

Description

A6-PR 6-digits process meters has been designed with high accuracy measurement, 6 digit display, flexible I/O functions and communication port for process measuring application.

There are also build in 4x External Control Inputs, and can option 4x Relay outputs, 1x Analog output and 1x RS485 (Modbus RTU Mode) communication port with multi-functions such as control, alarm, re-transmission and communication for a wide range of industrial applications.

There was designed the zero tracking and stable tracking function in programming level. According to the application, user can set the function to get the suitable reading.



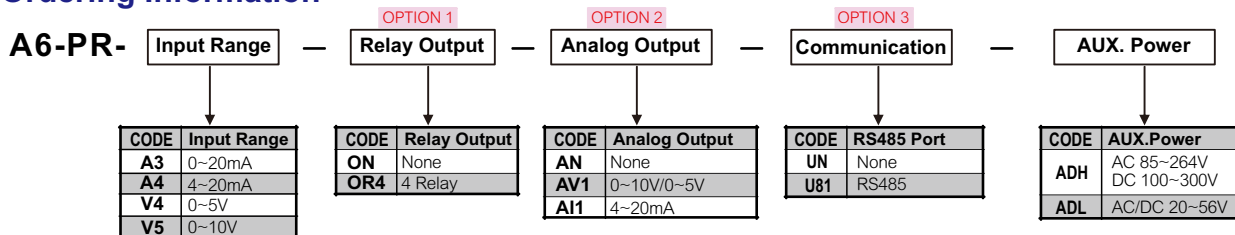
Features

- Measuring range: DC 0~5V/0~10V/0(4)~20mA ; Display range: 0~999999
- Programmable sampling rate: 6.25~100 times/second
- Can be site calibration, input signal and input display value to execute calibration.
- Relay output can be set to HI/OK/LO , compare in period time and compare by trigger modes.
- External Control Inputs and front key can be set to zero return, tare, gross, net, start / end measuring.
- Optional analog output and RS485 communication port.

Applications

- Pressure measuring and control system
- High-speed response control system
- Flow measuring and control system
- Testing equipments and testing management system

Ordering Information



Technical Specification

Input

Input Range	Input Resistance	Input Range	Input Resistance
0~20mA	≤ 250Ω	0~10V	≥ 1MΩ
4~20mA	≤ 250Ω	0~5V	≥ 1MΩ

Accuracy: ≤ ±0.01% F.S. +1 count
 Sampling rate: 6.25~100 times/sec
 Non-Linearly: ≤ 0.01%
 A/D Converter: 24 bits resolution
 Calibration: site calibration

Display & Function

LED: 6 digits 0.5"(12.5mm) High brightness display
 Display range: 0~999999
 Decimal point: Programmable 0 / 0.0 / 0.00 / 0.000
 Display resolution: Programmable 1, 2, 5, 10, 20, 50
 Over range indicator: -OL- : When display is over the setting of d5P.OL

Zero tracking time (P t - t): 0.0(off)/0.1~10.0 Sec
 Zero tracking range (P t - r): 0.0~10.0 digits
 Tracking range=(P t - r) S.V. x [d + u] S.V.)
 Unstable tracking time (n d - t): 0.0(off)/0.1~10.0 Sec
 Unstable tracking range (n d - r): 0.1~10.0 digits
 Tracking range=(n d - r) S.V. x [d + u] S.V.)

Operating Key

Function setting:

The Up key and down key on front panel can be set individual function as below:
 Zero return / Tare / Net & Gross / M+(Value accumulation) / M-(Subtract last value accumulation) / MC(Reset Accumulation) / CLR(Reset tare) / Start(Start measuring) / END(Stop measuring) / CH.DSP(Change display)

External Control Input (ECI)

Input mode:

4 Channels input ; switch contact or open collector input, rise edge trigger

Function setting:

Can be set individual function as below:
 Zero / Tare / Net & Gross / M+(Value accumulation) / M-(Subtract last value accumulation) / MC(Reset Accumulation) / CLR(Reset tare) / Start(Start measuring) / END(Stop measuring) / CH.DSP(Change display)

Control function (Optional)

Relay contact form: 4 sets relay SPST (1a), 5A/250Vac;5A/30Vdc
 Relay action mode: HI / OK / LO / DO(UART)
 Relay contact status: Can be set to Normally open(NO) or close(NC)

Analog Output(Optional)

Accuracy: $\pm 0.1\%$ of F.S.; 16 bits DA converter
 Ripple: $\pm 0.1\%$ of F.S.
 Response time: 200 mS. (10~90% Rated output)
 Voltage: 0~5V / 0~10V
 Current: 4~20mA

Output driver capability: Voltage: 0~10V; $\geq 2000\Omega$
 Current: 4~20mA; $\leq 300\Omega$

Function setting:
 [R05EL] Parameter select
 [R0R5P] Output phase
 Settable: Positive / Negative / Absolute
 [R0R5C] Output direction
 Settable: Equal / Opposite
 [R0L5] AO range low: 0~999999
 [R0H5] AO range high: 0~999999
 [R0P00] Adjust range : 0~99999
 [R05P0] Adjust range : 0~99999

Digital fine adjust:

RS485 Communication

Protocol: Modbus RTU mode
 Baud rate: 9600/19200/38400/57600
 Data bit: 8bits
 Parity: None
 Stop bit: 1 or 2
 Address: 1 ~ 247
 Distance: 1200M max
 Terminate resistor: 120~300 Ω /0.25W(typical: 150 Ω)

Power

Power supply: ADH: AC 85~264V/DC 100~300V
 ADL: AC/DC 20~56V

Power consumption: AC < 10VA; DC < 4W
 Memory storage: EEPROM

Safety

Isolation: AC 2.0 KV , for 1 min, Between Power / Input / Output / Case
 Insulation resistance: $\geq 100M\Omega$ @500Vdc, Between Power / Input / Output

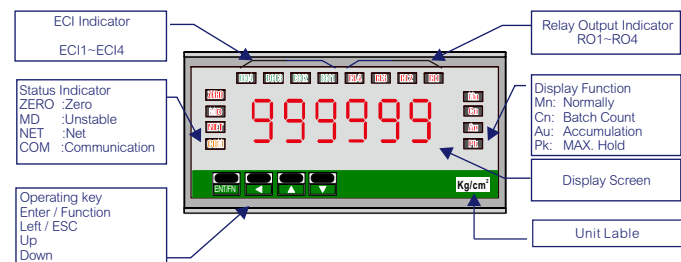
Environmental Characteristics

Operating Temp.: 0~60 °C
 Humidity rating: 20~95 %RH, Non-condensing
 Temp. coefficient: ≤ 50 PPM/°C
 Storage Temp.: -10~70 °C
 IP Enclosure: Front panel: IEC 529 (IP52) ; Housing: IP20

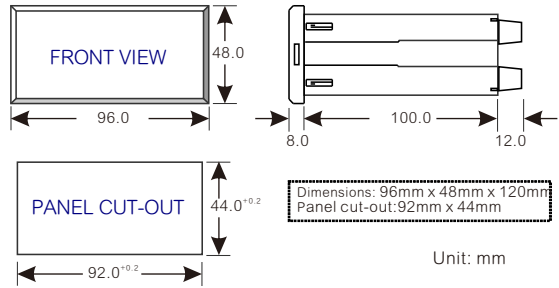
Mechanical Characteristics

Dimensions: 96mm(W) x 48mm(H) x 120mm(L)
 Panel cutout: 92mm(W) x 44mm(H)
 Material: ABS With fire-retardant (UL 94V-0)
 Mounting: Panel mounting
 Wire terminal: Plastic NYLON 66 (UL 94V-0); 10A 300VAc
 AWG: 22~16/ 0.3~1.2mm²
 Screw Torque Value: M2.5 / 5kgf.cm (Max)
 Weight: About 350g

Front Panel

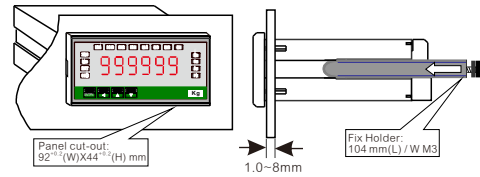


Dimensions

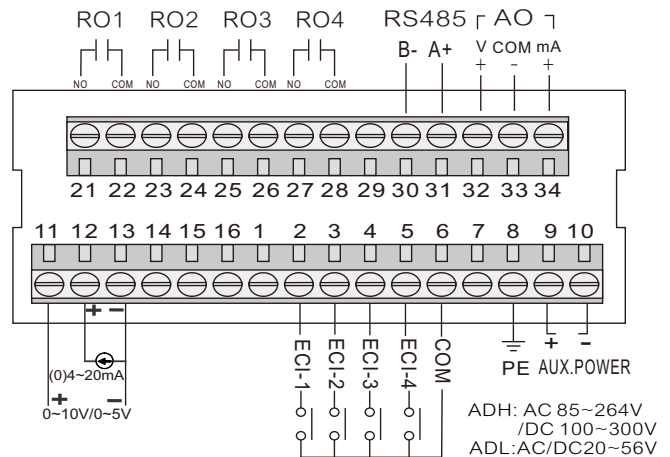


Installation

⚠ The meter should be installed in a location that does not over the maximum operating temperature and humidity and provides good air circulation

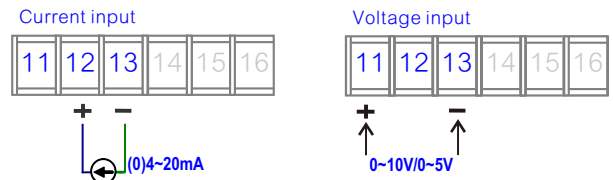


Connection Diagram



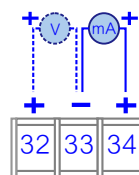
⚠ Please check the voltage of power supplied first, and then connect to the specified terminals. It is recommended that power supplied to the meter be protected by a fuse or circuit breaker.

Input Signal



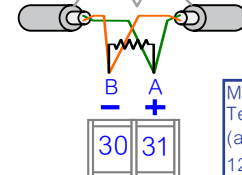
Analog Output

⚠ Caution of voltage and current output pin assignment



RS485 Port connection

⚠ Cable shielding must be grounding



Max. Distance: 1200M
 Terminal Resistor
 (at latest unit)
 120~300 Ω / 0.25W
 (typical: 150 Ω)