## Operation instruction QB316 instead of UP316

QB series—QB316(UP316) (Three and a half) Stable digital panel meters

## **First: Product introduction:**

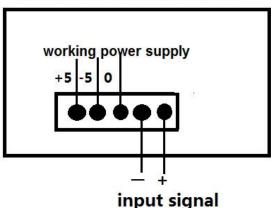
QB316 (LCD) digital panel meters. It is one of our company's QB series. Of digital panel meters

It used ICL7106Z as A/D exchange circuit. It have advantages of good linearity, high input impedance, working stabilization and so on. It is a kind of DC voltage ammeter with good performance and highprecision. It is easy to assemble. It can be used to measure voltage, ammeter, temperature, humidity acidity pressure, displacement and so on. It is a good replacement product instead of pointer table.

## Second: Main Technology Data

- ◆ Working voltage: DC9V±10% (or ±5V power supply)
- ◆ Electric current lower: 10mA
- ♦ Measure distance showing: Full measure showing (-1999~1999) reading number, input voltage  $\pm 199.9 \text{mv}$  (It called 0.2v or 200mV). It also can be made to be a full measuring input voltage which depends on customer require likes input voltage are 2V, 20V, 200V and so on
- ◆ Display precision: 0.1% ±1character
- ◆ Temperature excursion: 100PPM/°C

## **Instrument wiring diagram**





- ◆ Sample rate: 3 times/every second
- Input impedance: 0.2v, 2V time,  $>1000M\Omega$ , 20V, 200V time,  $>1M\Omega$
- ◆ Work environment: 0-50°C
- ◆ Over range display: show "1" or "-1"
- ◆ Under voltage display: When working voltage is lower than 7.5, it shows LOBAT
- ◆ Outside size: circuit board size: 76×46mm
- ◆ Opening hole size: 55×34mm. Assembling holes distance: 69mm. Hole diameter: 3.5mm
- ◆ Weight: 35grams
- ◆ Need the decimal point: The decimal point had connected well when it leaved factory
- ◆ Usage: This product had been verified well when it leave factory. The full value can be recalibrated by a potentiometer on the meter head when you use it

Third: Range Variation Parameter Table

Volmeter	Input signal	range ability	Ra	Rb	Rc
	2V	$0\sim\pm1.999$	short circuit		10K
	20V	$0\sim\pm19.99$	1 M	100K	10K
	200V	$0\sim\pm199.9$	1 M	10K	10K
	500V	$0 \sim \pm 500$	1 M	10K	10K
	200mV	$0\sim\pm199.9$	short circuit		200 Ω
Amperemeter	2A	$0\sim\pm1.999$	short circuit		200 Ω
	5A	$0\sim\pm5.00$	short circuit	0.1Ω (2w)	3.6K
	10A	$0\sim\pm10.0$	short circuit	0.3Ω (2w)	200 Ω
	20A	$0\sim\pm19.99$	short circuit		200 Ω
	30A	$0\sim\pm30.0$	short circuit		2K
	50A	$0\sim\pm50.0$	short circuit		680 Ω
	100A	$0\sim\pm100.0$	short circuit		200 Ω
	200A	$0\sim\pm199.9$	short circuit		200 Ω
	500A	$0\sim\pm 5.00$	short circuit		680 Ω

Mark:5A~500A have to external with corresponding changes in the 76mv shunt