# NTI-210DL-I4 Current type two-axis inclinometer +/-10°

## General description

**NTI-210DL-I4** is researched and produced by Z Tech, it is a high accuracy and high stability current type two-axis inclinometer. The measuring range is ±10 degree, output standard 4～20mA analog current. It has anti-jamming characteristic, adapt to long distance signal transmission.

## Features:

Standard three wire 4-20mA current output
High accuracy；
High performance-price ratio
Protection level: IP68 (the depth of 4meters under water, for 4 hours)

## Applications:

Engineering mechanism
Angle measuring, level adjust, zero adjust
Security control, monitoring, alarm
Machine arm, dam, construction bridge angle measuring
Aim control, bending control
Original position control, tilt recorder

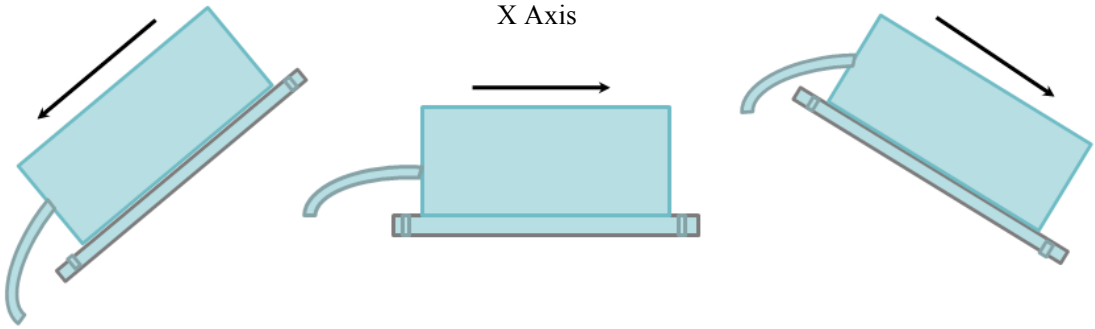
## Technical data：

| Item | Parameter | Unit | Remark |
|---|---|---|---|
| Measuring range | | Degree | Two-axis |
| Resolution | 0.005 | Degree | |
| Accuracy | 0.1 | Degree | |
| Sensitivity | 0.8 | mA/degree | |
| Current output accuracy | 0.05 | mA | |
| Zero temperature drift | ±0.6 | Degree | -40 ~ +85 C |
| Operating voltage | 10.5～32 | V | |
| Static current | ＜50 | mA | |
| Max load resistance | 500 | Ω | |
| Zero output current (Offset) | 12 | mA | |
| Max output current | ＜25 | mA | |
| Operating temperature | -40 ～ +85 | C | |
| Store temperature | -45 ～ 125 | C | |
| Case size | 72*72*45 | mm | |
| Output wire length | 5 | m | |

## Tilt angle and output current relationship:

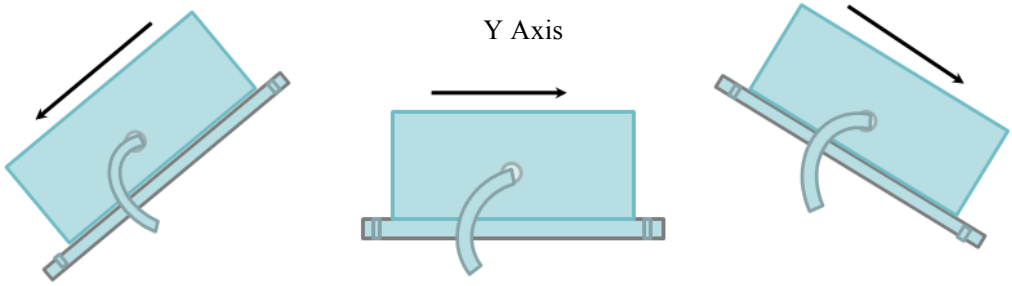
**Angle=( Iout - Offset)/Sensitivity=( Iout - 12mA)/0.8**

X Axis



-10° （4mA） 0° （12mA） 10° （20mA）

Y Axis

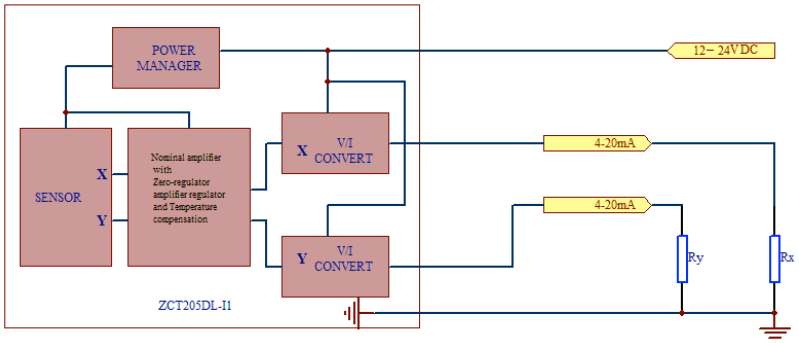


-10° （4mA） 0° （12mA） 10° （20mA）

**Connection definition：**

Red : Power supply Black：GND

Yellow：X-axis current output Blue：Y-axis current output



**Note:**

(1) Load resistance and supply voltage need to meet the following formula:
Load resistance≤（supply voltage－6V－voltage drop of output wire）/max output current

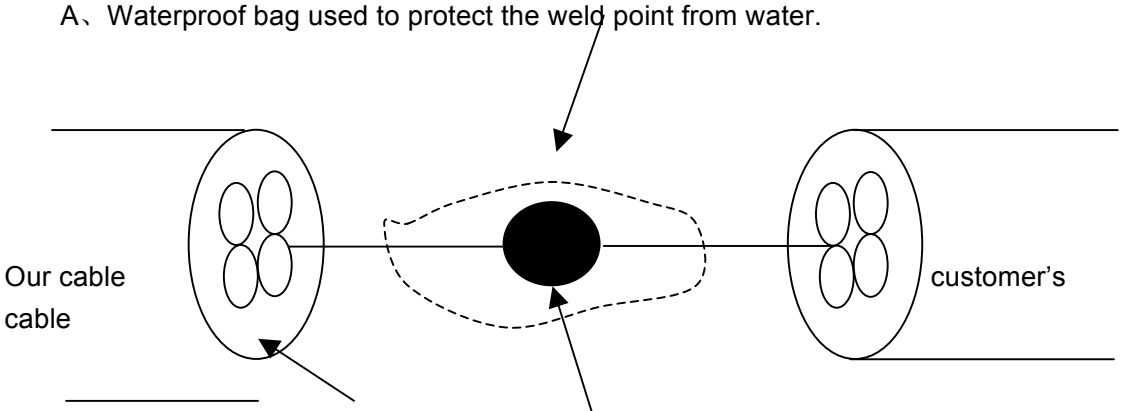
Eg：Supply voltage 12V，output wire 100m，the voltage drop of $2*0.14mm^2$ is 0.6V, the max output current is 20mA. Load resistance≤（12－6－0.6）/0.02

So if supply power is 12V, Load resistance≤（12－6－0.6）/0.02
load resistance should less than or equal to 270Ω.

(2)Although our products have done high-level professional waterproofing treatment at all aspects, customers still need to attend the waterproofing treatment of the cable joint in use.

**Incorrect handling：**

A、Waterproof bag used to protect the weld point from water.

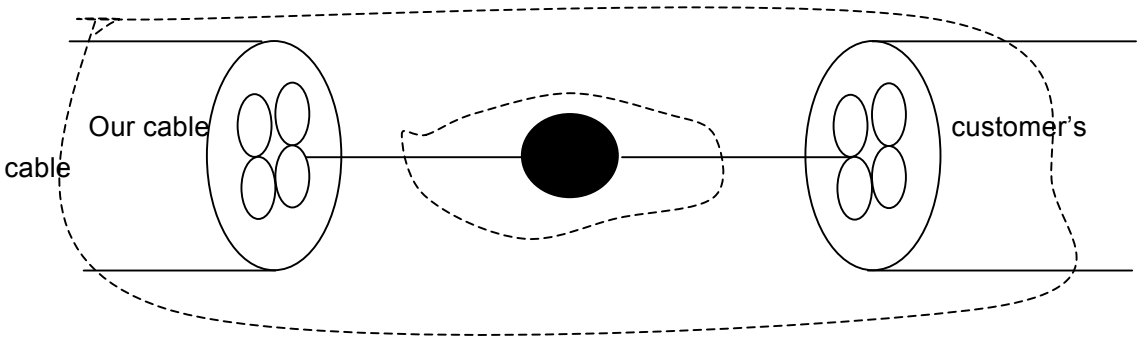



**Remarks：**

The above wrong connection is that the waterproof casing or tube (A ) in customer's actual installation protection scope is just the cable inner core connection (welding) (C), water can infiltrate to the system between the outer ends of the cable and the inner core cable ends.

**Correct handling:**

Except for keeping the former inner junction waterproof bag, add a large layer of waterproof casing outside the cables, then both sides of the cable ends will be wrapped together into this casing, Please see details as below:

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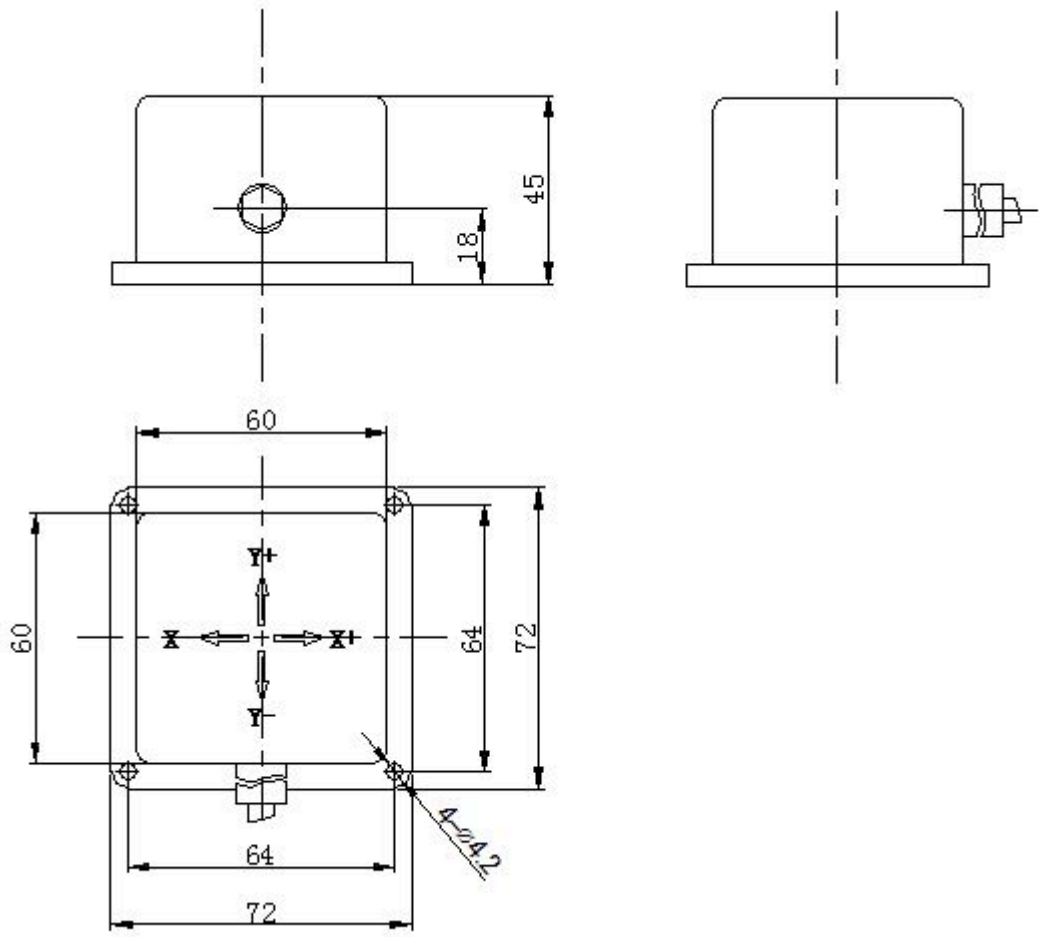
**Installation size:**




**Order information： part No： NTI-210DL-I4**

**The specification subject to change without notice!**