



**IOTZONE®**

# QL12通信协议

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## QL12 通信协议

网络参数设置后需要重启或者重新上电。

支持MQTT

MQTT接收控制指令的订阅号是sn+ctr(如: LC62xxxxxxxx1583ctr), 返回状态的订阅号是sn+state(如: LC62xxxxxxxx1583state)

### 1. 查询设备状态

发送state=?

返回

```
{
  "cmd": "state",
  "output": "0000000000000",
  "input": "0000000000000",
  "timer_en": 1,
  "ts": 117,
  "runtime": 117,
  "sn": "LC62xxxxxxxx1583"
}
```

### 2. 继电器控制

发送setr=111111111111

1表示打开继电器

0表示关闭继电器

2表示点触

x表示状态不变

返回

```
{
  "cmd": "setr",
  "output": "111111111111",
  "input": "0000000000000",
  "timer_en": 1,
  "ts": 184,
  "runtime": 185,
  "sn": "LC62xxxxxxxx1583"
}
```



### 3. 设置继电器保存

发送save=1

1表示开启继电器保存

0表示关闭继电器保存

返回:

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
  "cmd": "relay"
}
```

### 4. 查询继电器参数设置

发送 relay=?

返回

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
  "cmd": "relay"
}
```

### 5. 输入类型设置

发送intype=111111111111

1表示边沿输入

0表示电平输入

返回

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
}
```



```
"cmd": "relay"
}
```

## 6. 查询输入参数设置

发送intype=?

返回

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
  "cmd": "relay"
}
```

## 7. 时序间隔设置

发送jgtime=10 时序间隔时间为1秒

返回

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
  "cmd": "relay"
}
```

## 8. 设置点触时间

发送ptime0=100, 设置继电器1的点触时间为10秒

返回

```
{
  "sn": "LC62xxxxxxxx1583",
  "intype": "111111111111",
  "iorelation": "111111111111",
  "ptime": [100, 100, 10, 10, 10, 10, 10, 10, 10, 10, 10],
  "save": 1,
  "jgtime": 10,
  "cmd": "relay"
}
```



}

## 9. 设置输入输出关系

发送 iorelation=111111111111

0关闭输入输出关联

1打开输入输出关联

返回

{

"sn": "LC62xxxxxxxx1583",

"intype": "111111111111",

"iorelation": "111111111111",

"ptime": [100, 100, 10, 10, 10, 10, 10, 10, 10, 10, 10],

"save": 1,

"jgtime": 10,

"cmd": "relay"

}

## 10. 重启设备

发送restart