FY Series
Microprocessor PID Controller

FY400   FY600   FY700   FY800   FY900

The FY Series Microprocessor PID Controllers are highly reliable and accurate digital controllers that are very suitable for critical HVAC control requirements such as clean rooms, isolation rooms, laboratory, central plants, and utilities. The industry grade control performance provides versatile input selections and PID plus fuzzy functions.

FEATURES

- Multi range input (TC, RTD, mV, mA). Each 14 bit resolution.
- Fuzzy / PID control , with two individual outputs
- Three sets of alarm. Each one has 17 modes.
- Implement Zero / Phase control by trig SCR module directly
- E^2PROM Non-volatile memory.
- RS232 and RS485 communication.
- Self-diagnosis function.
- Auto-zero and Auto-span circuit keep good accuracy.
- Free range voltage AC85 ~ 265V / DC15 ~ 50V.
- Data lock function.
- Auto / Manual output mode.
- Output percent showing with 10 LED.
- 2 patterns each 8 segments programming procedure available to be ordered.
- Input 2 can be used in Remote SV.

SPECIFICATIONS

- **Power supply:** AC85 to 265V 50/60HZ
- **Power consumption:** About 4VA
- **Memory element:** E^2 PROM
- **Display accuracy:** Within 0.2% of displayed value + 1 digit
- **Sampling time:** 250 ms
- **Input signal:** Thermocouple, RTD, DC, Voltage/current
- **Isolation:**
  Output part (control, alarm, transfer) and input part (measuring, CPU) are isolated separately.
- **Dielectricity:**
  Measuring terminal-grounded terminal AC 1000V, 1 min.
  Power supply terminal-grounded terminal AC 1500V, 1min.
- **Isolated resistance:**
  Measuring terminal-grounded terminal DC 500V more than 10MΩ
  Power supply terminal-grounded terminal DC 500V > 10 MΩ
- **Operating temperature:** 0 ~ 50℃
- **Storage temperature:** -25 ~ 65℃
- **Humidity range:** 50 ~ 85% RH (not dew)
- **Net weight:**
  FY400 approx 150g , FY600/FY700/FY800 approx 225g , FY900 approx 300g

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ORDER INFORMATION

FY ☐ [0] [0] - [1] [0] [1] [0] [0] [0]
    A   B   C   D   E   F   G

A: Model No:
   FY400 for 48 × 48mm (DIN 1/16),
   FY800 for 48 × 96mm (DIN 1/8)
   FY600 for 96 × 48mm (DIN 1/8),
   FY900 for 96 × 96mm (DIN 1/4)
   FY700 for 72 × 72mm

B: Out 1 control output mode:
   0- None
   1- Relay, contact, 3A/240VAC
   2- Volt, voltage pulse, 20VDC/20mA
   3- 4~20mA
   4- 0~20mA
   5- 1 SSR (1 Zero crossing control)
   6- 3 SSR (3 Zero crossing control)
   7- Proportional motor 3 wired close loop control
   8- 1 SCR (1 Phase angle control)
   9- 3 SCR (3 Phase angle control)
   A- 0~5VDC
   B- 0~10VDC
   C- 1~5VDC
   D- 2~10VDC

C: Out 2 control output mode:
   0- None
   1- Relay, contact, 3A/240VAC
   2- Volt, voltage pulse, 20VDC/20mA
   3- 4~20mA
   4- 0~20mA
   A- 0~5VDC
   B- 0~10VDC
   C- 1~5VDC
   D- 2~10VDC

D: Alarm:
   0- None
   1- One set
   2- Two sets
   3- Three sets (for FY900/FY800/FY600)

E: Transmitter:
   0- None
   1- 4~20mA   (Adjustable)
   2- 0~20mA   (Adjustable)
   A- 0~5VDC   (Adjustable)
   B- 0~10VDC (Adjustable)
   C- 1~5VDC   (Adjustable)
   D- 2~10VDC (Adjustable)
   E- 0~1VDC   (Adjustable)

F: Second Input: (for Remote Set Point)
   0- None
   1- 4~20mA
   2- 0~20mA
   A- 0~5VDC
   B- 0~10VDC
   C- 1~5VDC
   D- 2~10VDC
   E- 0~1VDC
   *This function except FY400

G: Communication:
   0- None
   1- RS232
   2- RS485
   3- TTL Communication