

Analog panel meters

1 Summary

This meter is widely used as direct acting analog indicator electrical measuring instrument, it is used for measuring various electrical parameters, such as voltage, current, power, frequency, power factor, etc. in DC/AC circuit. The advantage of the analog panel meter is, it can show the trend of the measured electrical parameters. It's mainly used in mining enterprises, metallurgy, chemical, electricity, complete equipment and all kinds of electronic control devices. The appearance is simple and elegant.

2 General technical specification

The influence of vibration and impact	Common Type
Installation position	Applicable vertical installation, $\pm 5^\circ$ gradient is allowed, unless others specified
Storage temperature	$-40^\circ\text{C} \sim +70^\circ\text{C}$
Damping time	Less than 5s
Working condition	Reference temperature is $23^\circ\text{C} \pm 2^\circ\text{C}$, relative temperature is 40~85%; the temperature limit of working condition is $-20^\circ\text{C} \sim +55^\circ\text{C}$, relative humidity should be less than 95%, without dust and corrosive gas in the air
Insulating strength	can stand withstand voltage test with frequency 50Hz sine wave AC 2kV voltage lasting 1min
Insulation resistance	more than $20\text{M}\Omega/\text{DC}500\text{V}$

1 Main structure and work principle

The models of NP series mounted panel meters are mainly NP48、NP72、NP96.

1.1 NP series square panel meters are electromagnetic type, adopting repulsive construction. The meters are consist of measuring mechanism and indicating device., with casing adopted by flame-retardant ABS engineering plastics, safe measure terminals, high-efficiency connection type, and adopted by printing dial & transparent glass cover. The whole looks beautiful and provides an open view.

2 Main technical parameters

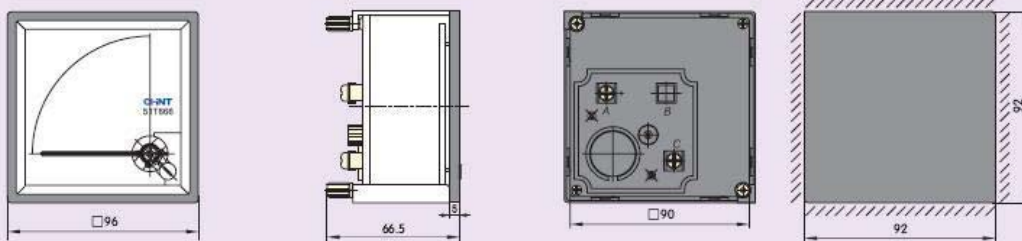
Product Name	Specification	Measuring Range	Accuracy Class
DC Ammeter	NP48-A DC NP72-A DC	$50\mu\text{A} \sim 20\text{A}$ (direct)	Class 1.5
	NP96-A DC	$20\text{A} \sim 10\text{kA}/60\text{mV}$ or 175mA (external device)	
DC Voltmeter	NP48-V DC NP72-V DC	$5\text{V} \sim 750\text{V}$ (direct)	(NP48-VD is Class 2.5)
	NP96-V DC	$450\text{V} \sim 450\text{kV}/1\text{mA}$ or 15mA (external device)	
AC Ammeter	NP48-A NP72-A	$500\text{mA} \sim 100\text{A}$ (direct)	$\leq 30\text{A}$ Class 1.5
	NP96-A	99T666 is $500\text{mA} \sim 30\text{A}$ (direct)	$> 30\text{A}$ Class 2.5
		$5\text{A} \sim 10\text{kA}/5$ or 1A (external device)	99T666 Class 2.5
AC Voltmeter	NP48-V NP72-V	$15\text{V} \sim 600\text{V}$ (direct)	Class 1.5
	NP96-V	$380\text{V} \sim 450\text{kV}/100\text{V}$ (external device)	NP48-V is Class 2.5
Frequency Meter	NP48-Hz NP72-Hz	$45 \sim 55\text{Hz}$ 、 $45 \sim 65\text{Hz}$ 、 $55 \sim 65\text{Hz}$ etc.	Class
	NP96-Hz	Rated voltage 100V 220V 380V	
Power Meter Varmeter	NP48-kW/var	100V、220V、380V~380kV/100V	Class 2.5
	NP72-kW/var NP96-kW/var	5A、 $5\text{A} \sim 10\text{kA}/5\text{A}$ (external device)	
3-phase Power Factor Meter	NP48- $\cos\Phi$ NP72- $\cos\Phi$	$0.5\text{C} \sim 1 \sim 0.5\text{L}$	Class 2.5
	NP96- $\cos\Phi$	100V 5A, 380V 5A	

NP series
panel meter

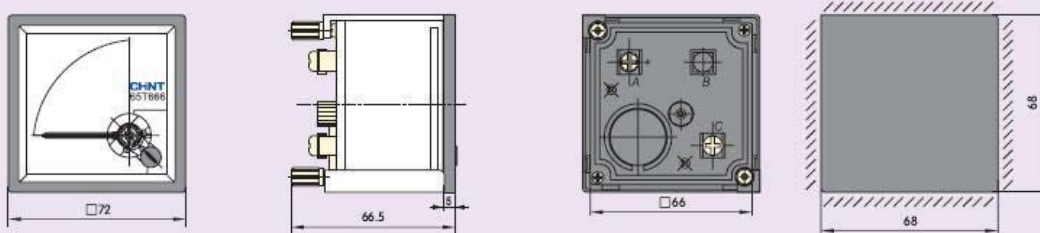


Analog panel meters

NP96 series



NP72 series



NP48 series

