

## SSM-P210/310/410

高性能型压力变送器/High performance pressure transmitter

- 压力量程/Range: -100kpa~0 & 0~5kpa~700bar
- 高性能芯体/High performance core
- 多种安装接口可选/Multiple Process connection optional
- 多种输出信号可选/ Multiple output signals optional
- 多种电气连接方式/Multiple electrical connections
- 高稳定性/High stability
- 高可靠性/High reliability
- 频率响应可定制/Frequency response can be customized



### 技术规格/Technique parameter

#### 产品性能/Product Performance

|                          |                                       |
|--------------------------|---------------------------------------|
| 长期漂移/Long-Term Stability | ±0.1%FS/year (不累计/Not cumulative)     |
| 精度/Accuracy              | ±0.1%FS、±0.25%FS(可选/Optional)         |
| 温度影响/Temp.Effect         | 1.5FS/100°C                           |
| 补偿温度/Comp.Temp.          | -20°C~80°C                            |
| 工作温度/Working Temp.       | -40°C~105°C                           |
| 零点允差/Zero Error          | ±1%FS                                 |
| 满程允差/Span Error          | ±1%FS                                 |
| 响应时间/Response Time       | P210: ≤5ms / ≤500Hz                   |
|                          | P310: ≤1ms / 1kHz~5kHz                |
|                          | P310: ≤0.1ms / 10kHz~20kHz            |
| 疲劳寿命/Fatigue Life        | 设计超过1亿次/More than 100 million designs |

#### 物理特征/Physical Characteristics

|                           |                           |
|---------------------------|---------------------------|
| 安装接口/Pressure Interface   | 参见订购指南/See Ordering Guide |
| 接液部件/Contact Parts        | SS304、SS316L              |
| 电气接口/Electrical Interface | 参见订购指南/See Ordering Guide |
| 外壳防护/Shell Protection     | IP65/IP67                 |
| 抗冲击/Shock                 | EC 68-2-32 procedure I    |
| 抗振动/Vibration             | 40g, 20-2000Hz            |
| 重量/Weight                 | 约100克/About 100g          |

#### 环境数据/Environmental Data

|                   |            |
|-------------------|------------|
| 认证/Authentication | CE、RoHS、Ex |
|-------------------|------------|

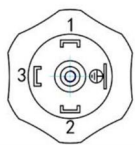
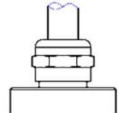
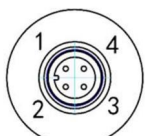
## 特有技术规格/Specific technical specifications

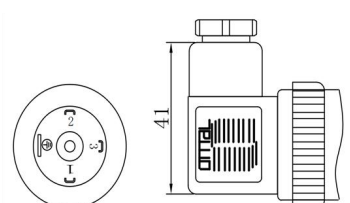
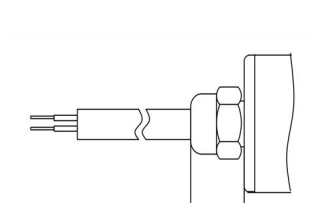
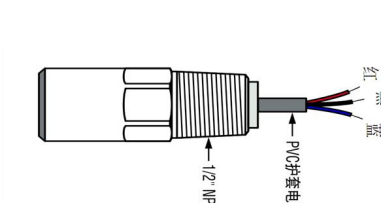
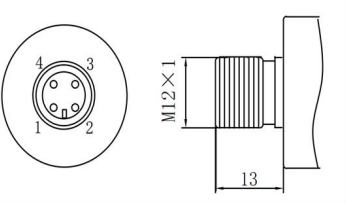
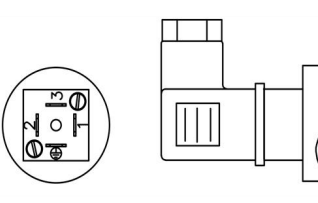
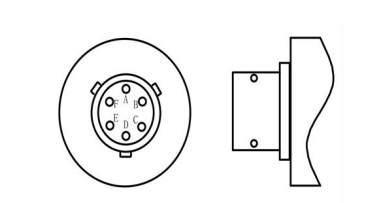
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|------------------------------|------------------------------------------------------------|
| 电压输出/Voltage Output          |                                                            |
| 输出 (3线) /Output (3-wire)     | 最小0V至最大10V/Min 0V to max 10V                               |
| 供电电压/Power Supply            | 高于满量程输出4V, 最大30Vdc<br>Over full range output 4V, max 30Vdc |
| 毫伏输出/mv Linearization Output |                                                            |
| 输出 (4线) /Output (4-wire)     | 3mv/V (4线) /4-wire                                         |
| 供电电压/Power Supply            | 10Vdc                                                      |
| 电流输出/Current Output          |                                                            |
| 输出 (2线) /Output (2-wire)     | 4-20mA (2线) /2-wire                                        |
| 供电电压/Power Supply            | 10-30Vdc                                                   |

## 压力特性/Pressure feature

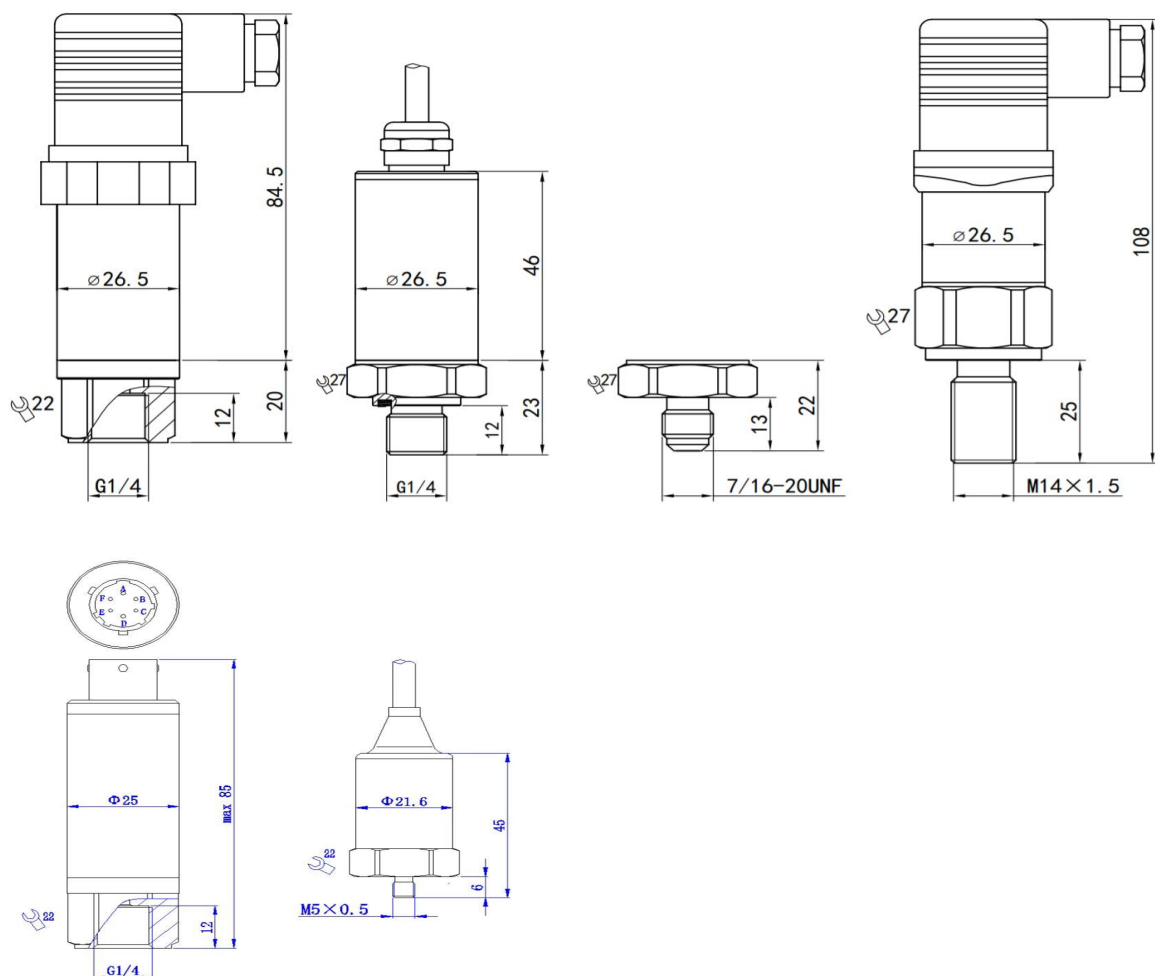
| 压力范围/Range<br>Kpa / bar | 耐压/Proof Pressure (×FS) | 破裂压/Burst Pressure (×FS) |
|-------------------------|-------------------------|--------------------------|
|                         | SSM-P210/310/410        | SSM-P210/310/410         |
| 真空/Vacuum               | 3.0×FS                  | 5.0×FS                   |
| 5~100kpa                | 2.0×FS                  | 5.0×FS                   |
| 200kpa~100bar           | 2.0×FS                  | 3.0×FS                   |
| 200bar~700bar           | 1.5×FS                  | 2.0×FS                   |

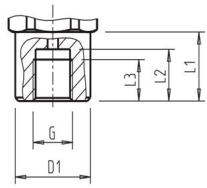
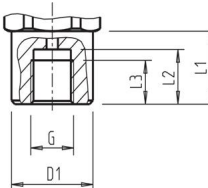
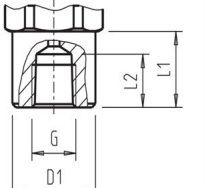
## 接线定义/Wiring Definition

| 插件示意图<br>Plugin diagram                                                                                 | 插件脚位<br>Foot position                                                               | 线缆颜色<br>Cable color | 电流输出<br>Current output | 电压输出<br>Voltage Output | RS485<br>Modbus RTU |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|------------------------|------------------------|---------------------|
| <b>D I N</b><br>     | 1                                                                                   | 红 (Red)             | E+电源/Supply            | E+电源/Supply            | E+电源/Supply         |
|                                                                                                         | 2                                                                                   | 黑 (Black)           | S+输出/Output            | E-/S-共负/Com            | E-电源/Supply         |
|                                                                                                         | 3                                                                                   | 蓝 (Blue)            |                        | S+输出/Output            | RS485 A             |
|                                                                                                         |  | 白 (White)           |                        |                        | RS485 B             |
| <b>直接出线</b><br>      |                                                                                     | 红 (Red)             | E+电源/Supply            | E+电源/Supply            | E+电源/Supply         |
|                                                                                                         |                                                                                     | 黑 (Black)           | S+输出/Output            | E-/S-共负/Com            | E-电源/Supply         |
|                                                                                                         |                                                                                     | 蓝 (Blue)            |                        | S+输出/Output            | RS485 A             |
|                                                                                                         |                                                                                     | 白 (White)           |                        |                        | RS485 B             |
| <b>M 1 2 * 1</b><br> | 1                                                                                   | 棕 (Brown)           | E+电源/Supply            | E+电源/Supply            | E+电源/Supply         |
|                                                                                                         | 2                                                                                   | 白 (White)           |                        |                        | RS485 B             |
|                                                                                                         | 3                                                                                   | 蓝 (Blue)            | S+输出/Output            | S+输出/Output            | RS485 A             |
|                                                                                                         | 4                                                                                   | 黑 (Black)           |                        | E-/S-共负/Com            | E-电源/Supply         |

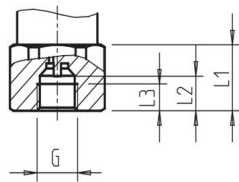
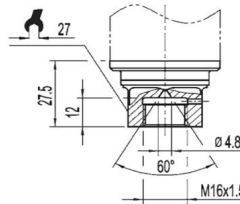
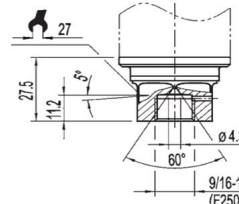
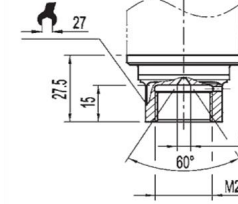
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|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| DIN43650 代码: 2D                                                                   | 格兰引线/Glan lead 代码xE                                                               | 隔爆型直接出线/Flameproof direct outlet                                                    |
|  |  |  |
| M12航空插件/M12 aviation plug-in 代码: 4P                                               | 工业连接器/Industrial connector 代码1D                                                   | 6芯航空插件/6-core aviation plug-in 代码6P                                                 |

## 外型尺寸/External dimensions



|         |                                                                                   |       |    |    |     |                                                                                   |       |    |    |     |                                                                                    |       |    |     |    |
|---------|-----------------------------------------------------------------------------------|-------|----|----|-----|-----------------------------------------------------------------------------------|-------|----|----|-----|------------------------------------------------------------------------------------|-------|----|-----|----|
| 单位: mm  | 内螺纹/Internal thread                                                               |       |    |    |     | 内螺纹/Internal thread                                                               |       |    |    |     | 内螺纹/Internal thread                                                                |       |    |     |    |
|         |  |       |    |    |     |  |       |    |    |     |  |       |    |     |    |
|         | 代码/Code                                                                           | 1G(F) | L1 | L2 | L3  | D1                                                                                | 2G(F) | L1 | L2 | L3  | D1                                                                                 | 2N(F) | L1 | L2  | D1 |
| 尺寸/Size | G1/8                                                                              | 20    | 10 | 8  | Φ25 | G1/4                                                                              | 20    | 13 | 10 | Φ25 | 1/4NPT                                                                             | 20    | 14 | Φ25 |    |

|         |                                                                                   |       |     |     |                                                                                   |         |  |  |                                                                                    |  |  |  |                                                                                     |  |  |  |
|---------|-----------------------------------------------------------------------------------|-------|-----|-----|-----------------------------------------------------------------------------------|---------|--|--|------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------|--|--|--|
| 单位: mm  | 内螺纹/Internal thread                                                               |       |     |     | 内螺纹/Internal thread                                                               |         |  |  | 内螺纹/Internal thread                                                                |  |  |  | 内螺纹/Internal thread                                                                 |  |  |  |
|         |  |       |     |     |  |         |  |  |  |  |  |  |  |  |  |  |
|         | 代码/Code                                                                           | 7U(F) | L1  | L2  | L3                                                                                | 16M(F)  |  |  | 9U(F)                                                                              |  |  |  | 20M(F)                                                                              |  |  |  |
| 尺寸/Size | 7/16-20UNF-2B                                                                     | 16    | 8.4 | 6.5 |                                                                                   | M16×1.5 |  |  | 9/16-18UNF                                                                         |  |  |  | M20×1.5                                                                             |  |  |  |

## 高性能型压力传感器 (SSM-P210/310/410)

型号表示: SSM-P210-①②③④⑤⑥⑦

| 系列号<br>Series                    | ①压力类型<br>Pressure Type | ②压力范围<br>Range          | ③安装接口<br>Process connection              | ④输出信号<br>Output              | ⑤电气接口<br>Electrical connection | ⑥散热装置<br>Radiator | ⑦精度<br>Accuracy | 参数描述<br>Parameter description                                                                    |
|----------------------------------|------------------------|-------------------------|------------------------------------------|------------------------------|--------------------------------|-------------------|-----------------|--------------------------------------------------------------------------------------------------|
| SSM-P210<br>SSM-P310<br>SSM-P410 |                        |                         |                                          |                              |                                |                   |                 | 中频响应/Intermediate frequency response<br>高频响应/High frequency response                             |
|                                  | A                      |                         |                                          |                              |                                |                   |                 | 表压/Gauge pressure<br>绝压/Absolute pressure                                                        |
|                                  |                        | 范围/Range<br>K<br>B<br>M |                                          |                              |                                |                   |                 | 压力数值/Pressure value<br>KPa<br>Bar<br>MPa                                                         |
|                                  |                        |                         | 1G(F)<br>2G(F)<br>1N<br>2N<br>4G<br>XX * |                              |                                |                   |                 | G1/8 (内/Internal thread)<br>G1/4 (内/Internal thread)<br>1/8NPT<br>1/4NPT<br>G1/2<br>其他规格/Other * |
|                                  |                        |                         |                                          | 3MV<br>4A<br>4V<br>5V<br>10V |                                |                   |                 | 0-33.3毫伏/mv<br>4-20mA两线制/2-wire<br>0.5-4.5V三线制/3-wire<br>0-5V三线制/3-wire<br>0-10V三线制/3-wire       |
|                                  |                        |                         |                                          |                              | 2D<br>4P<br>6P<br>xE           |                   |                 | DIN43650赫斯曼/Hirschmann<br>四芯M12连接器/4pin<br>六芯航空插件/6pin<br>直接引线X米/Direct lead x meter             |
|                                  |                        |                         |                                          |                              |                                | 5S                |                 | 125℃, 无散热装置/No radiator<br>150℃, 5片散热槽/5 radiators                                               |
|                                  |                        |                         |                                          |                              |                                |                   | 2<br>1 *        | ±0.25%FS<br>±0.1%FS *                                                                            |

注意事项/Attention:

1、4PIN标配2米电缆线  
4PIN Standardized 2m Cable Line

2、6PIN标配2米电缆线  
6PIN Standardized 2m Cable Line

3、直接引线标配1米电缆线  
Direct lead with 1 m cable

4、带 “\*” 号请联系技术人员  
With"\"",please contact the technician

### 注意事项/Attention:

- 4PIN标配2米电缆线  
4PIN Standardized 2m Cable Line
- 6PIN标配2米电缆线  
6PIN Standardized 2m Cable Line
- 直接引线标配1米电缆线  
Direct lead with 1 m cable
- 带 "\*" 号请联系技术人员  
With "\*", please contact the technician