

# 有源差分探頭 Differential Probe Active Probe

## ■UT-P30



---

## INSTRUCTION MANUAL 使用說明書

---

# UT-P30

## 1.Features

The UT-P30 differential probe provides a safety means for measuring differential voltage to all models of oscilloscopes. It can convert the high differential voltage ( $\leq 800\text{Vp-p}$ ) into a low voltage ( $\leq 7\text{V}$ ) and display on the oscilloscope. Its bandwidth is up to  $100\text{MHz}$ , which is ideal for big power testing, development and maintain.

The UT-P30 is designed to operate with the  $1\text{M}\Omega$  impedance oscilloscopes. When combine with the  $50\Omega$  load, the attenuation will be 2 times.

UT-P30 is recommend to use with our own manufactured PL-10 to expand the measuring with the electricity meter to observe more accurate measurement. The accuracy of oscilloscope is 1% and the DMM is less than 1%.

## 2.Specifications

- (1) Bandwidth: DC-100MHz
- (2) Attenuation: X100, X10
- (3) Accuracy:  $\pm 1\%$
- (4) Input voltage range (DC+AC PEAK TO PEAK)
  - $\leq 80\text{V}$  for x10, (about 29V RMS)
  - $\leq 800\text{V}$  for x100, (about 290V RMS)

(5) Permitted max input voltage:

Max differential voltage: 800V(DC+AC PEAK TO PEAK)

Max voltage between each input terminal and ground:  
5KV RMS

(6) Input Impedance:

Differential:  $4M\Omega / 1.3pF$

Between terminal and ground:  $2M\Omega / 2.6pF$

(7) Output voltage:  $\leq 7V$

(8) Output impedance:  $50\Omega$

(9) Rise time:

3.5ns for x100

3.5ns for x10

(10) Rejection rate on common mode:

60Hz:  $> 80dB$ ; 100Hz:  $> 60dB$ ; 1MHz:  $> 50dB$

(11) Power Supply: Only External 6V DC power supply.

(12) Consumption: 150mA max (0.9 Watt)

### 3. Operating environmental conditions

	Reference	Use	Storage
Temperature	+20°C ... +30°C	0°C .... +50°C	-30°C .... +70°C
Relative Humidity	≤70%RH	10%...85%RH	10%...90%RH

(1) Dimensions and weight : 69x26x165mm; 500g

(2) Electrical safety to **IEC 1010-1**

Dual insulation

Installation category III

Degree of Pollution 2

Related voltage or max line-earth : 5KV RMS

CE : EN50081-1 and 50082-1

### 4. Operating procedure

- Connect the probe to the oscilloscope with the insulated BNC/BNC lead.
- Adjust the vertical zero adjustment of the oscilloscope if necessary.
- Select the attenuation ratio\* and the vertical deviation of the oscilloscope in accordance with the conversion table below.

- NB: The POWER light must come on.

Attenuation ratio	X100	X10
Voltage Input Range (DC+AC Peak to PEAK)	800V	80V

## [N.B]

The real vertical deviation in V/div is equal to the attenuation factor multiplied by the range of vertical deviation selected on the oscilloscope. It will be doubled in the case of use of a 50  $\Omega$  load.



## Maintenance

For maintenance, only use specified spare parts. The manufacturer can not be held responsible for any accident arising following a repair made other than its after sales service or approved repairs.



## Cleaning

This probe does not require any particular cleaning. If necessary, clean the case with a cloth slightly moistened with the soapy water.

## ■ **Warranty**

Unless notified to the country,our instruments are guaranteed against any manufacturing defect or material defect. They do not bear the specification known as the safety specification.

Our guarantee,which may not under any circumstances exceed the amount of the invoiced price,goes on further than the repair of our faulty equipment,carriage paid to our workshops.

## ■ **Repair**

Maintenance,repairs under or out of guarantee.Please return the product to the manufacturer.