

# LT86 Series Multi Axis Joystick

## Product Features

- Heavy-duty industrial handle, supporting mining machinery and equipment;
- Non-contact Hall sensor detection mode;
- Spring return operation mode;
- There are a variety of different types of handle upper end for choice;
- Optional CAN bus output.

## Application

This series of products are mainly used with cranes, loaders, forklifts, excavators, harvesters and so on.

## Technical Information

### Electrical data

| Hall                            |                           |
|---------------------------------|---------------------------|
| Supply voltage                  | 5 ± 0.5Vdc                |
| Supply current                  | <11 mA (Each hall sensor) |
| Limit allowed overvoltage       | 20Vdc                     |
| Reverse limit allowable voltage | -10Vdc                    |
| Linear error of output voltage  | ±0.2Vdc                   |
| CANBUS                          |                           |
| Supply voltage                  | 9~36Vdc                   |
| CAN                             | CAN2.0B                   |
| Agreement                       | J1939                     |
| Connection port                 | Customization             |

### Mechanical parameter

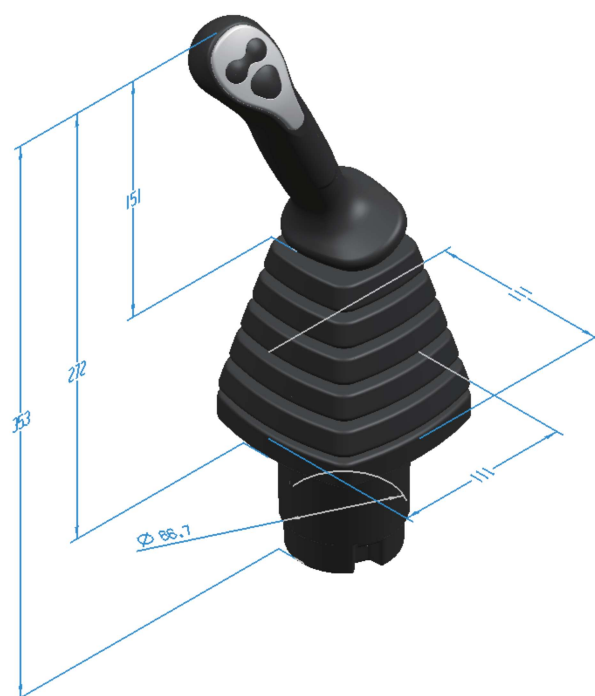
|                         |                           |
|-------------------------|---------------------------|
| Shaking angle           | ±23°before and after ±18° |
| Operating mode          | Automatic spring reset    |
| Starting force          | 4N                        |
| Maximum operating force | 11N                       |
| Limiting force          | >300N                     |
| service life            | >2M                       |
| Weight                  | about 1250g (no handle)   |

### Environmental parameter

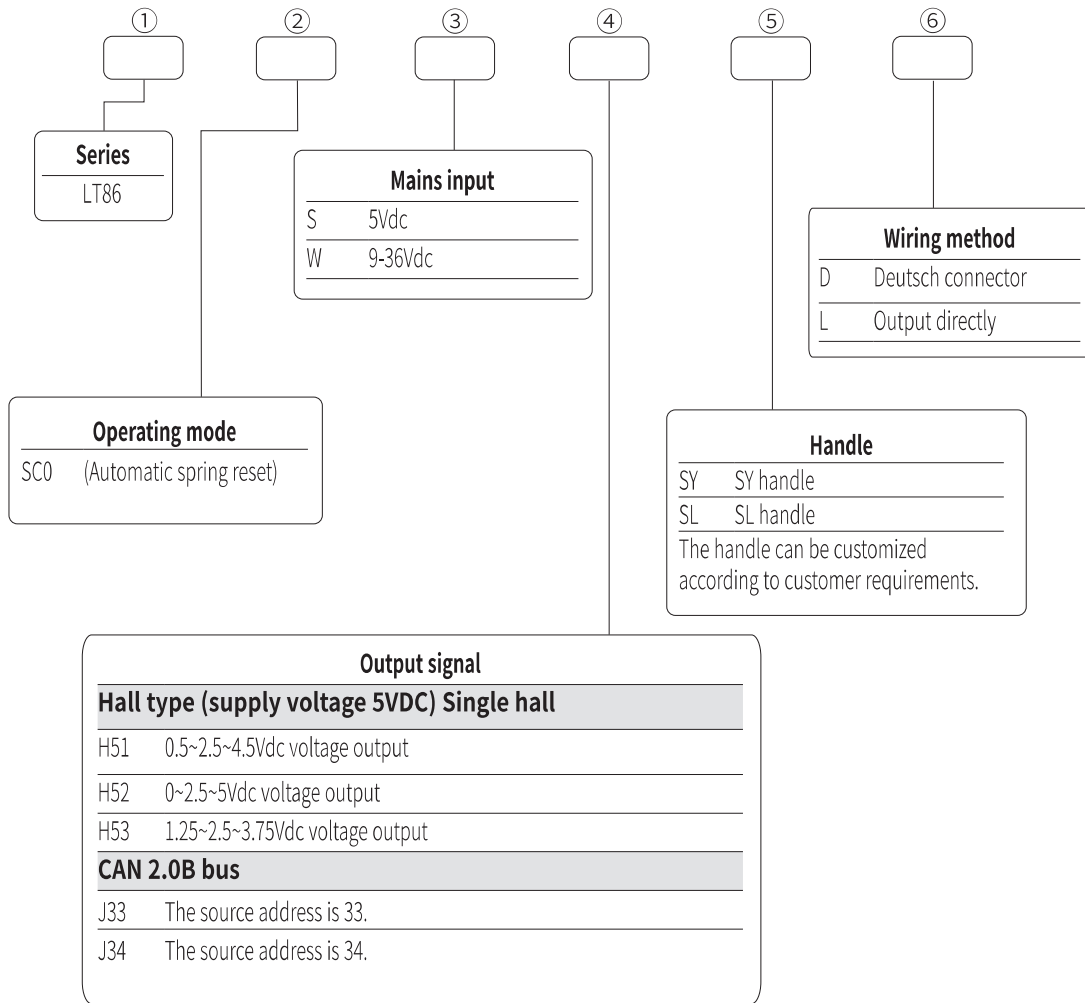
|                       |                             |
|-----------------------|-----------------------------|
| Operating temperature | -30C~+70°C                  |
| Storage temperature   | -40°C~+85°C                 |
| Level of protection   | IP65 (Above mounting panel) |



## Dimensions



## Product Configuration



## Electrical Connections

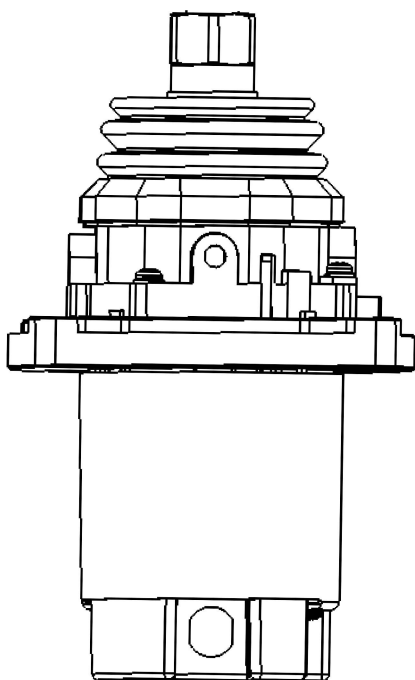
### CAN bus

| Pin | Outgoing definition      |
|-----|--------------------------|
| 1   | Power supply 9-36Vdc     |
| 2   | The supply voltage is 0V |
| 3   | HSCAN                    |
| 4   | LSCAN                    |
| 5   | CAN shield               |
| 6   | N/A                      |

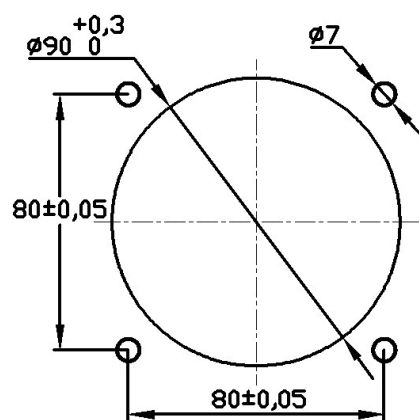
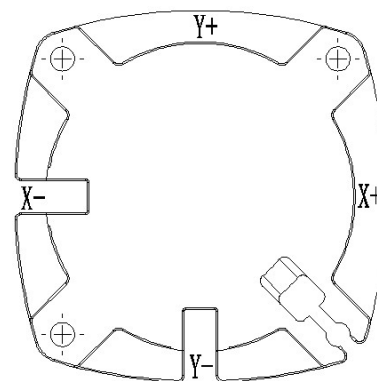
### Hall sensor output definition

| Line color | Function                                |
|------------|-----------------------------------------|
| Red        | 5Vdc mains input                        |
| Black      | GND                                     |
| Yellow     | Hall output forward and backward        |
| White      | Hall output in left and right direction |

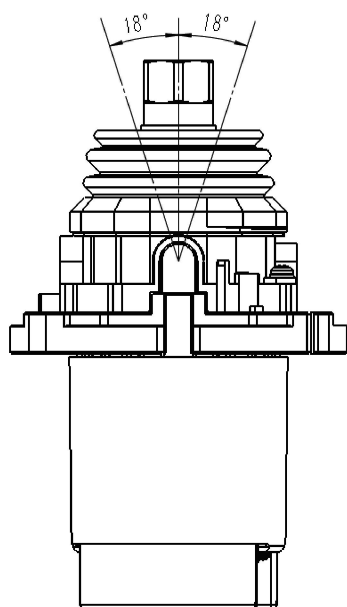
## Product Installation



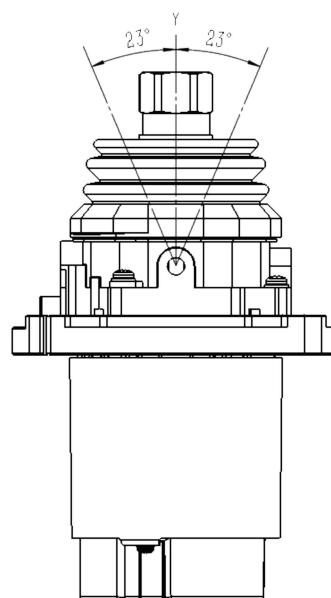
Customer installation diagram



Outline and hole size drawing



Side-to-side shaking angle



Angle of rocking back and forth