

# DR Series Ampere/Voltage meters

## Operation Guide

### 1.Characteristics

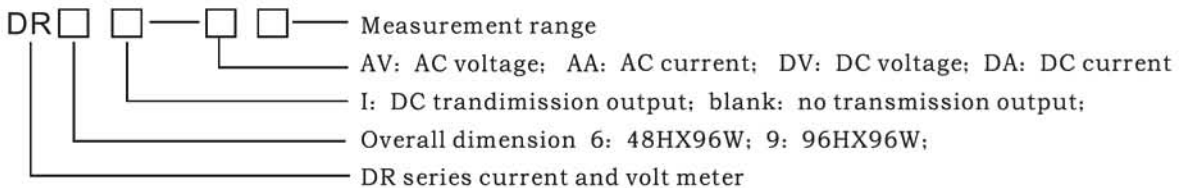


- ◎ Standard overall dimensions:48x96mm;96x96mm
- ◎ Speed at 2.5times/second
- ◎ Zero point adjustment(fixed decimal points)
- ◎ Display range  $\pm 1999$
- ◎ 0.8inch ultra large red LED display

### 2.Technical parameters

Items ofproperties	Specific parameters
Power supply voltage	AC220V $\pm$ 15% 50/60Hz
Maximum display	1999 (AC display effective values)
Input mode	Single terminal input
A/D conversion	Dual integral
Sampling	Approx2.5times/second
Frequency range	40~200Hz( only for counterflow)
Overflow display	"1" or "-1"
Polarity display	Only display "-", only for counterflow
Display	0.8-inch red digital tube
Ambient temperature	0~50 $^{\circ}$ C
Ambient humidity	35~85%RH
Power consumption	$\leq$ 4VA
Voltage resistance	AC 1500V 1min
Insulating resistance	DC 500V $\geq$ 100M $\Omega$
Weight	Approx 350g
Measurement Accuracy	0.5%F.S $\pm$ 2digit

### 3.Appendix forms



## 4. Models and specification of instruments

### [1] AC digital voltmeter

Model and specification	Measurement range	Resolution	Change in initial inductor	Measurement accuracy	Maximum allowable input	Input impedance
DR6(9)-AV2	2V	1mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	10V	5M $\Omega$
DR6(9)-AV20	20V	10mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	50V	5M $\Omega$
DR6(9)-AV200	200V	100mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	500V	5M $\Omega$
DR6(9)-AV600	600V	1V	Direct input	$\pm 1\% \text{F.S} \pm 2 \text{Digit}$	1000V	5M $\Omega$
DR6(9)-AV10K	10KV	10V	10KV: 100V	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$		5M $\Omega$

### [2] AC digital ampere meter

Model and specification	Measurement range	Resolution	Change in initial inductor	Measurement accuracy	Maximum allowable input
DR6(9)-AA0.2	200mA	0.1mA	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	500mA
DR6(9)-AA2	2A	1mA	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	5A
DR6(9)-AA20	20A	10mA	20A: 5A	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.2F.S
DR6(9)-AA100	100A	0.1A	100A: 5A	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.2F.S
DR6(9)-AA200	200A	0.1A	200A: 5A	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.2F.S
DR6(9)-AA1000	1000A	1A	1000A: 5A	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.2F.S
DR6(9)-AA2000	2000A	1A	2000A: 5A	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.2F.S

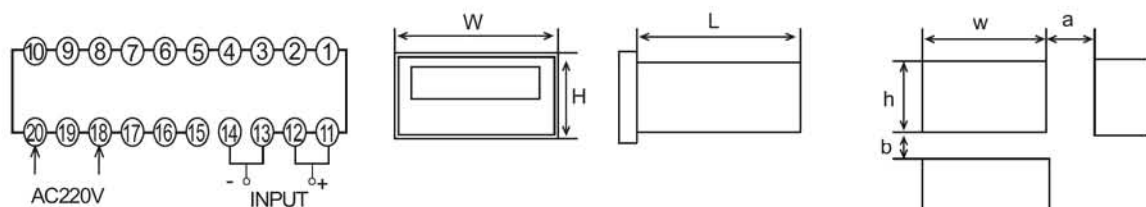
### [3] DC digital voltmeter

Model and specification	Measurement range	Resolution	Change in initial inductor	Measurement accuracy	Maximum allowable input	Input impedance
DR6(9)-DV0.2	200mV	0.1mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	10V	5M $\Omega$
DR6(9)-DV2	2V	1mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	100V	5M $\Omega$
DR6(9)-DV20	20V	10mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	500V	5M $\Omega$
DR6(9)-DV200	200V	100mV	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	750V	5M $\Omega$
DR6(9)-DV500	500V	1V	Direct input	$\pm 1\% \text{F.S} \pm 2 \text{Digit}$	800V	5M $\Omega$

### [4] DC digital ampere meter

Model and specification	Measurement range	Resolution	Change in initial inductor	Measurement accuracy	Maximum allowable input	Input impedance
DR6(9)-DA0.0002	0.2mA	0.1 $\mu$ A	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	10mA	1K $\Omega$
DR6(9)-DA0.002	2mA	1 $\mu$ A	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	100mA	100 $\Omega$
DR6(9)-DA0.02	20mA	10 $\mu$ A	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	500mA	10 $\Omega$
DR6(9)-DA0.2	200mA	100 $\mu$ A	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1A	1 $\Omega$
DR6(9)-DA2	2A	1mA	Direct input	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	5A	0.1 $\Omega$
DR6(9)-DA20	20A	10mA	20A: 75mV	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.5F.S	5M $\Omega$
DR6(9)-DA100	100A	100mA	100A: 75mV	$\pm 1\% \text{F.S} \pm 2 \text{Digit}$	1.5F.S	5M $\Omega$
DR6(9)-DA200	200A	100mA	200A: 75mV	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.5F.S	5M $\Omega$
DR6(9)-DA1000	1000A	1A	1000A: 75mV	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.5F.S	5M $\Omega$
DR6(9)-DA2000	2000A	1A	2000A: 75mV	$\pm 0.5\% \text{F.S} \pm 2 \text{Digit}$	1.5F.S	5M $\Omega$

## 5. Meter wiring and panel cutout

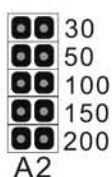
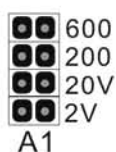


Note: There will be no notice of any change in the wiring of instruments. Please follow the circuitry on the actual meters for wiring.

Model	Panel size H×W	Shell size h×w×L	Boring dimension a×b
DR6	48×96	45×91×90	50×25
DR9	96×96	91×91×90	50×50

## 6.Slip stitch inside of Meter and changing illustration

◆ There are total three groups , as following :



( Voltage input range to select slip stitch ) ( Ampere input range to select slip stitch ) ( Decimal input range to select slip stitch )

◆ Different specifications shows different position of slip stitch, as following :

### [1]AC digital voltmeter

Model and specification	Measurement range	A1 Slip stitch	A2 Slip stitch	A3 Slip stitch
DR6(9)-AV2	2V	2V	200	1.999
DR6(9)-AV20	20V	20V	200	19.99
DR6(9)-AV200	200V	200	200	199.9
DR6(9)-AV600	600V	600	200	1999
DR6(9)-AV10K	10KV	200	200	19.99

### [2]AC digital ampere meter

Model and specification	Measurement range	A1 Slip stitch	A2 Slip stitch	A3 Slip stitch
DR6(9)-AA0.2	200mA	2V	200	199.9
DR6(9)-AA2	2A	2V	200	1.999
DR6(9)-AA20	20A	2V	200	19.99
DR6(9)-AA100	100A	2V	100	199.9
DR6(9)-AA200	200A	2V	200	199.9
DR6(9)-AA1000	1000A	2V	100	1999
DR6(9)-AA2000	2000A	2V	200	1999

### [3]DC digital voltmeter

Model and specification	Measurement range	A1 Slip stitch	A2 Slip stitch	A3 Slip stitch
DR6(9)-DV2	2V	2V	200	1.999
DR6(9)-DV20	20V	20V	200	19.99
DR6(9)-DV200	200V	200	200	199.9
DR6(9)-DV500	500V	600	200	1999

### [4]DC digital ampere meter

Model and specification	Measurement range	A1 Slip stitch	A2 Slip stitch	A3 Slip stitch
DR6(9)-DA0.0002	0.2mA	2V	200	199.9
DR6(9)-DA0.002	2mA	2V	200	1.999
DR6(9)-DA0.02	20mA	2V	200	19.99
DR6(9)-DA0.2	200mA	2V	200	199.9
DR6(9)-DA2	2A	2V	200	1.999

◆ Note:

- 1, Make differences between Ampere meter and Voltage meter during operation . they can't make the same functions
- 2, there is measurement error exists after changing meter, but you can avoid it to adjust ZR as zero; FS as full scale .
- 3, please avoid to change meter but for special technology man or some special status .