

**ZETA®Low-Power Wide Area Networks** 

**ZETA 4-20mA Transceiver** 

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# 1. Product Description

ZETA  $4\sim20$ mA Transceiver, built-in ZETA module can be used to connect  $4\sim20$ mA output signal sensors, such as water level, water pressure, current, etc.. Report readings periodically, and can configure thresholds for flexible alarms.

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# 2. Applications

- Water level, water pressure, etc.
- $4 \sim 20$ mA sensor

## 3. Appearance



### 4. Features

- ✓ Wireless transmission
- ✓ Easy to install, high sensitivity
- ✓ Reliable detection
- ✓ Real-time transmission

# 5. Product parameters

Product No.	D4ACZT92	
Wireless Features	Transmission protocol	ZETA
	Frequency band	920-925 MHz
	Output power	$20\pm3~\text{mW}$
Electrical Features	Power supply	100~240V AC
	Power frequency	50~60Hz
	Stand-by current	≤ 10 µA
	Working current	≤ 70 mA
Physical Features	Size	36*104*59 mm
	Enclosure material	ABS
	Antenna	Monopole antenna
Sensor Characteristics	Interface	4~20mA
	Precision	0.01mA
Working Environment	Operating temperature	-20℃~+75℃
	Storage temperature	-30℃~+85℃

# 6. Packing List

ZETA 4-20mA Transceiver	1
Antenna	1

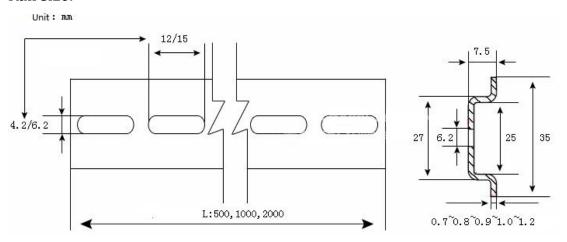
### 7. Installation

#### 7.1. Screw

### 7.1.1. Auxiliary material

No.	Materials	Quantity
1	C45 GB steel rail	1
2	Screws	1 set

#### Rail size:



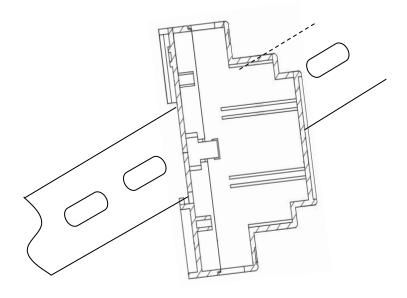
### 7.1.2.Installation instructions

#### • Instal steel rail

Before installation, clean the burrs on the mounting surface of the rail and the dirt on the wall. Attach the guide rail to the mounting surface and confirm the bolt hole position, and tighten the bolts one by one.

#### • Install sensor device

Snap the sensor onto the rail and push the lower snap to engage the rail as shown:



### Wiring

Connect according to the label on the sensor label, as shown in the figure:



NC : Reserved, no wiring required

L/N : Connected to the mains, AC 100~240V

Ain : 4~20mA analog input

GND : Common ground

12V : +12V DC output, can supply power to external sensor

### 8. Use of Device

### 8.1. Indicator Description

- Red: power indicator
  Lights up when power is normal
- Yellow: module status indicator
- Registration: Lights up 2ms every 2s until the registration is successful. When the device goes to sleep, the light is off.
- ➤ Successfully registered: Lights up 2ms every 500ms, and lasts for 5s.
- ➤ Working normally: Lights up 2ms every 1 minute
- Green: sensor operation indicator
- Lights up 1 second for every time the data is collected.
- Alarm occurred: 500ms on, 500ms off, until the alarm is cleared.

### 8.2. Steps for use

- Connect the antenna and place the device within ZETA network coverage area;
- Power on, wait for the device to connect to network
- Configure alarm thresholds and reporting periods based on requirements.
- Daily maintenance and data viewing

### 8.3. Support function

- Version number: Report the software version number of the sensor only once after power-on.
- Status report: Report status data periodically according to the setting.
- Set/Query the heartbeat reporting period: can set or query the data reporting cycle (Range: 1~65535 min, default: 12\*60min)
- Set/Query the reporting period of the alarm: Set or query the currently set alarm reporting period. (Range: 0-255 minutes, default value: 0, 0 means that the alarm is only reported once, without periodic reporting.)

- Set/query alarm threshold: upper alarm threshold and lower alarm threshold. Once the detection value exceeds the set alarm threshold, the device will immediately report an alarm. (Range 400~2000, unit 0.01mA, if the value is 0xFF 0xFF, it means there is no such threshold. Note that the lower threshold should be lower than the upper threshold when setting)
- Set/Query the alarm threshold: To avoid repeated alarms caused by the fluctuation of the device's collection value within the alarm threshold, the default value is generally used, and there is no need to set it.
- Set/query alarm enable: Enable on means that the threshold is exceeded and need to report an alarm status, and enable off means that the threshold is exceeded without requiring an alarm.
- Set/query collection period: the period for the device to collect sensor information (range: 0-65535 seconds, when the value is 0, it means real-time collection).
- Set/query initialization calibration: calibrate the current detection value (range: 400~2000, unit 0.01mA). After the device receives the information, it starts calibration and feeds back the current calibration value.
- Query device status: query the current status of the device, including the current collected value and alarm enable information.
- Query version number: You can query the software version number of the current sensor.

### 9. Common faults and handling

- Ensure ZETA signal coverage
- Ensure that the device is powered on, and the ZETA network device management platform can observe that the ZETA module is online
- Check the battery usage of the device. When the battery is low, replace the battery in time.

### **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help.

This device complies with FCC PART15 Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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