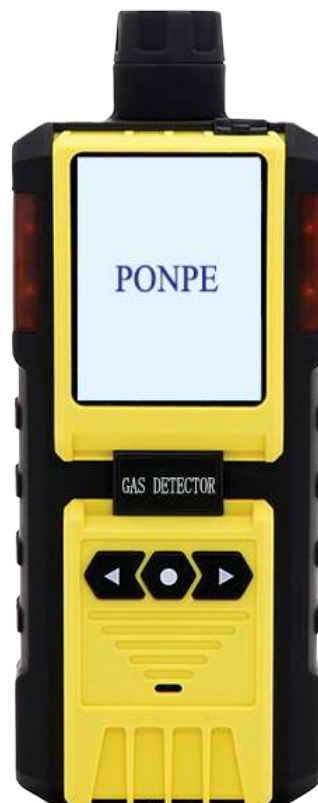
Other gases needed, please contact



## Multi-gas detector

เครื่องวัดแก๊ส

มี PUMP ในตัว







## PONPE 320-P

### GAS SAMPLING PUMP

ปั๊มสำหรับเก็บตัวอย่างแก๊ส



Gas Sampling Pump

#### Specifications

4000ml/min, super large power suction ability  
 Universal for any portable gas detectors  
 4 LED battery indicators  
 1.2m rubber hose  
 Detect target gas as far as 30 meters  
 Optional: Dust proof filter

## PONPE 321-P

ปั๊มสำหรับเก็บตัวอย่างแก๊ส



#### Specifications

Rated Voltage: DC3.0V  
 Voltage range: DC2.0V~DC3.2V  
 Rated current: ≤400mA  
 Max pressure: ≥300mmHg  
 Resume voltage: DC2.0V  
 Working flow: ≥0.6LPM

## PONPE 300GL

### GAS LEAK DETECTOR

เครื่องวัดแก๊ส



#### Specifications

**Battery:** 2 x AA (alkaline)

**Auto power off:** About 5 minutes

**Lifespan:** About 200 times (2 minutes time)

**Slight Alarm:** Approximately 500ppm

**Strong Alarm:** Approx 2000ppm

**Ambient temperature:** 0 °C ~ 50 °C

**Relative humidity** <90% RH

**Response time:** Instant



## PONPE 210VB

### VIBRATION METER

เครื่องวัดแรงสั่นสะเทือน

#### Features

1. Simple to use, the structure is compact, portable for carrying along with measurement.
2. Visually display measurement value and state.
3. Acceleration, velocity and displacement measurement.
4. Different vibration frequency selection.
5. High sensitivity probe for accurate measurement Provides long and short probe head, each one is suitable for different situation measurement.
6. Equipped with AC signal output interface.
7. Low power indication.
8. Auto power-off.
9. LCD backlight.

#### Specifications

Range of acceleration: 0.1~199.9m/s <sup>2</sup> peak
Range of velocity: 0.1~199.9mm/s rms
Range of displacement: 0.001~1.999mm p-p
Velocity and displacement range is limited by 2 acceleration 199.9m/s <sup>2</sup>
LCD Size (H×W): 47×104mm
Measurement accuracy: ±5%±2digits
Frequency range of acceleration: 10Hz~1KHz (LO) 1KHz~15KHz (HI)
Frequency range of velocity: 10Hz~1KHz (LO)
Frequency range of displacement: 10Hz~1KHz (LO)
Dimension (L×W×T): 67x30x183mm



## PONPE 211VB

### 4 CHANNEL K THERMOCOUPLE & THERMISTOR

เครื่องวัดและบันทึกอุณหภูมิ 4 ช่อง

#### Features

1. Full display.
2. Screen flipping.
3. Store and view files.
4. Power indicator.
5. Double measurement button.
6. Flashlight.
7. Screen brightness.
8. Select Chinese/English.
9. Shutdown time setting; Machinery grade.

#### Specifications

Measurement range: Acceleration: 0.1~199.9m/s <sup>2</sup>
Velocity: 0.1~199.9mm/s
Displacement: 0.001~1.999mm
Measurement accuracy: Vibration displacement: 0.01~0.02mm, ±10%, ≥0.02mm, ±5%
Vibration velocity: 0~2.0mm/s, ±10%, ≥2.0mm/s, ±5%
Vibration acceleration: 0~2.0m/s <sup>2</sup> , ±10%, ≥2.0m/s <sup>2</sup> , ±5%
High frequency: 1KHz~15KHz (HI)
Low frequency: 20Hz~1KHz (LO)
Shuffle interval of data display: 1 second
Maximum groups of data storage: 7 groups
Power supply: 1.5V AAA battery*2
Humidity range for operation: 30~90%RH
Dimension (L×W×T): 180x54x30mm





## PONPE 325PM

### AIR QUALITY DETECTOR

PM10

PM2.5

เครื่องวัดฝุ่น



#### Specifications

Name: HCHO PM1.0 PM2.5 PM10 TVOC Detector

AQI: (0-500)

PM2.5: (0-999 UG/M &amp; sup3;)

HCHO: (0.001-1.999 Mg/M &amp; sup3;)

TVOC: (0.001-9.999 Mg/M &amp; sup3;)

Input: AC100-240V 50/60HZ 0.15A

Rated output voltage: 5V

Rated output current: 1A

Size: about 155\*87\*35(mm)

## PONPE 425PM

### AIR QUALITY DETECTOR

PM2.5

เครื่องวัดฝุ่น



#### Specifications

Measuring range: 0-999ug/m3

Humidity : 20% to 90%R.H.

Temperature : -9°C to +50°C

Resolution: 1ug/m3

Accuracy: ±10ug/m3 (low concentration) ±15% (high concentration)

Battery capacity: 500mAh

Power supply: Battery

Battery working time: more than 5 hours

Display screen: LED digital display

Product size: 78\*84\*52mm

## PONPE 525PM

### AIR QUALITY DETECTOR

PM2.5

เครื่องวัดฝุ่น



#### Specifications

Humidity Range: 20%-85%

Working Temp:-20 - 50°C

Excellent: 0-35µg/m³

Good : 35-75µg/m³

Slight pollution: 75-115µg/m³

Middle level pollution: 115-150µg/m³

Severe pollution: 150-250µg/m³

Serious pollution: More than 250 g/m and above

Size:75\*75\*46mm

## PONPE 625PM

### AIR QUALITY DETECTOR

PM2.5

เครื่องวัดฝุ่น



#### Specifications

PM2.5: 0-999 ug / m3, Resolution:10 ug / m3, Accuracy: ±15%

Humidity: 20%-90%RH, Resolution:1%RH, Accuracy: ±5%

Temperature : -9~50°C, Resolution:1°C, Accuracy: ±1°C

Input: 5V/1A

Power: Built-in lithium battery 1000mAh,Charging dock with AC adapter

Working environment: -9~50°C, 20%~90%RH

Sensor: High precision laser sensor

Measurement method: Laser scattering

Detection: Automatically

Product Size (L x W x H): 141\*94\*55mm



# Ultrasonic Cleaners

เครื่องล้างความถี่สูง



## PONPE 70UC SERIES

### Features

1. Titanium black mirror stainless steel plate, scratch resistance.
2. No fingerprints left on the tank surface, easy to be cleaned.
3. Advanced smart touch panel is made of plexiglass, stable and durable for safe use.
4. Super sensitive touch button, higher switch speed under 150ms.
5. Optimal control board, avoid component shedding during long distance transportation.

### Specifications

Model	PONPE 702UC	PONPE 703UC	PONPE 706UC	PONPE 709UC
Tank Size L*W*H(mm)	150*140*100	240*140*100	300*150*150	300*235*150
Unit Size L*W*H(mm)	175*165*230	330*165*230	400*175*305	400*265*305
Volume (L)	2	3	6	9
Ultrasonic Power (W)	50	100	150	200
Ultrasonic frequency (kHz)	40	40	40	40
Heating Power (W)	100	100	300	300
Timer (MIN)	1-99	1-99	1-99	1-99
Heating Temperature (°C)	30-80	30-80	30-80	30-80

### Soundproof Lid

- With silicone pads on the four corners



### Beautiful and Practical Basket

- Smooth Edge
- Bearing without Deformation





## COOLING INCUBATOR

ตู้อบเชื้อ

# PONPE LRH SERIES

LED/LCD Microprocessor Controller  
(with timing function)

The cooling incubator is ideal for every application in microbiological field. The range of temperature allows the growth of microorganisms in every environmental situation.

### Specifications

Model	PONPE 70LRH	PONPE 150LRH	PONPE 250LRH
Temperature Range		0~60°C	
Display Resolution		0.1°C	
Temperature Stability		HIGH±0.5°C LOW±1.0°C	
Temperature Uniformity		±1.5°C	
Humidity Range		-	
Humidity Stability		-	
Electrical Requirement		220V 50Hz	
Ambient Temperature		+5°C~30°C	
Power consumption	450W	500W	600W
Interior Dimension (W×D×H)mm	400×350×500	503×470×808	540×460×1000
External Dimension (W×D×H)mm	530×560×1080	600×630×1360	637×662×1590
Shelves	2(pcs)	2(pcs)	3(pcs)
Timing Range		1~5999min	

## PONPE BIF SERIES

- Touch Screen Microprocessor Controller (with timing function)
- The PID controller, with colourful touch screen, clearly shows in every moment the temperature set and that one inside as well as other parameters.



## HEATING INCUBATOR

ตู้อบเชื้อ

### Specifications

Model	PONPE 55BIF	PONPE 150LRH	PONPE 150LRH	PONPE 250LRH
Chamber Volume	35L	50L	118L	210L
Temperature Range		RT +5~80°C		
Temperature Stability		0.2°C		
Display Resolution		0.1°C		
Temperature uniformity(@37°C)		±0.8°C		
Standard Quantity of Shelves/Max	2/5	2/6	2/10	2/16
Shelves loading	20Kg	20Kg	20Kg	20Kg
N/W(Kg)	48	56	82	119
Timer Range	1~5999mins	1~5999mins	1~5999mins	1~5999mins
Interior Dimension (W×D×H)mm	320×320×300	400×415×305	520×530×430	650×650×500
External Dimension (W×D×H)mm	610×545×550	690×640×560	810×755×685	940×875×755
Electrical Requirement		AC220V,50Hz		
Power Consumption	300W	350W	600W	700W



## PONPE BOF SERIES



## FORCED AIR OVEN

ตู้อบความร้อน



USB data collect



shelf



test hole



### Specifications

Model	PONPE 30BOF	PONPE 50BOF	PONPE 120BOF	PONPE 200BOF
Chamber Volume	35L	59L	115L	234L
Temperature Range	RT+10°C~200°C (300°C)			
Display Resolution	0.1°C	0.1°C	0.1°C	0.1°C
Temperature Uniformity(@150°C)	±2.0°C	±2.0°C	±2.0°C	±2.0°C
Standard Quantity of Shelves/Max	2/5	2/9	3/12	3/16
Shelves loading	20Kg	20Kg	20Kg	20Kg
Net Weight(Kg)	43	51	83	112
Timer Range	1~5999mins			
Internal Dimension (W×H×D,mm)	320×320×300	400×415×305	520×530×430	650×650×500
External Dimension (W×H×D,mm)	610×540×550	690×640×560	810×755×685	940×875×750
Electrical Requirement	AC220V,50Hz			
Power Consumption	900W	1100W	2050W	2500W



## PONPE BC SERIES

## COOLING INCUBATOR

ตู้บ่มเชื้อ

Model	PONPE 60BC	PONPE 120BC	PONPE 250BC
Usable Volume	68L	120L	250L
Temperature Range	-10~80°C	-10~80°C	-10~80°C
Temp. uniformity(@25°C)	±1.0°C	±1.0°C	±1.0°C
Temperature Resolution	0.1°C	0.1°C	0.1°C
Timer Range	1~5999min	1~5999min	1~5999min
Number of Shelves	2	3	3
Max Number of Shelves	10	14	16
N/W	85Kg	100Kg	120Kg
Interior Dimension(W*H*D,mm)	400*450*380	500*600*400	550*750*600
Exterior Dimension(W*H*D,mm)	545*1000*670	645*1150*690	695*1300*890
Electrical Requirement	220V 50Hz	220V 50Hz	220V 50Hz
Power Consumption	1300W	1500W	1700W



## PONPE BH SERIES

## COOLING INCUBATOR

ตู้ควบคุมอุณหภูมิ และความชื้น

Model	PONPE 60BH	PONPE 120BH	PONPE 250BH
Effective volume	68L	120L	252L
Temperature Range		-10~80°C	
Temperature homogeneity(@25°C)	±1.0°C	±1.0°C	±1.0°C
Temperature accuracy	0.1°C	0.1°C	0.1°C
Humidity control range	40~95%RH	40~95%RH	40~95%RH
Humidity deviation	±3%RH	±3%RH	±3%RH
Timer Range	1~5999min	1~5999min	1~5999min
Number of Shelves	2	3	3
Max Number of Shelves	10	14	16
N/W(Kg)	95Kg	115Kg	135Kg
Interior Dimension(W*H*D,mm)	400x450x380	500x600x400	550x750x600
Exterior Dimension (W*H*D,mm)	550x750x600	670x1270x200	720x1420x1000
Electrical Requirement	220V 50Hz	220V 50Hz	220V 50Hz
Power Consumption	2200W	2300W	2500W

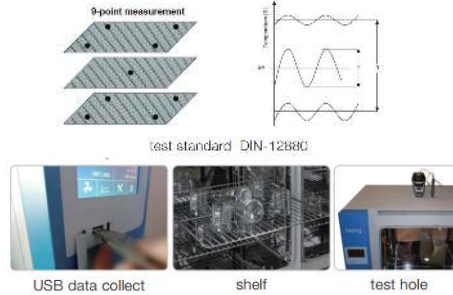




# PONPE BON SERIES

• Touch Screen Microprocessor Controller (with timing function)

• The PID controller, with colourful touch screen, clearly shows in every moment the temperature set and that one inside as well as other parameters.



## NATURAL CONVECTION OVEN ตู้อบความร้อน

Model	PONPE 30BON	PONPE 50BON	PONPE 115BON	PONPE 200BON
Chamber Volume	34L	54L	124L	222L
Temperature Range	RT+10°C~200°C (300°C)			
Display Resolution	0.1°C	0.1°C	0.1°C	0.1°C
Temperature Uniformity(@150°C)	±2.5°C	±2.5°C	±2.5°C	±2.5°C
Standard Quantity of Shelves/Max	2/5	2/6	2/10	2/16
Shelves loading	20Kg	20Kg	20Kg	20Kg
Net Weight(Kg)	43 kg	45 kg	74 kg	103 kg
Timer Range	1~5999mins	1~5999mins	1~5999mins	1~5999mins
Interior Dimension(W×H×D,mm)	320×320×300	400×380×330	520×495×450	650×650×500
Exterior Dimension(W×H×D,mm)	610×580×520	690×640×468	810×755×590	940×910×658
Electrical Requirement	AC220V,50Hz	AC220V,50Hz	AC220V,50Hz	AC220V,50Hz
Power Consumption	850W	1050W	1950W	2250W

# PONPE BH SERIES

## HUMIDITY CHAMBER ตู้ควบคุมอุณหภูมิ และความชื้น

Model	PONPE 20BOV	PONPE 50BOV	PONPE 90BOV
Chamber Volume(Cuft)	0.85	1.80	3.21
Temperature Range	Ambient +10°C ~200°C		
Temperature Resolution	0.1°C	0.1°C	0.1°C
Max. degree of vacuum	133Pa	133Pa	133Pa
Standard Quantity of Shelves/Max	2/5	3/7	3/9
Work chamber material	stainless steel	stainless steel	stainless steel
Interior Dimension (WxHxD,mm)	300x275x300	415x345x370	450x450x450
Exterior Dimension (WxHxD,mm)	445x590x505	580x670x594	610x774x721
Max.load	20Kg	20Kg	20Kg
N/W(Kg)	60	95	145
Inert gas air inlet	✓	✓	✓
Electrical Requirement	AC120V/60Hz	AC120V/60Hz	AC120V/60Hz
Power Consumption	700W	1400W	2000W







# PONPE BPGA SERIES DRYING OVEN ตู้อบความร้อน

## Features

- Polished stainless-steel chamber, semicircular arcs at corners for easy cleaning, and the space between the shelves in the chamber is adjustable.
- Auto-controller of fan speed to prevent damage to the samples
- Large LCD screen to display more data at same time
- Self-check function easy to identify problems.
- Over temperature and temperature difference alarms
- Independent audible and visible temperature-limiting alarm system ensures experiments run safely. (Option)
- Programmable controller: 15 periods 30 steps, 1 to 99 hs 99mins for each periods, fan speed 0 to 100% adjustable. (option)
- RS485 connector can connect computer and printer to record the parameters and the variations of temperature (option)



## Specifications

Model	PONPE 9056BPG-A	PONPE 9106BPG-A	PONPE 9156BPG-A
Chamber Volume	50L	100L	175L
Temperature Range	RT-10~200°C		
Display Resolution	0.1°C	0.1°C	0.1°C
Temperature Stability	±1°C	±1°C	±1°C
Temperature Uniformity	2.5%	2.5%	2.5%
Power Consumption	700W	1100W	1600W
Electrical Requirement	220V 50HZ	220V 50HZ	220V 50HZ
Internal Dimension(WxDxH, mm)	375x370x370	455x430x510	560x530x595
Shelves	2(PCS)	2(PCS)	3(PCS)

## Options

- Intelligent programmable temperature controller(LCD)
- Printer
- Independent temperature-limiting Alarm system
- RS485 connector and software
- Test hole on the left (∅50mm)



# PONPE BPN-RHP SERIES



touch screen



## With Imported Infrared CO2 Sensor

ตู้บ่มเชื้อ

Model	PONPE 40BPN-RHP	PONPE 80BPN-RHP	PONPE 150BPN-RHP	PONPE 240BPN-RHP
Electrical Requirement	220V 50Hz			
Screen	7" Touch screen			
Power Consumption	350W	500W	700W	1000W
Heating Method	Air-jacketed, PID Control			
Temperature Range	RT+5~50°C			
Ambient Temperature	+5~30°C			
Temperature Stability	±0.1°C			
CO2 Range	0~ 20% V/V			
CO2 Control Resolution	±0.1%(IR sensor)			
CO2 Recovery	(Door open 30s, recovery to 5%) ≤ 3min			
Temperature Recovery	(Door open 30s, recovery to 37°C) ≤ 8min			
Humidity Method	Natural vaporization ≥ 90%			
Chamber Volume	40L	80L	150L	240L
Interior Dimension (WxDxH)mm	400x286x350	400x450x500	480x530x610	600x630x670
Exterior Dimension (WxDxH)mm	590x440x576	590x687x790	670x77x880	790x840x940
Shelves	2(pcs)		3(pcs)	
Sterilization method	18hrs (90°C moist heat disinfection)			



# PONPE BS SERIES

## ORBITAL SHAKER เครื่องเขย่าสาร

### Specifications

Model	PONPE 1BS	PONPE 2BS	PONPE 3BS
Speed	40~250rpm	40~250rpm	40~300rpm
Frequency	20rpm	20rpm	20rpm
Maximum Capacity	1500ml	4000ml	6000ml
Amplitude of Tray	20mm	20mm	20mm
Platform size(mm)	250x250	350x350	450x450
Exterior Dimension (WxHxD)mm	290x110x376	390x124x495	490x137x604
Timer	1~5999min	1~5999min	1~5999min
Net Weight	20 kg	30 kg	40 kg
Electrical Requirement	220V 50Hz		
Power Consumption	60W		



Options



Spring wire rack



Universal attachment



Cell culture spring rack



Individual clamp



Rubber mat



## PONPE BSI SERIES

### LCD Microprocessor Controller (with timing function)

The shaking incubator combines in one instrument two typical laboratory operation: shaking and incubation of samples.

Combining the convenience of a benchtop incubator and a shaker, it is ideal for cell culture, solubility studies, extraction procedures and many other laboratory applications.

## SHAKING INCUBATOR ตู้บ่มเชื้อแบบเขย่า

Model	PONPE 1BSI	PONPE 2BSI	PONPE 3BSI
Temperature Range	RT+5~65°C		
Temperature Resolution	0.1°C	0.1°C	0.1°C
Platform Size(WxD,mm)	250x250	350x350	400x400
Interior Height (H,mm)	220	270	320
Exterior Dimension (WxHxD,mm)	390x370x590	490x450x690	590x550x800
Maximum Capacity	1500ml	4000ml	6000ml
N/W	32 Kg	42 Kg	52 Kg
Convection	Forced Convection	Forced Convection	Forced Convection
Shaking Speed Range	40~250rpm	40~250rpm	40~300rpm
Speed Accuracy	±1rpm	±1rpm	±1rpm
Amplitude	20mm	20mm	20mm
Spring Wire Rack	Standard	Standard	Standard
Timer Range	1~5999mins	1~5999mins	1~5999mins
Electrical Requirement	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz
Electrical Requirement	450W	650W	750W



# XENON TEST CHAMBER ตู้ทดสอบซีนอน



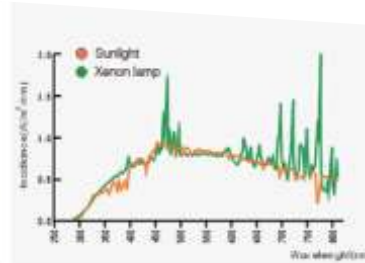
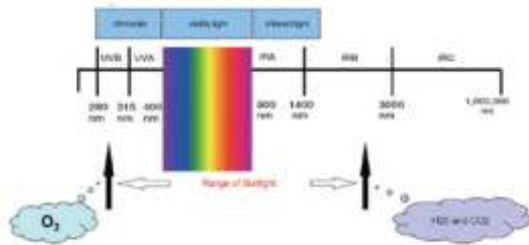
## Touch Screen Microprocessor Controller

### More real xenon lamp

- The xenon arc lamp reoccurs the full solar spectrum vividly which include ultraviolet, visible
- light and red light. With high quality lamp and the use life up to 1200~1500 hours.

### Fast test results

- It can accelerate the aging experiment to achieve the effect of rapid aging.



The spectrum of sun and Xenon lamp

Blackboard thermometer

## Specifications

Model	PONPE B-SUN-I	PONPE B-SUN-II
Working chamber Dimension(WxDxH,mm)	320x320x320	
Exterior chamber Dimension(WxDxH,mm)	890x580x590	
Control system	Siemens PLC	
Program function	4 groups standard program built-in and 2 groups program can be set	
Sample area	930cm <sup>2</sup>	
Sample surface temperature monitoring	blackboard temperature automatic control by sensor	
Irradiance control	340nm,420nm or 300nm-400nm Wavelength automatic control (standard with@340nm High-precision sensors)	
Spraying system	NO	Yes
Lamp cooling method	air cooling	
Sample shelf type	Flat plate type	
Lamp	Standard lamp tube, or Atlas lamp tube(optional)	
Electrical requirement	3500W	
Power consumption	220V, 50Hz	



# B-UV SERIES



## UV TEST CHAMBER ตู้ทดสอบยูวี



### Controller

- B-UV-S series provide 3 spray headers which can meet the uniformity of rainfall for flat sample rack.
- Radiation intensity adjustment with optional RM-20 irradiance meter which by manual adjustment.
- Blackboard temperature self-control by test set value, to meet user for lighting, condensation, spray, temperature and other aging test chamber.

Model	PONPE B-UV-S (desktop)	PONPE B-UV-I	PONPE B-UV-II
Temperature Range	Light cycle	45°C - 80°C	
	Condensation cycle	45°C - 60°C	
Light source	Type	UVA	UVA or UVB fluorescent ultraviolet lamp
	Power	20W/pc, total 4 pcs	40W/pc, total 8 pcs
	Wavelength range	Standard with UVA@340nm	Standard with UVA@340nm Optional@351nm or UVB@313nm
	Irradiance	Handle	Irradiance automatic control
Calibration function	No	Have	
Spraying function	3-hole spraying	No	12-hole sample spraying device
Sample shelf size	8 pcs standard sample test shelf	18 pcs standard sample test shelf(75x150mm)	
Center distance between sample and lamp	150mm~280mm	50mm±3mm	
Exterior dimension (WxDxH,mm)	770x565x690	1200x450x1500	
Cycle mode	Dark, light, spray, condensate set multi-cycle automatic control		
Light control	Handle	Irradiance automatic monitoring and control	
Electrical requirement	220V 50Hz		
Power consumption	2000W		

## VACUUM OVEN ตู้อบสุญญากาศ



Model	PONPE 20BV	PONPE 50BV	PONPE 90BV
Chamber Volume	24L	51L	91L
Temperature Range	RT+10°C ~200°C	RT+10°C ~200°C	RT+10°C ~200°C
Temperature Resolution	0.1°C	0.1°C	0.1°C
Max. degree of vacuum	133Pa	133Pa	133Pa
Standard Quantity of Shelves/Max	2/5	2/7	3/9
Work chamber material	stainless steel	stainless steel	stainless steel
Interior Dimension (WxHxD,mm)	300x275x300	415x345x370	450x450x450
Exterior Dimension (WxHxD,mm)	445x590x505	580x670x594	610x774x721
Max.load	20Kg	20Kg	20Kg
N/W(Kg)	60	95	145
Inert gas air inlet	✓	✓	✓
Electrical Requirement	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz
Power Consumption	700W	1400W	2000W
Timer Range	1~5999mins	1~5999mins	1~5999mins





# BWB SERIES

## WATER BATH อ่างควบคุมอุณหภูมิ



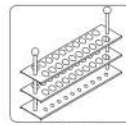
water level sensor



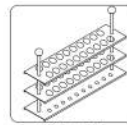
Holed bottom plate



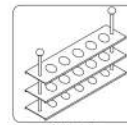
### Rack for Tubes



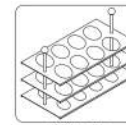
φ13mm × 20



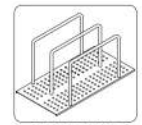
φ18mm × 20



φ31mm × 5



φ56mm × 8



Blood bag holder

## Specifications

Model	PONPE 12BWB	PONPE 22BWB
Temperature Range	Ambient+5~100°C	
Temperature Fluctuation	±0.3°C	
Tracking Alarm	±0.2°C	
Timer	1~5999min	
Interior Dimension(WxDxH)mm	305x130x246	505x150x330
Exterior Dimension(WxDxH)mm	355x340x264	559x340x343
Net Weight	12 Kg	18 Kg
Electrical Requirement	AC220V / 50Hz	
Power Consumption	750W	1450W

## BXNPCr SERIES

## MUFFLE FURNACE

### Safety

เตาเผาความร้อนสูง

- The safety switch will automatic shutdown when door open ensures the safety of the operator, fan motor overheat and abnormal alarm system( 1 Heater , 2 temperature sensor, 3 memory contents, 4 over temperature) sound and light alarms reminders operator and ensures experiments run safely
- Over-current, over-voltage, overheat and various safety measures to ensure safety.
- Ceramic fiberboard insulation material with good heat insulation effect, low temperature on shell surface.



Model	Max. Temp	Volume	Interior Size (mm)	Exterior Size (mm)	Electrical	Power	Heating Element	Temp Accuracy / Uniformity
PONPE 2-2.5-10BXNPCr	1000	2L	120x200x80	400x580x610	220V/50HZ	2.5KW	Electric furnace wire	±1°C / 5°C
PONPE 2-4-10BXNPCr	1000	7L	200x300x120	520x650x660	220V/50HZ	4KW	Electric furnace wire	
PONPE 2-8-10BXNPCr	1000	16L	250x400x160	570x810x740	380V/50HZ	8KW	Electric furnace wire	
PONPE 2-12-10BXNPCr	1000	30L	300x500x200	700x930x845	380V/50HZ	12KW	Electric furnace wire	
PONPE 2-2.5-12BXNPCr	1000	2L	120x200x80	400x580x610	220V/50HZ	2.5KW	Nickel chrome wire	
PONPE 2-5-12BXNPCr	1000	7L	200x300x120	520x650x660	380V/50HZ	5KW	Nickel chrome wire	
PONPE 2-10-12BXNPCr	1000	16L	250x400x160	570x810x740	380V/50HZ	10KW	Nickel chrome wire	
PONPE 2-2.5-10BXTPCr	1000	2L	120x200x80	400x580x610	220V/50HZ	2.5KW	Electric furnace wire	
PONPE 2-4-10BXTPCr	1000	7L	200x300x120	400x580x610	220V/50HZ	4KW	Electric furnace wire	
PONPE 2-8-10BXTPCr	1000	16L	250x400x160	570x810x740	380V/50HZ	8KW	Electric furnace wire	
PONPE 2-10-12BXTPCr	1000	16L	250x400x160	570x810x740	380V/50HZ	10KW	Nickel chrome wire	



# WATER BATH อ่างควบคุมอุณหภูมิ

## Microprocessor controller (with timing function)



### Features

- A stamping molding stainless steel tank, easy to clean.
- LCD screen, multiple data display with timing function, easy to operate.
- Stainless steel shelves cover heater and sensor to avoid damage during using.
- Once-forming stainless steel lid.
- Cut off heater automatically in case of lack of water, meanwhile visible and audible alarm ensures to remind users in time.
- Independent temperature-limiting alarm system.
- temperature error alarm.
- Test tube holder can be placed. (Option)



### Specifications

Model	PONPE 5BWS	PONPE 10BWS	PONPE 20BWS	PONPE 0505BWS	PONPE 0510BWS	PONPE 12BWS PONPE 12BWSG	PONPE 27BWS PONPE 27BWSG
Electrical Requirement	AC220 50Hz						
Power Consumption	500W	1000W	2050W	500W+500W	500W+1000W	800W	1000W
Temperature Range	RT+5~99°C					RT+5~100°C RT+5~80°C	
Temperature Stability	±0.3°C					±0.2°C	
Temp Alarm	±2°C					0.1°C	
Interior Dimension(WxDxH)mm	130x280x150	220x280x150	290x490x150	130x280x150	130x280x150 290x490x150	300x240x200	500x300x200
Exterior Dimension(WxDxH)mm	396x250x260	396x330x260	600x390x260	450x395x260	526x395x260	480x300x480	680x360x390
Timing Range	RT+5~99°C						
Chamber Volume	2holes ∅2mm	4holes ∅92mm	6holes ∅92mm	2holes+2holes	2holes+4holes	11L	20L



## LED Microprocessor Controller (with timing function)

Provided for desiccation, torrefaction, wax-melting and sterilization in mining industry, laboratories and scientific research institutes.



## Specifications

Model	PONPE 9013DHGA	PONPE 9030DHGA	PONPE 9050DHGA (9053DHGA)	PONPE 9070DHGA	PONPE 9140DHGA	PONPE 9240DHGA	PONPE 9420DHGA	PONPE 9460DHGA	PONPE 9920DHGA
Electrical Requirement	220V 50Hz				380V 50Hz				
Temp. Range	RT+10°C ~250°C								
Display Resolution	0.1°C								
Temp. Stability	±1°C								
Temp. uniformity	±3%(at 100°C)								
Ambient Temp.	+5~40°C)								
Power Consumption	500W	850W	1100W	1550W	2050W	2450W	3100W	4000W	5200W
Chamber Volume	16L	30L	50L	80L	136L	220L	420L	620L	1000W
Interior Dimension (WxDxH)mm	250x260x250	340x320x320	420x395x350	450x400x450	550x450x550	600x500x750	640x585x1355	840x600x1355	1000x600x1600
Exterior Dimension (WxDxH)mm	530x370x420	620x440x490	720x530x520	740x530x630	840x580x730	880x630x930	780x730x1780	980x800x1880	1140x800x2150
Shelves	2(pcs)		2(pcs)		2(pcs)		3(pcs)		4(pcs)
Timing Range	1~9999min								

Model	PONPE 9015DHGA (9035DHGA)	PONPE 9055DHGA	PONPE 9075DHGA	PONPE 9145DHGA	PONPE 9245DHGA	PONPE 9425DHGA	PONPE 9625DHGA
Electrical Requirement	220V 50Hz			380V 50Hz			
Temperature Range	RT+10°C ~300°C						
Display Resolution	0.1°C						
Temperature Stability	±1°C						
Temperature uniformity	±3%(at 100°C)						
Ambient Temperature	+5~40°C)						
Power Consumption	850W	1100W	1550W	2050W	2450W	3100W	4000W
Chamber Volume	16L/30L	50L	80L	136L	220L	420L	620L
Interior Dimension (WxDxH)mm	250x260x250 340x320x320	420x395x350	450x400x450	550x450x550	600x500x750	640x585x1355	840x600x1355
Exterior Dimension (WxDxH)mm	530x370x420 620x440x490	720x530x520	740x530x630	840x580x730	880x630x930	780x730x1780	980x800x1880
Shelves	2(pcs)	2(pcs)	2(pcs)	2(pcs)	2(pcs)	3(pcs)	4(pcs)
Timing Range	1~9999min						





# HEATING INCUBATOR ตู้อบความร้อน

## LED Microprocessor Controller (with timing function)

Provided as a necessary equipment for scientific research to colleges as well as biological, agricultural and scientific research departments for storage of mould and biology cultivation.



### Features

- 304 stainless steel, mirror polishing processing, easy to clean and maintain.
- PID controller with over temperature alarm and timing function ensures precise and reliable control
- Auto fan speeds ensures a proper fan speed when temperature is stable.
- Inner glass door provide a better observation.
- Glass door switch control automatically cut the heating elements and fan when door is open.



### Option

- Independent over-temperature alarm system ensures experiments running safely.
- RS 485 connector can connect computer to save the data via software.
- UV lamp sterilization system ensures a better and easier sterilizing.

### Specifications

Model	DHP-9012	DHP-9032	DHP-9052	DHP-9082	DHP-9162	DHP-9272	DHP-9402 DHP-9602 DHP-9902
Electrical Requirement	220V 50Hz						
Temperature Range	RT+5~65°C						
Display Resolution	0.1°C /±0.5°C						
Temperature Uniformity	±1.5°C						±2.0°C
Ambient Temperature	±3%(at 100°C)						
Ambient Temperature	+5~40°C)						
Power Consumption	200W	200W	300W	400W	600W	750W	1100W 1400W 2200W
Chamber Volume	16L	35L	50L	80L	80L	270L	420L 620L 1000L
Interior Dimension (W×H×D,mm)	250x260x250	340x320x320	415x360x355	500x400x400	500x500x650	600x600x750	640x585x1355 840x600x1355 1000x600x1600
Exterior Dimension (W×H×D,mm)	530x480x420	620x490x490	690x500x500	780x530x560	790x630x810	890x740x910	780x750x1880 980x800x1880 1140x800x2150
Shelves(pcs)	2						3/4/4
Timing Range	1~5999min						



# SHAKING WATER BATH อ่างควบคุมอุณหภูมิแบบเขย่า

## LCD Microprocessor Controller (with timing function)

Widely applicable for laboratory researches on bacteria cultivation, fermentation, hybridization, chemical and biochemical reaction, enzymes and tissues research which have a high requirement on precision of shaking speed and temperature



### Features

- Large colorful LCD display.
- Water level sensor shuts down further heating to the tank upon low water volume.
- Audible and Visual Alarm indicators when water level reaches critical levels.
- 304 stainless steel molded tank.
- A variety of tube racks can be used for different test tubes.
- The standard stainless-steel bottom plate helps prevent direct contact by accessories and tubes to heating element and sensors.
- Drain valve makes emptying of bath water fast and easy for cleaning and moving.
- A variety of tube racks and accessories.

### Specifications

Model	PONPE 1DKZ	PONPE 2DKZB	PONPE 3DKZ PONPE 3DKZB	PONPE 1DKZC
Temperature Range	PONPE 1DKZC			10~99°C
Display Resolution	0.1°C			
Temperature Uniformity	±1°C			
Shaking Speed Range	30~150rpm			
Amplitude	30mm (Standard) or 40mm (Option)			
Power Consumption	1250W		1650W	1500W
Interior Dimension(WxDxH)mm	438x310x250		618x310x250	440x300x250
Exterior Dimension(WxDxH)mm	643x350x353		823x350x355	710x410x710



# SHAKING INCUBATOR

ตู้บ่มเพาะเชื้อ แบบเขย่า

## LCD Microprocessor Controller (with timing function)

### Features

- Large LCD screen to display more data at same time.
- R134a refrigerant, imported compressor and fan motor.
- Big observation windows.
- 304 Stainless steel chamber and platform, easy to clean.
- The parameters can be automatically stored in case of power failure, and it will continue run as presetting program after turn on.
- Microprocessor PID controller for temperature and shaking speed with timing function.



### Safety

- Safety door switch, auto pause operation when door is opened.
- Smooth start and stop system prevents liquid spillage.
- Auto-controller of fan speed to prevent damage to the samples.
- Maintenance-free brushless DC motor can continuous operation for long time.
- Self-diagnosis function, it will display error when failure. Safety door switch, auto pause operation when door is opened.
- Smooth start and stop system prevents liquid spillage.
- Auto-controller of fan speed to prevent damage to the samples.
- Maintenance-free brushless DC motor can continuous operation for long time.
- Self-diagnosis function, it will display error when failure.



### Specifications

Model	PONPE 1DKZ	PONPE 2DKZB	PONPE 3DKZ PONPE 3DKZB	PONPE 1DKZC
Electrical Requirement	220V 50Hz			
ShakingSpeed Range	40~300r/min			
Amplitude	26mm			
Temperature Range	RT+5~65°C		4~65°C	
Display Resolution	0.1°C			
Power Consumption	1050W		1300W	
Platform Size(mm)	750x460	920x500	750x460	920x500
Exterior Dimension(WxDxH)mm	1080x620x915	1250x660x915	1080x620x915	1250x660x915
Timing Range	1~5999min			

### Options



Spring wire rack



Universal attachment



Cell culture spring rack



Individual clamps



Rubber mat



# CONSTANT CLIMATE CHAMBER ตู้ควบคุมอุณหภูมิและความชื้น

## LCD/Touch Programmable Controller (with timing function) Features

- LCD or Touch screen with microcomputer control, mirror polish stainless steel chamber with semicircular arcs at four corners.
- Over temperature and temperature deviation alarm.
- Capacitance humidity sensor and PT 100 temperature sensor.
- Automatically temperature and humidity balance system.
- Reserved n 25 validation port is easy to validate the temperature real time.
- Two sets compressors and fans work alternately that ensure no frost will be produce during test.



### Programmable Touch Screen

- Large LCD screen to display more data at same time.
- English operation menu, display current data curves.
- 100 groups with 1000 periods 999 circulations, max timing for each period is 99 hours 59 minutes.
- Auto lock after setting data.
- Available to programe on computer via RS-484 or RS-232.
- Record temperature and time curves, data storage and logging function.

## Specifications

Model	PONPE 150LHSD	PONPE 150LHSDP	PONPE 800LHSD	PONPE 800LHSDP
	PONPE 250LHSD	PONPE 250LHSDP	PONPE 1000LHSD	PONPE 1000LHSDP
	PONPE 550LHSD	PONPE 500LHSDP	PONPE 1500LHSD	PONPE 1500LHSDP
Temperature control range	0~65°C without illumination, 10~65°C with illumination			
Temperature Stability	±0.5°C			
Temperature Uniformity	±2°C			
Humidity Rang	35~95%RH			
Humidity Stability	±3%RH			
Timing Rang	Each period 1~5999min			
Controller	LCD screen	touch screen	LCD screen	touch screen
Ambient Temperature	+5~30°C			
Electrical Requirement	AC220V 50Hz		AC380V 50Hz	
Power Consumption	2000W/2100W/2300W/3750W		7150W/7150W/10600W	
Chamber Volume	80L/150L/250L/500L		800L/1000L/1500L	
Interior Dimension (WxDxH)mm	400x400x500 550x405x670 600x500x830 670x725x1020		800x590x1650 1050x590x1650 1550x590x1650	
External Dimension (WxDxH)mm	550x790x1080 690x805x1530 740x890x1680 850x1100x1930		1360x890x2000 1610x890x2000 2110x890x2000	
Shelves	2/3/3/4(pcs)		4(pcs)	

### Illumination(options)

### Cold white fluorescence and UV light

spectrum range	UV @320nm~400nm, peak wavelength @365nm
Intense/Deviation	Cold white fluorescence 0~6000lux/±500lux, UV0~5W/m2
Standard configuration	Cold white fluorescence (D65,6500K) comply with ISO10977;UVA@340nm~400nm Ultraviolet fluorescent lamp
Comply standard	GMP general standard, ICH-Q1B Cold white fluorescence ≥1.2*106 Lux,hr, Ultraviolet fluorescent lamp ≥200w.hr/M2



# CIRCULATING BATH

## อ่างน้ำร้อนแบบน้ำวน

### LCD Microprocessor Controller (with timing function)



Provided for precise and constant temperature and auxiliary heating in colleges industrial and mining enterprises and scientific research departments.

### Features

- Microprocessor temperature controller.
- Audible and visible alarm for temperature and water level.
- R134a refrigerant, imported compressor.
- With interface to external water bath.
- RS485 connector is option which can connect computer to record the parameters and the variations of temperature.(option)



### Specifications

Model	Temperature Range	Precision	Interior Dimension	Chamber volume	Electrical Requirements	Pump (flux)	Power Consumption	
PONPE 5MPH	RT+5~100°C	±0.1	150×160×150	6.7L	220V 50Hz	8L/min	1050W	
PONPE 13MPH			240×170×150	10.9L			1050W	
PONPE 19MPH			330×300×150	22.5L			1050W	
PONPE 13MPGA	RT+5~100°C	±0.2	180×300×150	14.5L			1050W	
PONPE 100MPGH	RT+5~100°C		240×170×200	14.5L			1050W	
PONPE 501MPA	RT+5~100°C		150×160×150	4.5L			2300W	
PONPE 10MPC	-10~100°C						2300W	
PONPE 20MPC	-20~100°C						2800W	
PONPE 30MPC	-30~100°C		240×170×200	13L			3150W	
PONPE 40MPC	-40~100°C						3150W	
PONPE 50MPC	-50~100°C						2300W	
PONPE 10MPGC	-10~100°C		130×150×330	≤50L			2300W	
PONPE 20MPGC	-20~100°C						3100W	
PONPE 40MPGC	-40~100°C						3100W	
PONPE 50MPGC	-50~100°C		1050W					
PONPE 5MP(controller)	-100~200°C		0.1					1050W

\*When setting temperature is above 80°C , liquid medium should be mineral oil.

\*When setting temperature is below 5°C , liquid medium should be antifreeze (Absolute alcohol or absolute glycol)

\*Ambient temperature: +5~35°C

### Specification test condition

- Ambient temperature: 20°C
- Electrical requirements: 220V/50Hz
- Liquid medium: pure water



PONPE 13MPH  
PONPE 19MPH



PONPE 100MPGH

# PROTRONICS

38/40-41 Moo 3, Lam Luk Ka Road, Khu Khot Subdistrict,  
Address Lam Luk Ka District Pathum Thani 12130 Thailand.

Tel. 02-5316293, 02-5316295-6, 02-9910440 (automatic)

Fax. 02-5316294



@ponpe



โปรตรอนิกส์