



MicroSmart Pentra PID Module

Features

- Precise, stable and accurate PID control with less than a 0.2% error
- Available in two models:
 - Built-in 2 analog inputs, 2 x 4-20mA/ 0-10VDC outputs
 - Built-in 2 analog inputs, 2 x relay outputs
- Each input individually configured to accept different signal types
- Up to seven modules can be mounted on the MicroSmart Pentra
- Maximum 14 PID loops with auto-tuning
- 14-bit resolution
- ARW (anti-reset windup)
- Accepts many different input types including:
 - Type K, J, R, S, B, E, T, C, PL-II and N thermocouples
 - RTD
 - 0-20 mA and 4-20 mA
 - 0-1V, 0-5V, 1-5V, and 0-10V DC
- Numerous control methods including:
 - Cascade
 - External set point
 - Heating and cooling control action
 - Difference input control

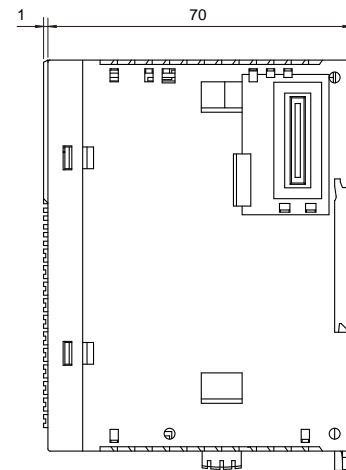
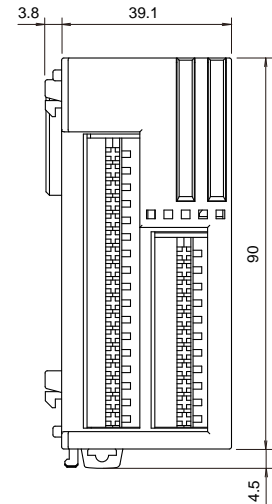


Specifications

| | | FC5A-F2MR2 / FC5A-F2M2 | | |
|-------------------------|---|---|--|------------------------------|
| | | Type | Measurement Range | Input Value of LSB |
| Rated Scale | Thermocouple | K | -200 to 1370°C | -328 to 2498°F 1°C (°F) |
| | | K (with decimal point) | -200.0 to 400.0°C | -328.0 to 752.0°F 0.1°C (°F) |
| | | J | -200 to 1000°C | -328 to 1832°F 1°C (°F) |
| | | R | 0 to 1760°C | 32 to 3200°F 1°C (°F) |
| | | S | 0 to 1760°C | 32 to 3200°F 1°C (°F) |
| | | B | 0 to 1820°C | 32 to 3308°F 1°C (°F) |
| | | E | -200 to 800°C | -328 to 1472°F 1°C (°F) |
| | | T | -200.0 to 400.0°C | -328.0 to 752.0°F 0.1°C (°F) |
| | | N | -200 to 1300°C | -328 to 2372°F 1°C (°F) |
| | | PL-II | 0 to 1390°C | 32 to 2534°F 1°C (°F) |
| Resistance Thermometer | C(W/Re5-26) | 0 to 2315°C | 32 to 4199°F 1°C (°F) | |
| | Pt100 | -200 to 850°C | -328 to 1562°F 1°C (°F) | |
| | Pt100 (with decimal point) | -200.0 to 850.0°C | -328.0 to 1562.0°F 0.1°C (°F) | |
| | JPt100 | -200 to 500°C | -328 to 932°F 1°C (°F) | |
| Current/Voltage | JPt100(with decimal point) | -200.0 to 500.0°C | -328.0 to 932.0°F 0.1°C (°F) | |
| | 4 to 20mA DC | -2000 to 10000 (12000 increments) *1 | 1.333μ | |
| Input | Current/Voltage | 0 to 20mA C | -2000 to 10000 (12000 increments) *1 | 1.666μA |
| | | 0 to 1V DC | -2000 to 10000 (12000 increments) *1 | 0.083mA |
| | Input Type | 0 to 5V DC | -2000 to 10000 (12000 increments) *1 | 0.416mA |
| | | 1 to 5V DC | -2000 to 1000 (12000 increments) *1 | 0.333mA |
| | | 0 to 10V DC | -2000 to 10000 (12000 increments) *1 | 0.833mA |
| | | Thermocouple | K, J, R, S, B, E, T, N, PL-II, C (W/Re5-26) External resistance: 100Ω maximum However, B input, External resistance: 40Ω maximum | |
| Resistance Thermometer | Pt100, JPt100, 3-wire type Allowable conductor resistance (per wire): 10Ω maximum Sensor (detection) current: 0.2A | | | |
| Current | 0 to 20mA DC, 4 to 20mA DC Input impedance: 50Ω Maximum permanent allowed overload (No damage): 50mA maximum | | | |
| Voltage | 0 to 1V DC, Input impedance: 1MΩ minimum Maximum permanent allowed overload (No damage): 5V DC maximum Allowable output impedance: 2kΩ maximum 0 to 5V DC, 1 to 5V DC, 0 to 10V DC, Input impedance: 100kΩ minimum Maximum permanent allowed overload (No damage): 15V DC maximum Allowable output impedance: 100Ω maximum | | | |
| Power Supply Voltage | | 24V DC (External power), 5V DC (Internal power) | | |
| Allowable Voltage Range | | 20.4 to 28.8V DC | | |

*1: Linear conversion possible

Dimensions (mm)



Specifications can't on following page.

