

**Features:**

- RS-485 Interface.
- Supports Modbus RTU / ASCII.
- LED Indicators.
- Isolation voltage: 5000 VDC.
- Dual watchdog timer.
- Surge, EFT and ESD protection.
- Free PC software Mindman Utility.

**Order example:**

MA – 1055S

MODEL

MA-1057

MA-1058

MA-1068

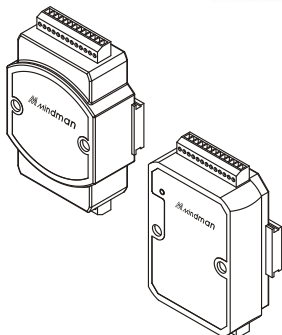
MA-1069

MA-1051

MA-1055

MA-1055S

MA-1060

**Specification:**

Model	MA-1057	MA-1058	MA-1068	MA-1069	MA-1051	MA-1055	MA-1055S	MA-1060
Output	12	12	8	8	—	8	8	4
Input	—				16	8	8	8
Power consumption	Nearly 24 VDC 0.96W	Nearly 24 VDC 0.96W	Nearly 24 VDC 1.68W	Nearly 24 VDC 2.88W	Nearly 24 VDC 1.66W	Nearly 24 VDC 1.28W	Nearly 24 VDC 1.28W	Nearly 24 VDC 2.26W
Input power	+10~+30VDC							
Output type	Source	Sink	Signal Relay	Power Relay	—	Sink	Source	Power Relay
Input type	—				Isolated Digital			
Input rating (Isolation)	10 ~ 35 VDC/1A	40VDC /200mA	120VAC /0.5A 30V/1A	250VAC /5A 30VDC/5A	—	40VDC /200mA	10 ~ 35 VDC/1A	250VAC /5A 30VDC/5A
Output rating (max.)	—				Logic level 0: +1 V max. Logic level 1: +3.5 ~ 30 V			
Operation temperature	-20~+75°C (No freezing)							
Isolation voltage	5000 VDC							
LED	YES							
Modbus support	Modbus RTU + Modbus ASCII							
Watchdog timer	System m & Comm.							
Size (L×W×H)	120 × 77 × 40 mm (with bracket)							

## Address Mapping:

Supported Modbus Code: 01/02/05/15 (Readable &amp; writable in normal &amp; initial mode)

Address	Description	NOR	INIT*	NOTE
00001~00016	0~15 DI Input Value	R	R	(0/1)
00017~00032	0~15 Digital Output Value	R/W	R/W	(0/1)
00033~00048	0~15 Power On Digital Output Value	R	R/W	(0/1)
00049~00064	0~15 Communication Fail Safe Value	R	R/W	(0/1)
04097~06144	M0~M2047 Virtual M Flag	R/W	R/W	(0/1)
06145~06400	RM0~RM255 Retentivity Virtual M Flag	R/W	R/W	(0/1)

Supported Modbus Code: 03/04/06 (Readable &amp; writable in normal &amp; initial mode)

Address	Description	NOR	INIT*	NOTE
40001~40016	0~15 Analog Input Value	R	R	
40017~40032	0~15 Analog Output Value	R/W	R/W	
40033~40048	0~15 0~15 Power On Analog Output Value	R	R/W	
40049~40064	0~15 Communication Fail Safe Analog Output Value	R	R/W	
40065	Communication Fail Safe Time Setting Value( 0.0~6553.5 sec)	R	R/W	
40211	Module Name 1	R	R	
40212	Module Name 2	R	R	
40213	Soft Version 1	R	R	
40214	Soft Version 2	R	R	
40215	Communication Safety Enabled	R	R	
40216	Communication Safety Flag	R	R	
40217	Module Serial Number 1	R	R	
40218	Module Serial Number 2	R	R	
40219	Module Serial Number 3	R	R	
40220	Module Serial Number 4	R	R	
40221	Module Serial Number 5	R	R	
40222	Module Serial Number 6	R	R	
40223	Module internal temperature	R	R	
40224	Module History temperature (Min) °C	R	R	
40225	Module History temperature (Max) °C	R	R	
40300	Module's ID in normal mode	R	R/W	1~255
40301	Protocol in normal mode	R	R/W	0 : RTU 1 : ASCII
40302	Baud rate in normal mode	R	R/W	
40303	Parity option in normal mode	R	R/W	0 : None 1 : Odd 2 : Even
40304	Stop bits in normal mode	R	R/W	0 : 1 bit 1 : 2 bit
40305	Normal Mode Time Out Setting	R	R/W	0~65535 msec
40409~40424	DI0~ DI15 Signal Count Value (16-Bit)	R/W	R/W	
40425~40456	DI0~ DI15 Signal Count Value (32-Bit)	R/W	R/W	
40457~40520	DI0~ DI15 Signal Count Value (64-Bit)	R/W	R/W	
40521~40536	AI0~ AI15 Analog Input HI-LO Level Value	R	R/W	
44001~46048	AM0~AM2047 Virtual Analog M Flag	R/W	R/W	
46049~46112	RAM0~RAM63 Retentivity Virtual Analog M Flag	R/W	R/W	

