



# **IOTZONE<sup>®</sup>**

## **Q16 Communication Protocol**

Zhenming Electronic Technology Co., Ltd





## Q16 Communication Protocol

After the network parameters are set, you need to restart or power on again.

Support TCP, UDP, MQTT

TCP port 1234

UDP port 9128

The subscription number of MQTT receiving control instructions is sn+ctr (E.g., QFf3xxxxxxxx60d7ctr), and the subscription number that returns the status is sn+state (E.g., QFf3xxxxxxxx60d7ctr)

### 1. Query the device status

Send state=?

return

```
{
  "cmd": "state",
  "output": "0000000000000000",
  "timer_en": 1,
  "ts": 32,
  "runtime": 32,
  "sn": "QFf3xxxxxxxx60d7"
}
```

### 2. Relay control

Send setter = 1111111111111111

1. Indicates opening the relay

0 means to turn off the relay

2 means touch

x means that the state does not change

return

```
{
  "cmd": "setr",
  "output": "1111111111111111",
  "timer_en": 1,
  "ts": 68,
  "runtime": 68,
  "sn": "QFf3xxxxxxxx60d7"
}
```

### 3. Set the relay to save

Send relaysave=111111111111

1 means to open the relay to save



0 means to turn off the relay save

Return:

```
{
  "cmd": "relay",
  "relaystatus": "1111111111111111",
  "relaysave": "1111111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "jgtime": 0,
  "ts": 112,
  "runtime": 112,
  "sn": "QFf3xxxxxxxx60d7"
}
```

#### 4. Set the timing interval

Send jgtime=10 The timing interval is 1 second

return

```
{
  "cmd": "relay",
  "relaystatus": "1111111111111111",
  "relaysave": "1111111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "jgtime": 10,
  "ts": 427,
  "runtime": 427,
  "sn": "QFf3xxxxxxxx60d7"
}
```

#### 5. Query relay parameter settings

Send outset=?

return

```
{
  "cmd": "relay",
  "relaystatus": "1111111111111111",
  "relaysave": "1111111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "jgtime": 0,
  "ts": 185,
  "runtime": 185,
  "sn": "QFf3xxxxxxxx60d7"
}
```



## 6. Set the touch time

Send pulsetm1=100, and set the touch time of relay 1 to 10 seconds

return

```
{
  "cmd": "relay",
  "relaystatus": "0000000000000000",
  "relaysave": "0000000000000000",
  "ptime": [100, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "jgtime": 0,
  "ts": 200,
  "runtime": 200,
  "sn": "QFf3xxxxxxxx60d7"
}
```

## 7. Set the time zone

Send timezone=8

return

```
{
  "cmd": "ntpts",
  "ntpip": "139.199.215.251",
  "ntpuser": "0.0.0.0",
  "timezone": 8,
  "utc": "0:0:0-0",
  "ts": 116,
  "runtime": 116,
  "sn": "QFf3xxxxxxxx60d7"
}
```

## 8. Set the escalation interval

The minimum interval is 30s

Send interval=100 and set the interval time to 100 seconds

return

```
{
  "cmd": "cloud",
  "postip": "123.57.12.252",
  "postpt": "9128",
  "tcpserverpt": "1234",
  "udpserverpt": "9128",
  "mqttserver": "180.76.114.10",
  "mqttten": 1,
}
```



```
"mqttport": "1883",  
"interval": "100",  
"ts": 263,  
"runtime": 263,  
"sn": "QFf3xxxxxxxx60d7"  
}
```

### 9. Restart your device

Send restart