

APB Series PLC



Features:

- ◆ Main module: 12\22\24 points; Extension module: 22 points; It is flexible for extending, and the optimal configuration: 7 I/O extension modules, 1 voice module, and 1 SMS module;
- ◆ Program memory capacity: 320 FBDs, EEPROM;
- ◆ It is allowed to place a Li-ion battery to power the clock;
- ◆ Under the circumstance of DC12-24V, the main machine at most has 12 voltage analog inputs 0-10V, 2 current analog inputs 0/4-20mA and 2 analog outputs 0/4-20mA;
- ◆ High-speed operation: at most 4 high-speed inputs 10KHZ and 2 high-speed outputs 50KHZ;
- ◆ MODBUS protocol, and can be connected to SH-300 (Text Panel);
- ◆ New function blocks: pulse width modulation (PWM), pulse output (PTO), ACC, SMS and analog calculation etc.;



Technical Parameters

| Item | APB-12MRD(L) | APB-12MTD(L) | APB-12MGD(L) | APB-22MRA(L) | APB-24MRD |
|--|---|--------------|--------------|--------------|-----------|
| | APB-22MRD(L) | APB-22MTD(L) | APB-22MGD(L) | | |
| Surge Immunity | 2kv(common mode), 1kv(differential mode), Level 3 (IEC61000-4-5) | | | | |
| Electrostatic Discharge (outer casing) | ±8kv(air discharge)/±6kv(contact discharge), Level 3 (IEC61000-4-5) | | | | |
| Ambient Temperature | -10°C~+55°C | | | | |
| Storage Temperature | -40°C~+70°C | | | | |
| Ambient Humidity | 5%~95%RH | | | | |
| Degree of Protection | IP20(Non-waterproof) | | | | |
| Installation | Fixing with M3 screws or Standard DIN rail mounting | | | | |
| Dimensions (mm) | 71*99*90(12 points); 126*99*90(22 points); 126*99*90(24 points) | | | | |

YUMO

YUEQING YING'S IMPORT & EXPORT CO., LTD

ADD: NO.126 LIUYANG ROAD, ZHAOYANG INDUSTRY ZONE, LIUSHI TOWN,
YUEQING CITY, ZHEJIANG PROVINCE, 325604 CHINA

TEL: 0086-577-62791815 FAX: 0086-577-62791825

[Http://www.yingselectric.com](http://www.yingselectric.com) E-mail:sales@yingselectric.com

| | |
|------------------------------------|--|
| Programming Language | FBD |
| Points | 12 points/22 points/24 points/can support 7 I/O extension modules |
| Memory Capacity | 320 FBDs |
| Filtering Duration of Input Signal | It can be set to improve the stability of signal |
| Real-time Clock | 160h, can place a Li-ion battery if it is necessary |
| Password Protection | Multiple passwords protection |
| High-speed Operation | At most 4 high-speed inputs 10KHz, and 2 high-speed outputs 50KHz |
| Analog Operation | At most 12 voltage 0-10V and 2 current 0/4-20mA analog inputs, and 2 analog outputs 0/4-20mA |
| Power Failure Protection | Yes |
| Simulate Monitoring | Yes |
| Communication Interface | TTL interface; besides, communication module supports 2 RS485 and 1 RS232 interfaces |
| Baud Rate | 9600bps |
| Communication Protocol | MODBUS RTU |

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| Power Supply | | | | | |
|----------------------|--|----------------------|----------------------|-------------------------|----------------------|
| Rated Voltage | DC12-24V | DC12-24V | DC12-24V | AC110-220V | DC12-24V |
| Permissible Range | DC11-28V | DC11-28V | DC11-28V | AC85V-265V | DC11-28V |
| Power Consumption | 3.5w | | | | |
| Digital Input | | | | | |
| Input Type | NPN/PNP | NPN/PNP | NPN/PNP | NPN/PNP | NPN/PNP |
| Input Signal 0 | DC0-5V | DC0-5V | DC0-5V | AC0-70V | DC0-5V |
| Input Signal 1 | DC8.5-28V | DC8.5-28V | DC8.5-28V | AC85-265V | DC8.5-28V |
| Isolation | Non-isolation | Non-isolation | Non-isolation | Photoelectric isolation | Non-isolation |
| Isolated Group | -- | -- | -- | 14 | -- |
| Isolated Voltage | -- | -- | -- | 2500/5000Vr.m.s | -- |
| Digital Output | | | | | |
| Output Type | Relay | Transistor(NPN) | Transistor(PNP) | Relay | Relay |
| Rated Voltage | 24VDC/220VAC | 24VDC | 24VDC | 24VDC/220VAC | 24VDC/220VAC |
| Isolation Method | Relay isolation | - | - | Relay isolation | Relay isolation |
| Analog Input | | | | | |
| Input Type | (DC0-10V)/8 inputs | (DC0-10V)/8 inputs | (DC0-10V)/8 inputs | -- | ((0)4-20mA)/2 inputs |
| | (DC0-10V)/12 inputs | (DC0-10V)/12 inputs | (DC0-10V)/12 inputs | | (DC0-10V)/12 inputs |
| A/D Conversion | 12 bits | 12 bits | 12 bits | -- | 12 bits |
| Analog Output | | | | | |
| Output Type | -- | -- | -- | -- | (0)4-20mA/2inputs |
| A/D Conversion | -- | -- | -- | -- | 12 bits |
| Isolation | Non-isolation | Non-isolation | Non-isolation | Non-isolation | Non-isolation |
| High-speed Operation | | | | | |
| Input Type | 4 inputs /10KHz | 4 inputs /10KHz | 4 inputs /10KHz | -- | 4 inputs /10KHz |
| | Support single-phase counter and two-phase counter | Support single-phase | Support single-phase | -- | Support single-phase |

| | | | | | |
|-------------|----|---|---|----|-------------------------------|
| | | counter and two-phase counter | counter and two-phase counter | | counter and two-phase counter |
| Output Type | -- | 2 outputs / 50KHZ Supports multiple outputs: PTO pulse output, PWM pulse width modulation and acceleration/deceleration single-phase pulse | 2 outputs / 50KHZ Supports multiple outputs: PTO pulse output, PWM pulse width modulation and acceleration/deceleration single-phase pulse | -- | -- |

 Type

Note: The economical type is supplied without LCD panel, and the basic type is supplied with LCD panel.

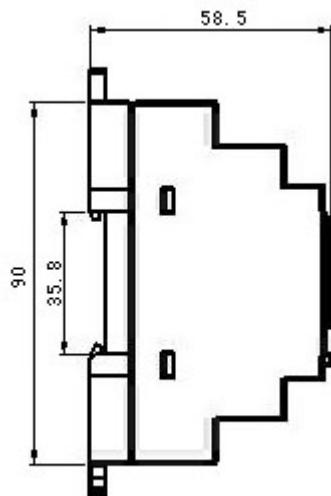
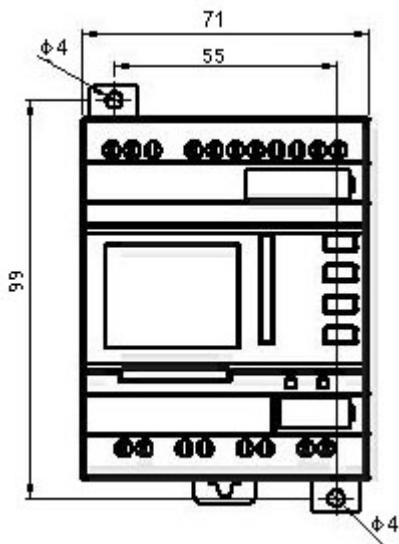
| | | | |
|--------------|-------------|---|--|
| APB-12MRD(L) | DC12V-24V | 8 points digital input (can be used as analog inputs); I4-I7 can be high-speed ports | 4 points relay output |
| APB-12MTD(L) | DC12V-24V | 8 points digital input (can be used as analog inputs); I4-I7 can be high-speed ports | 4 points NPN transistor output Q2、Q3 can be high-speed output ports |
| APB-12MGD(L) | DC12V-24V | 8 points digital input (can be used as analog inputs); I4-I7 can be high-speed ports | 4 points PNP transistor output Q2、Q3 can be high-speed output ports |
| APB-22MRA(L) | AC100V-240V | 14 points input | 8 points relay output |
| APB-22MRD(L) | DC12V-24V | 14 points digital input (the first 12 points can be analog inputs); I4-I7 can be high-speed ports | 8 points relay output |
| APB-22MTD(L) | DC12V-24V | 14 points digital input (the first 12 points can be analog inputs); I4-I7 can be high-speed ports | 8 points NPN transistor output Q2、Q3 can be high-speed output ports |
| APB-22MGD(L) | DC12V-24V | 14 points digital input (the first 12 points can be analog inputs); I4-I7 can be high-speed ports | 8 points PNP transistor output Q2、Q3 can be high-speed output ports |

| | | | |
|-----------|-------------|---|--|
| APB-24MRD | DC12V-24V | 2points for current input, and 14points for digital input (the first 12 points can be 0~10V analog inputs); I4-I7 can be high-speed ports | 6 points relay output + 2 analog outputs |
| APB-22ERA | AC100V-240V | 14 points digital input | 8 points relay output |
| APB-22ERD | DC12V-24V | 14 points digital input | 8 points relay output |
| APB-22ETD | DC12V-24V | 14 points digital input | 8 point NPN transistor output |
| APB-22EGD | DC12V-24V | 14 points digital input | 8 point NPN transistor output |



Dimensions

Take the 12 points module as an example. The 12 points, 22 points, and 24 points modules and other extension modules share the same width and height, the only one difference exists in the length.



| Type | Dimensions(mm) |
|-----------------------|----------------|
| 12 points main module | 71*99*90 |
| 22 points main module | 126*99*90 |
| 24 points main module | 126*99*90 |
| I/O extension module | 126*99*90 |
| SMS extension module | 71*99*90 |