

# IEW Series Length Measuring Meter Wheel Instructions

## I. Introduction

The IEW series length measuring meter wheels produced by our company are widely used as precision length measuring devices on various transmission equipment in industries such as plastics, wires, and papermaking. Meter wheels are available in three models: IEW-1 (Meter level), IEW-2 (Decimeter level), IEW-3 (centimeter level), IEW-4 (millimeter level). The wheel of the meter wheel is made of a special wear-resistant and non-slip rubber composite material and an aluminum alloy wheel frame. Little wear and tear after long-term use, Ensure metering accuracy: The internal circuit adopts a unique design method, Strong anti-interference ability: Therefore, the whole machine has significant advantages such as stable and reliable performance and low failure rate.

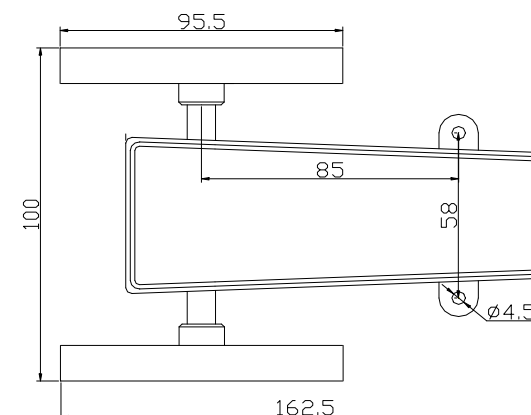
## II. Technical Parameters

Model	IEW-□1/2/3/4	Weight	≈650g
Min. measurement unit	1 - meter    2 - dm 3 - cm       4 - mm	Response speed	≤1us
Output control	NPN open collector output	Absolute peak impedance	≥100MΩ
Output phase	A, B	Current consumption	≤80mA (no load)
Inflow current	≤30mA	Withstand voltage	750VAC (one minute)
Residual voltage	≤0.4VDC	Vibration resistance	10~55Hz (one minute)
Output current	≤10mA	Shock resistance	≤75G
Output voltage	≥5VDC	Operating temperature	-10~70℃
Max. response frequency	180kHz	Operating humidity	35~85%RH
Starting torque	Depends on the wheel friction coefficient	Connection	rear wire lead type
Supply voltage	10~30VDC	Wire specifications	Φ5mm, 4 cores, shielded wire
Protection class	IP50		

## III. Installation Method And Dimensions

As shown in the figure:

Fix the meter wheel on the mounting bracket according to the dimensions shown in the figure below, and place the wheel disc vertically on the detection stick and the vertical center line of the wheel disc should be consistent with the vertical center line of the detection stick. Note that the detection stick and the linear speed should be consistent with the linear speed of the material. If they are inconsistent, reinstall them.

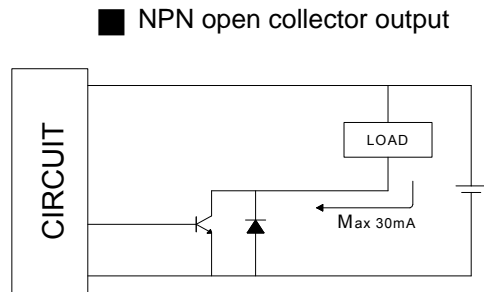


## IV. Wiring Diagram

Color	Function	Color	Function	Color	Function
white	OUTA	red	+V	blue	shielded wire
green	OUTB	black	GND		

Notice: The meter wheel output is NPN output, and comes with a 3-meter signal line shielded wire. When using, try to shorten the length between the meter wheel and the counter: if the length of the lead must be extended, a 4-core shielded wire should be used.

## V . Internal Wiring Diagram



## VI . Minimum Measurement Unit And Roller Circumference

Min. Measurement Unit	Roller circumference	Pulse number/1 circle	Reduction ratio
1mm	300mm	300	1: 1
1cm	300mm	30	10: 1
1dm	300mm	3	100: 1
1m	300mm	0.3	1000: 1

## VII. Working Environment Requirements

The working site of the meter wheel should be free of too much dust. The input signal line and other strong electric wires are not allowed to be bundled together to avoid interference and cause errors in the meter length. The output signal line is a shielded line, and the shielding layer must be reliably grounded. The linear speed between the wheel of the meter wheel and the object to be detected can be kept consistent. Do not press the wheel and the object to be detected too tightly to avoid damaging the wheel and the object to be detected.

## VIII. Instructions

IEW-1 is a meter-level measuring machine, that is, every time the material travels one meter, the counting wheel sends out one NPN signal, and the same applies to other models. When choosing, please pay attention to the measurement level you need and choose the appropriate model.