# TX HMI/PLC系列
# 插件模块
# 20 DI，12 DO 0.5 A，4 AI（U、I、RT、TC），4 AO（U、I）
# TX-IO-XX03

| | |
|---|---|
| 型号 | TX-IO-XX03 |
| 货号 | 6828201 |

| 系统数据 | |
|---|---|
| 供电电源 | 24 VDC |
| 允许范围 | 12…30 VDC |
| 系统供电 | 来自 HMI |
| 连接供电电压 | 含笼式弹簧夹端子的可插拔端子排 |
| 电气隔离 | 光学，1500 $V_{rms}$ |

| 数字量输入 | |
|---|---|
| 通道数 | 20 |
| Connectivity inputs | 3个可插拔弹簧夹端子板<br>10针，3.5 mm型<br>(Weidmueller — Omnimate BLZF 3.5/180F) |
| 输入类型 | PNP |
| 低电平信号电压 | < 6 V |
| 高电平信号电压 | > 12 V |
| 低电平信号电流 | < 1 mA |
| 高电平信号电流 | > 3 mA |
| 输入延迟 | 0.05 ms（S输入端），0.0002 ms（E输入端） |
| 传感器供电 | 24 VDC |
| 电气隔离 | 1500 $V_{rms}$ |

| 模拟量输出 | |
|---|---|
| 通道数 | 4 |
| 工作模式 | 电流，电压，电阻，热电偶 |
| 分辨率 | 12 位 |
| 25 °C条件下的基本误差 | 0.1 % |

| Operating mode voltage | |
|---|---|
| 最大输入电压 | 15 V |
| 输入信号类型 | 4路差分（或者8个AI单端，仅在电压模式下） |
| 测量范围 | +/-100 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V,<br>0 … 1 V, 0 … 10 V |
| Linearity | 0.1 % |
| Basic error at 25 °C | 0.1 % |
| Repeat accuracy | < 0.2 % |

| 工作模式电流 | |
|---|---|
| Max. Eingangsspannung | 15 V |
| 最大输入电流 | 20 mA |
| 负载 | 200 Ω |
| 输入信号类型 | 4 路差分输入，外部供电 |
| 测量范围 | 0…20 mA，4…20 mA |
| Linearity | 0.1 % |
| Basic error at 25 °C | 0.1 % |

- 插入式扩展模块，搭配TX700和TX800产品系列的HMI使用
- I/O模块
- 20通道数字量输入，24VDC，PNP
- 12通道数字量输出，24VDC，0.5 A，PNP
- 4通道模拟输入，U、I、RTD、TC
- 4通道模拟输出，U，I

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| 工作模式 RTD / 阻抗 | |
|---|---|
| 温度单位 | °摄氏度，°华氏度 |
| 测量范围 | -100…850 °C |
| 接插件型号 | 2、3、4 接线 |
| measurement current | 1.2 mA |
| Repeat accuracy | < 0.1 % |

| 工作模式 热电偶 | |
|---|---|
| 温度单位 | µV |
| 测量范围 | E (-270…1000 °C),<br>J (-210…760 °C),<br>K (-270…1370 °C),<br>R (0…1768 °C),<br>S (0…1768 °C),<br>T (-270…400 °C) |
| 冷端补偿 | 通过 Pt100 补偿输入端（CN4 针脚 1-5）实现外部供电 |
| Basic error at 25 °C | 0.1 % |

| 数字量输出 | |
|---|---|
| 通道数 | 12 |
| Connectivity outputs | 2个可插拔弹簧夹端子板<br>10针，3.5 mm型<br>(Weidmueller — Omnimate BLZF 3.5/180F) |
| 输出类型 | PNP |
| 输出电压 | 24 VDC |
| 通道输出电流 | 0.5 A |
| 同步因数 | 0.23 |
| 继电器输出 | 0.15 ms |
| 短路保护 | 是 |
| 执行器供电 | 24 VDC 外部馈电 |
| 电气隔离 | 1500 $V_{rms}$ |

| 模拟量输出 | |
|---|---|
| 通道数 | 4 |
| 工作模式 | +/-100 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V,<br>0 … 1 V, 0 … 10 V<br>+/-2 mA, +/-10 mA, +/-20 mA |
| 分辨率 | 12 字节 |

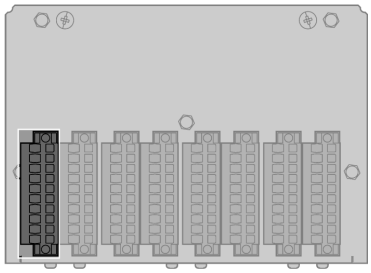
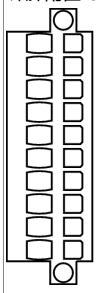
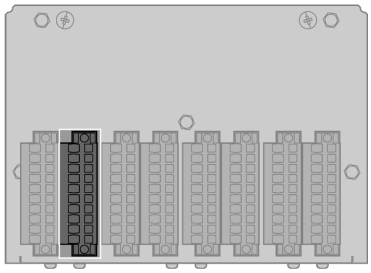
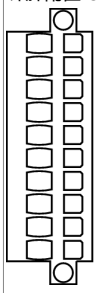
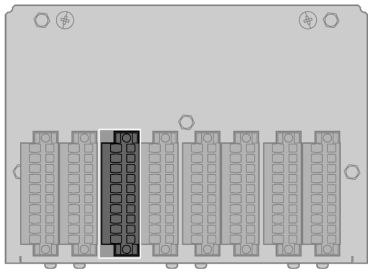
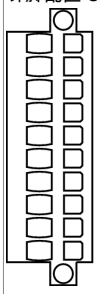
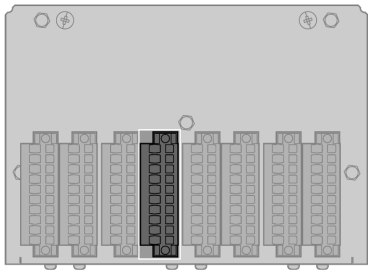
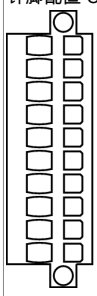
| Operating mode voltage | |
|---|---|
| Load resistor | > 1 kΩ |
| Output signal type | 单端 |
| Output signal range | +/-10 V |
| Linearity | 0.15 % |

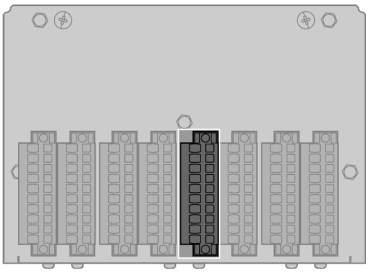
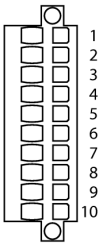
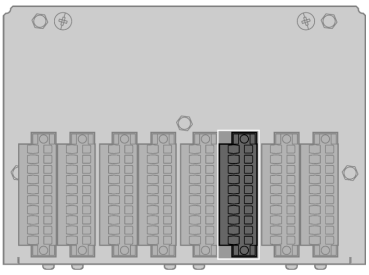
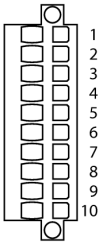
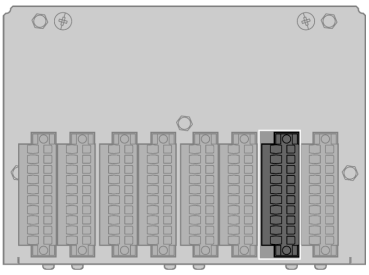
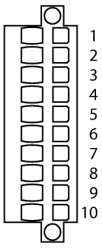
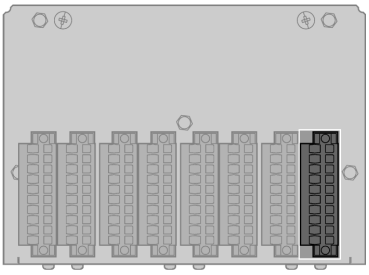
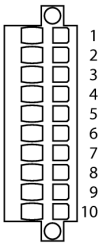
| Operating mode current | |
|---|---|
| 负载电阻 | < 470 Ω |
| Output signal type | 激活 |
| 输出信号范围 | 0…20 mA |
| Linearity | 0.2 % |

| 标准 / 指令合规性 | |
|---|---|
| 认证和证书 | CE, cULus, Class 1, Div. 2, DNV-GL |

| 系统数据 | |
|---|---|
| 尺寸 (长/宽/高) | 125.2 x 89.3 x 33.7 mm |
| 工作温度 | 0…+50 °C |
| 防护等级 | IP20 |
| 外壳材料 | 金属 |
| 外壳颜色 | 银 |
| 安装 | 位于TX500和TX700系列的HMI上 |

Connection and pin assignment

| | | |
|---|---|---|
|  | 模拟量输出 | 针脚配置 CN1<br>  <br>1 = Pt100_1 Vers.<br>2 = CH_1 + Input<br>3 = CH_1 – Input<br>4 = COM-AGND<br>5 = Shield (housing)<br>6 = Pt100_2 Vers.<br>7 = CH_2 + Input<br>8 = CH_2 – Input<br>9 = COM-AGND<br>10 = Shield (housing) |
|  | 模拟量输出 | 针脚配置 CN2<br>  <br>1 = Pt100_3 Vers.<br>2 = CH_3 + Input<br>3 = CH_3 – Input<br>4 = COM-AGND<br>5 = Shield (housing)<br>6 = Pt100_4 Vers.<br>7 = CH_4 + Input<br>8 = CH_4 – Input<br>9 = COM-AGND<br>10 = Shield (housing) |
|  | 模拟量输出 | 针脚配置 CN3<br>  <br>1 = CH1<br>2 = COM-AGND<br>3 = CH2<br>4 = COM-AGND<br>5 = Shield (housing)<br>6 = CH3<br>7 = COM-AGND<br>8 = CH4<br>9 = COM-AGND<br>10 = Shield (housing) |
|  | 冷端温度补偿 (Pt100) 和电源数字量 I/O | 针脚配置 CN4<br>  <br>1 = Pt100_5 Vers.<br>2 = CH_5 + Input<br>3 = CH_5 – Input<br>4 = COM-AGND<br>5 = Shield (housing)<br>6 = n.c.<br>7 = + 24 VDC in<br>8 = + 24 VDC in<br>9 = GND in<br>10 = GND in |

| | | |
|---|---|---|
|  | 数字输入 | 针脚配置 CN5<br>  <br>1 = + 24 VDC<br>2 = DI 1<br>3 = DI 2<br>4 = DI 3<br>5 = DI 4<br>6 = DI 5<br>7 = DI 6<br>8 = DI 7<br>9 = DI 8<br>10 = GND |
|  | 数字输入 | 针脚配置 CN6<br>  <br>1 = + 24 VDC<br>2 = DI 9<br>3 = DI 10<br>4 = DI 11<br>5 = DI 12<br>6 = DI 13<br>7 = DI 14<br>8 = DI 15<br>9 = DI 16<br>10 = GND |
|  | 数字量输入/输出 | 针脚配置 CN7<br>  <br>1 = + 24 VDC<br>2 = DI 17<br>3 = DI 18<br>4 = DI 19<br>5 = DI 20<br>6 = DO 1<br>7 = DO 2<br>8 = DO 3<br>9 = DO 4<br>10 = GND |
|  | 数字量输出 | 针脚配置 CN8<br>  <br>1 = + 24 VDC<br>2 = DO 5<br>3 = DO 6<br>4 = DO 7<br>5 = DO 8<br>6 = DO 9<br>7 = DO 10<br>8 = DO 11<br>9 = DO 12<br>10 = GND |

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