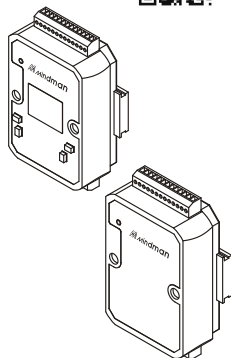




## Features

- 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

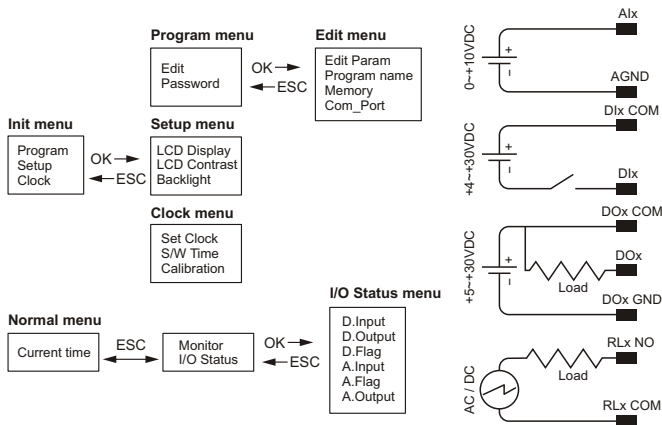
Blank: Relay output  
T: Transistor output

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
Inputs	8			
Analog inputs	—		4 (10-bit)	
Outputs	4			
Supply voltage	10~30 VDC			
Continuous current	Relay: 5A for resistive load, 2A for inductive load; Transistor: 10-60VDC/1.75A(OCP/OTP/UVLO)			
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			
Input operating frequency	250KHZ			
Output operating frequency	100KHZ			
Communication port	3	3	3	3
Display	—	YES	—	YES
Input/Output LED	YES	—	YES	—

MA-1188*		MA-1189*	
DI0-DI7	Digital—1: 4~30 VDC 0: 2 VDC(max)	DI0-DI3	Digital—1: 4~30 VDC 0: 2 VDC(max)
—	—	AI0-AI3=DI4-DI7	Anglog—0~10 VDC Digitals—1: 4~10 VDC 0: 2 VDC(max)
High speed input	DI0~DI3(15KHz)	High speed input	DI0~DI3(15KHz)
DI / DO	8 / 4	DI / DO / AI	8 / 4 / 4
Real time clock	Yes	Real time clock	Yes
Communication ports	RS232×1+RS485×2 or RS232×1	Communication ports	RS232×1+RS485×2 or RS232×1



### Warning:

Hazardous voltage can cause electrical shock and burns. Disconnect power before proceeding with any work on this equipment.

### Limitations:

When this product is used for the equipment with special safety requirements or on the important occasions, please pay attention especially to the safety of whole system and devices. If it is necessary, please install the safety device to do extra check and timing test and other safety precautions.

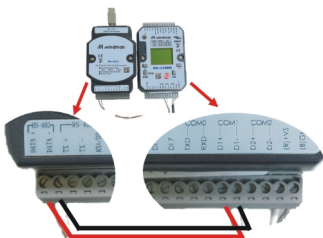
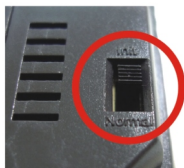
For further information, please visit: <http://www.mindman.com.tw>

**Step 1.** Prepare distributed control system and converter or DSCAB.



**Step 2.** Turn to init.

**Step 3.** Link distributed control system to converter via twisted pair cable.

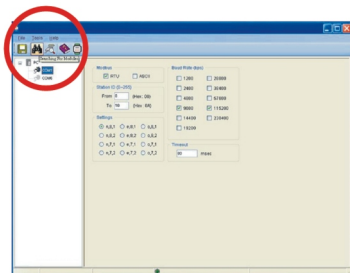


**Step 4.** or linked DSCAB

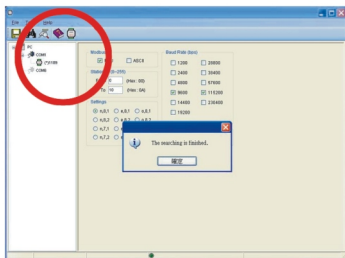
**Step 5.** Open power.



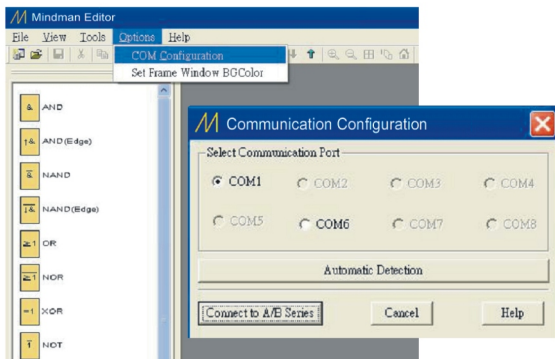
**Step 6.** Click Mindman utility and search the device.



**Step 7.** Searching is finished.



**Step 8.** Click Mindman Editor to confirm DCS com port.



**Step 9.** Now you can compile program via Mindman Editor.