Analog Indicator Model TDW-4B

I-01423

We thank you for your purchase of this product. Please take care that this instruction manual is certainly delivered to the person in charge of operating it. For safety use of this product, please observe the following caution and also read the instructions to follow before the initial operation for proper operation of this indicator.

▲ CAUTION		
 To prevent electric shock, observe the following cautions: Never make terminal connections with active lines. Ensure firm and tight connections to the terminals. Do not touch terminals while the instrument is powered on. 	 To avoid failure or malfunction of the instrument, do not use the instruments in such places where: ♦ exposed to rain, water drops or direct sunlight. ♦ high temperature or humidity, much dust or corrosive gas. ♦ affected by external noise, radio waves or static electricity. ♦ where there is constant vibration shock. 	

■ Check at Delivery

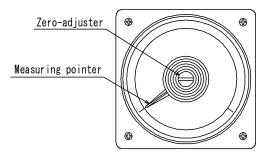
When the $T\Box W$ -4B is delivered to you, please check that its specifications conform to your requirement and that there is no damage in transit. This instrument is carefully inspected before delivery from factory under our strict quality control program, but if you find any defect or inconvenience, please inform us of the model name and serial number of the product.

■ Cautions for Use

① This product is a precision instrument, so please take utmost care for its operation, installation or any other handling.

- 2 In case of fear that this indicator suffers the surge voltage, ensure to ground one side of measuring input terminals.
- ③ Use this product within the range of its specifications and rates.

■ Name of Parts

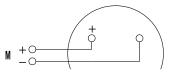


■ Connections

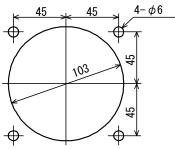
Measuring input terminals of this instrument are M5 screw. Make correct and firm connections with crimp type terminal or like. Optimum fastening torque of the screws: $1.2 \sim 1.3$ N·m.

• Measuring Input Terminals

① DC voltmeter / DC ammeter / Receiving meter Connect the measuring input with correct polarity, with an accessory if it is designated.



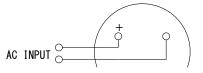
■ Panel Cut-Out Dimension



Installation

Insert the instrument from the front and fasten the fixing bolts provided at four corners on the back, with the attached nuts. Optimum fastening torque of the nuts: $1.59 \sim 2.16$ N·m.

② AC voltmeter / AC ammeter Connect the measuring input. with an accessory if it is designated.



Operation

① Confirm the rated input and that the connection of the terminals are correctly made.

2 Before starting the measurement, confirm that the pointer indicates zero position.

(When the rated input is 4~20mADC or 1~5VDC, zero corresponds to 4mADC or 1VDC which may be input to the measuring input terminals by standard voltage generator or else.)

If there is deviation from zero, adjust it to 0 turning a zero-adjuster provided on the front of the instrument. **Note**)

When the input impedance at the input rating $DC1 \sim 5V$ with the specification of 7331 accessory having more than 1 M Ω is inserted the auxiliary power with opened condition of input terminal of 7331, the measuring pointer indicates more than the upper limit of the scale.

Contact Information	
Name : Tsuruga Electric Corporation	
5 1	
Address : Taiyo Seimei Osakaminami Building 5F	
1-10-6, Abikohigashi, Sumiyoshi-ku, Osaka, Japan, 558-0013	
E-mail : ft.info@tsuruga.co.jp	

Analog Indicator Model TDW-25,TDW-2C

I-01832

We thank you for your purchase of this product. Please take care that this instruction manual is certainly delivered to the person in charge of operating it. For safety use of this product, please observe the following caution and also read the instructions to follow before the initial operation for proper operation of this transducer.

▲ CAUTION		
 To prevent electric shock, observe the following cautions: Never make terminal connections with active lines. Ensure firm and tight connections to the terminals. Do not touch terminals while the instrument is powered on. 	 To avoid failure or malfunction of the instrument, do not use the instruments in such places where: ♦ exposed to rain, water drops or direct sunlight. ♦ high temperature or humidity, much dust or corrosive gas. ♦ affected by external noise, radio waves or static electricity. ♦ where there is constant vibration shock. 	

■ Check at Delivery

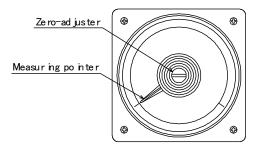
When the wide angle type analog indicator is delivered to you, please check that its specifications conform to your requirement and that there is no damage in transit. This instrument is carefully inspected before delivery from factory under our strict quality control program, but if you find any defect or inconvenience, please inform us of the model name and serial number of the product.

■ Cautions for Use

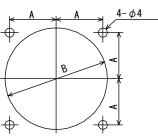
① This product is a precision instrument, so please take utmost care for its operation, installation or any other handling.

- ② In case of fear that this indicator suffers the surge voltage, ensure to ground one side of measuring input terminals.
- ③ Use this product within the range of its specifications and rates.

■ Name of Parts



Panel Cut-Out Dimension



Please see the table below about the size of A and B.

SIZE MODEL	А	В
W-25	32	67
W-2C	24	54

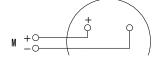
Unit:mm

■ Connections

Measuring input terminals of this instrument are M4 screw. Make correct and firm connections with crimp type terminal or like. Optimum fastening torque of the screws: $0.74 \sim 0.88$ N · m.

• Measuring Input Terminals

① DC voltmeter / DC ammeter / Receiving meter Connect the measuring input with correct polarity, with an accessory if it is designated.

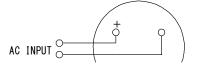


Installation

Insert the instrument from the front and fasten the fixing bolts provided at four corners on the back, with the attached nuts.

Optimum fastening torque of the nuts: $0.36 \sim 0.48$ N · m.

② AC voltmeter / AC ammeter Connect the measuring input. with an accessory if it is designated.



Operation

① Confirm the rated input and that the connection of the terminals are correctly made.

2 Before starting the measurement, confirm that the pointer indicates zero position.

(When the rated input is 4~20mADC or 1~5VDC, zero corresponds to 4mADC or 1VDC which may be input to the measuring input terminals by standard voltage generator or else.)

If there is deviation from zero, adjust it to 0 turning a zero-adjuster provided on the front of the instrument. **Note**)

When the input impedance at the input rating DC1 \sim 5V with the specification of 7331 accessory having more than 1 M Ω is inserted the auxiliary power with opened condition of input terminal of 7331, the measuring pointer indicates more than the upper limit of the scale.

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