AOB18 series digital display voltmeter manual

Chapter 1.General Introduction

AOB184U, AOB185U series digital display voltmeter are a sort of economic digital instruments, which are mainly used in the real-time measurement and indication on AC or DC voltage of electric wiring. It can assort with all kinds of electrical quantity and non electrical quantity transmitter with linearity analog signal output and indicate the electrical quantity or non-electrical quantity value in the primary circuit. With features of high precision, good stability, direct reading, strong anti-interference ability, it can be used extensively in all voltage classes of substation of city and countryside, power station, transformation and distribution room of public institution/enterprise units, and many fields of intelligent building/subdistrict, metallurgy, petrochemical, airport, railway, port, hospital, school, municipal, etc. It is an idea upgraded product of original dial instrument.

Chapter 2. Type and Designation

AOB18□□-□

- Instrument shape selection: 1: 16 rectangular shape , 2: 42 square shape, 3: 6 square shape, 4: 46 rectangular shape,5: 96x48 rectangular shape,7: 72x72 square shape, 8:48x48 square shape,9: 96x96 square shape
- Instrument type selection: U represents Voltmeter
- Signal input mode selection: 4: single-phase AC signal input 5: DC signal input
- Product code of economic mounted digital voltmeter series

Chapter 3. Technical Parameters

3.1 Measuring range

3.1.1 AC Voltmeter

direct measurement: AC600V

accessory device: AC1~1999kV

(Any valve/100V instrument transformer additional)

3.1.2 DC Voltmeter

direct measurement: DC0~600V

3.2 accuracy rating: ± 0.5%FS ± 2 digits

3.3 Sampling rate: about 3 times/sec.

3.4 Display Mode: display 3 1/2 bits LED nixietube

3.5 Resolution: last figure one digit

3.6 Auxiliary power supply: AC110V ± 10%, AC220V ± 10%, AC380V ± 10%

3.7 Auxiliary supply consumption: < 3VA

3.8 Overflow indication: The top digit displays 1 or -1 and other digits are hiding

3.9 DC meter polar indication: Negative signal displays -1automatically and Positive signal doesn't display

3.10 Operational environment: places free of gas corruption with temperature of -10~50℃,and relative humidity≤85%RH

Chapter 4. Setting and Wiring

4.1Hole cutout dimension

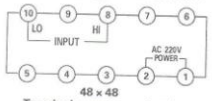
Unit: mm

Instrument shape	Panel dimension		Case dimension			Hole cutout dimension	
	W	H	W	H	D	W	H
16 rectangular shape	160	80	150	75	100	152	76
42 square shape	120	120	110	110	80	112	112
6 square shape	80	80	75	75	80	76	76
46 rectangular shape	120	60	115	55	80	116	56
96x48 rectangular shape	96	48	90	44	100	92	45
72x72 square shape	72	72	67	67	80	68	68
48x48 square shape	48	48	44	44	100	45	45
96x96 square shape	96	96	91	91	80	92	92

4.2 Method of installation

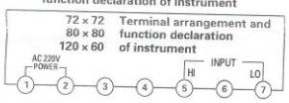
Choose the corresponding hole cutout dimension according to the instrument dimension from the table above, Open a hole in the installation screen, embed instruments into the hole, put the two clamping pieces into the clamping groove, push and tighten it by hand.

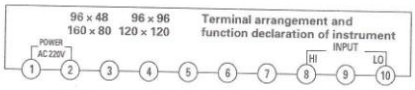
4.3 Description of Wiring and terminal

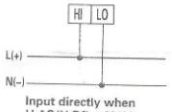


48 × 48

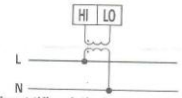
Terminal arrangement and function declaration of instrument







Input directly when U AC/U DC ≤600V



Input tHlough the instrument transformer when U AC > 600V

Chapter 5 Usage and Attention

5.1 Please confirm if the auxiliary power supply, input signal and wiring is correct before applying the power.

5.2 The instrument must be preheated for 15 minutes to guarantee the precision of measurement.

5.3 The instrument should not be rapped, knocked and vibrated excessively and the using environment should meet the technical requirements.

Chapter 6 Packing and Storage

The instrument and accessories with packing should keep storage conditions cool and dry and free of wet and gas corruption with temperature not more than 70℃ and not less than -40℃ , and relative humidity≤85%