

## 1. 数据推送主题: HWSSH/PRD/HWSSH/SSTSP/MES-EM/SENSOR/SAMPLE/TEST

```
{
  "header":
  {
    "client": "SGTPM20220708001", //网关 ID
    "time": "2021/1/16 10:25:31",
    "id": "SGTPM20220708001", //终端 ID 这里网关与终端是同一产品，它们的
网关 ID 和终端 ID 是相同的
    "type": "GTPM", //终端类型
    "power": "OFF", //是否掉电， OFF 代表电池没有使用，系统外电正常， ON 代表电池使用，系统外电掉电
    "out_state": "10000000" //控制外面的 1~8 路输出，状态： 1 打开，
0 没有打开
  },
  "data":
  {
    "P01": {"N": "G01", "C": "001", "V": "1", "alert": "NORMAL"}, //第 1 路 输入的状态
    "P02": {"N": "G02", "C": "002", "V": "1", "alert": "NORMAL"}, //第 2 路 输入的状态
    "P03": {"N": "G03", "C": "003", "V": "1", "alert": "NORMAL"}, //第 3 路 输入的状态
    "P04": {"N": "G04", "C": "004", "V": "1", "alert": "NORMAL"}, //第 4 路 输入的状态
    "P05": {"N": "X01", "C": "005", "V": "0.0", "alert": "NORMAL"}, //第 1 路温度
    "P06": {"N": "X02", "C": "006", "V": "0.0", "alert": "NORMAL"}, //第 2 路温度
    "P07": {"N": "X03", "C": "007", "V": "0.0", "alert": "NORMAL"}, //第 3 路温度
    "P08": {"N": "X04", "C": "008", "V": "0.0", "alert": "NORMAL"}, //第 4 路温度 温湿度传
感器中温度
    "P09": {"N": "X05", "C": "009", "V": "0.0", "alert": "NORMAL"}, //温湿度传感器中湿度
    "P10": {"N": "X06", "C": "010", "V": "0.0", "alert": "ERROR"}, //第 8 路控制输出的采
样电压值
    "P11": {"N": "X07", "C": "011", "V": "0.0", "alert": "ERROR"}, //第 8 路控制输出的采
样电流值
    "P12": {"N": "X08", "C": "012", "V": "0.0", "alert": "ERROR"} //第 5 路温度 机箱
风扇打开关闭的温度值
  }
}
```

## 2. 报警推送主题: HWSSH/PRD/HWSSH/SSTSP/MES-EM/SENSOR/ALARM/RPT

数字量报警:

```
{
  "header": {
    "client": "SGTPM20220708001",
    "time": "2022/5/28 15:49:49",
    "id": "SGTPM20220708001",
    "type": "GTPM"
  },
  "data": {
    "P": "02", "C": "002", "N": "G02",
    "monitor_type": "D",          -- 数字量
    "value": "0",
    "alarm": { "alarm1": "0", "alarm2": "N/A" },
    "alert": "ALARM1"            -- 1 报警
  }
}
```

数字量回复正常:

```
{
  "header": {
    "client": "SGTPM20220708001",
    "time": "2022/5/28 15:59:15",
    "id": "SGTPM20220708001",
    "type": "GTPM"
  },
  "data": {
    "P": "02", "C": "002", "N": "G02",
    "monitor_type": "D",
    "value": "1",
    "alarm": { "alarm1": "0", "alarm2": "N/A" },
    "alert": "NORMAL"            -- 正常
  }
}
```

模拟量报警:

```
{
  "header": {
    "client": "SGTPM20220708001",
    "time": "2022/5/28 16:5:45",
    "id": "SGTPM20220708001",
    "type": "GTPM"
  },
  "data": {
    "P": "05", "C": "005", "N": "X01",
    "monitor_type": "A",          -- 模拟量

    "value": "2.60",
    "alarm": {
      "alarm1_up": "2.00", "alarm1_down": "0.00",
      "alarm2_up": "N/A", "alarm2_down": "N/A",
      "alert": "ALARM1"
    }
  }
}
```

模拟量回复正常:

```

{"header":{
  "client":"SGTPM20220708001",
  "time":"2022/5/28 16:5:37",
  "id":"SGTPM20220708001",
  "type":"GTPM"},
"data":{
  "P":"05","C":"005","N":"X01",
  "monitor_type":"A",
  "value":"0.94",
  "alarm":{
    "alarm1_up":"2.00","alarm1_down":"0.00",
    "alarm2_up":"N/A","alarm2_down":"N/A"},
  "alert":"NORMAL"}}

```

### 3 订阅主题 : HWSSH/PRD/HWSSH/SSTSP/MES-EM/SENSOR/SETALM/RPT

数字量参数设置和成功返回数据包:

```

{"header":{
  "client":"SGTPM20220708001",
  "command":"RESET",
  "token":"406db0e3-be73-4711-becd-c73e22635a77",
  "time":"2022-05-28 13:56:12", --- 设置系统时间
  "keep-alive":"ON/OFF",
  "rate":"1"}, --- 数据定时上传周期, 单位分钟
"data":{
  "id":"SGTPM20220708001",
  "P":"01","C":"001",
  "alarm1":"1","alarm2":"N/A"}} -- 0 报警, 1 报警, N/A 未启用

```

模拟量参数设置和成功返回数据包:

```

{"header":{
  "client":"SGTPM20220708001",
  "command":"RESET",
  "token":"7d0f41e2-91d1-4c63-8d50-755ef3dc9024",
  "time":"2022-05-28 14:15:14",
  "keep-alive":"ON/OFF",
  "rate":"1"},
"data":{
  "id":"SGTPM20220708001",
  "P":"05","C":"005",
  "alarm1_up":"4.2","alarm1_down":"3.0",

```

```
"alarm2_up":"N/A","alarm2_down":"N/A"}}
```

//监控板下发设置温度数据包及监控板设置成功返回数据包

```
{
  "header": {
    "client": "SGTPM20220708001", //网关 ID
    "command": "RTU_SET",
  },
  "data": {
    "id": "SGTPM20220708001", //终端 ID 这里网关与终端是同一产品，它们的网关 ID 和终端 ID 是相同的
    "TYPE": "T", //表示温度
    "P": "01", // 终端控制点编号 01 打开风扇温度 02 打开加热棒温度(该产品没有加热棒)
    "V": "50.8" //温度值
  }
}
```

//监控板下发设置输出控制数据包及监控板设置成功返回数据包

```
{
  "header": {
    "client": "SGTPM20220708001", //网关 ID
    "command": "RTU_SET"
  },
  "data": {
    "id": "SGTPM20220708001", //终端 ID 这里网关与终端是同一产品，它们的网关 ID 和终端 ID 是相同的
    "TYPE": "IO", //表示普通 IO 输出
    "P": "01", //终端控制点编号 01~08
    "V": "ON" //打开/关闭 ON/OFF
  }
}
```

//监控板下发设置温度数据包及监控板设置成功返回数据包

```
{
  "header": {
    "client": "SGTPM20220708001", //网关 ID
    "command": "RTU_SET",
  },
  "data": {
    "id": "SGTPM20220708001", //终端 ID 这里网关与终端是同一产品，它们的网关 ID 和终端 ID 是相同的
    "TYPE": "T", //表示温度
    "P": "01", // 终端控制点编号 01 打开风扇温度 02 打开加热棒温度(该产品没有加热棒)
    "V": "50.8" //温度值
  }
}
```

//监控板下发设置输出控制数据包及监控板设置成功返回数据包

```
{
  "header": {
    "client": "SGTPM20220708001",    //网关 ID
    "command": "RTU_SET"
  },
  "data": {
    "id": "SGTPM20220708001",    //终端 ID 这里网关与终端是同一产品，它们的网关 ID 和终端 ID
    是相同的
    "TYPE": "IO",    //表示普通 IO 输出
    "P": "01",    //终端控制点编号 01~08
    "V": "ON"    //打开/关闭 ON/OFF
  }
}
```