



### Features

- FBD + LD System.
- Support start-up screen (108×64 pixels)
- Multiple communication port.
- Password protection, copy protection.
- 104 FBD integrated functions, 97 LD integrated functions, pre-tested functions.
- Linking of 1024 function block is possible.
- Display of message texts, adjust program parameter.
- Integrated data latch.
- Flexibly expandable up to 10000 points.
- Support full modbus protocol.
- Free PC software Mindman Editor + Mindman Utility.

### Order example

MA — 1188 — T



Model	Type instruction	
MA-1188	Digital Inputs	LED indicator.
MA-1188D		LCD monitor.
MA-1189	Digital & Analog Inputs	LED indicator.
MA-1189D		LCD monitor.

### Specification

Model	MA-1188 MA-1188-T	MA-1188D MA-1188D-T	MA-1189 MA-1189-T	MA-1189D MA-1189D-T		
Digital inputs	8		8			
Analog inputs	—		4 (able to use in digital specification)			
Digital outputs	4		4			
Input voltage range	Digital ON: 4~30 VDC / OFF: 2 VDC(max)		Digital ON: 4~30 VDC / OFF: 2 VDC(max)			
			Analog: 0~10VDC			
Continuous current	Relay: 5A for resistive load, 2A for inductive load; Transistor: 10-60VDC/1.75A(OCP/OTP/UVLO)					
Incoming power	10 ~ 30 VDC					
Reserve power	> 10 years					
Operation temperature	-20~+75°C (No freezing)					
Storage temperature	-25~+80°C (No freezing)					
Linking of functions	1024 (max.)					
Real time clock	Yes / > 2 years					
Protocols	Modbus ASCII + Modbus RTU					
Incorporate operator interface	Yes (Modbus interface)					
Expansion maximum I/O	More than 10,000					
Input operating frequency	250KHz (DI0-DI3)					
Output operating frequency	100KHz					
Message text/ display	4 lines of 12 characters					
Communication port	RS232×1	RS485×2 +RS232×1	RS485×2 +RS232×1	RS232×1	RS485×2 +RS232×1	RS485×2 +RS232×1
Size (L×W×H)	120×77×40 mm (with bracket)					

### Application software



#### Mindman editor

- Support Model: MA series distributed control system
- Support OS: Windows 98 / ME / 2000 / XP / Vista / Window7



#### Mindman utility

- Support Model: MA series distributed control system / MA series remote modules
- Support OS: Window98 / ME / 2000 / XP / Vista / Window 7



#### MA-152\*U driver / AMB128 driver

- Support Model: MA series industrial communication/ MA series memory card
- Support OS: Window98 / ME / 2000 / XP / Vista (32/64 bit) / Window 7(32/64 bit) / WinCE / Linux / Mac



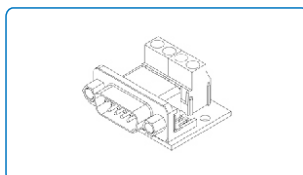
#### MA-1571U driver

- Support Model: MA series industrial communication
- Support OS: Window98 / ME / 2000 / XP / Vista (32/64 bit) / Window 7(32/64 bit) / WinCE / Linux / Mac / Window Server 2008 R2 / Android

### Accessories

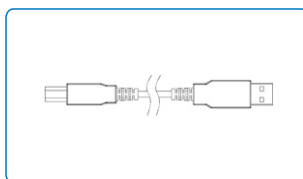
#### ADP090401

- All type
- Adapter board



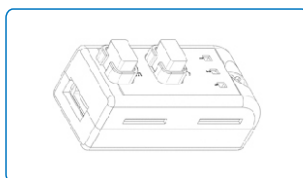
#### USB1800

- MA series converter
- USB cable



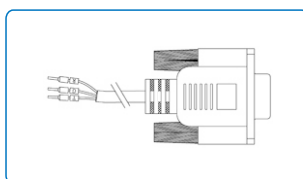
#### AMB128

- MA series DCS series
- Memory card



#### DSCAB

- MA series DCS series
- Adapter cable



### Applicable model

MA-1188\*, MA-1189\*  
MA-1520, MA-1521,  
MA-10\*\*,  
MA-3016

MA-1520U, MA-1521U,  
MA-1571U

MA-1188\*, MA-1189\*

MA-1188\*, MA-1189\*