MAX-WARE
INDUSTRY

MX1-MB-8AI

MODBUS DATA ACQUISITION MODULE

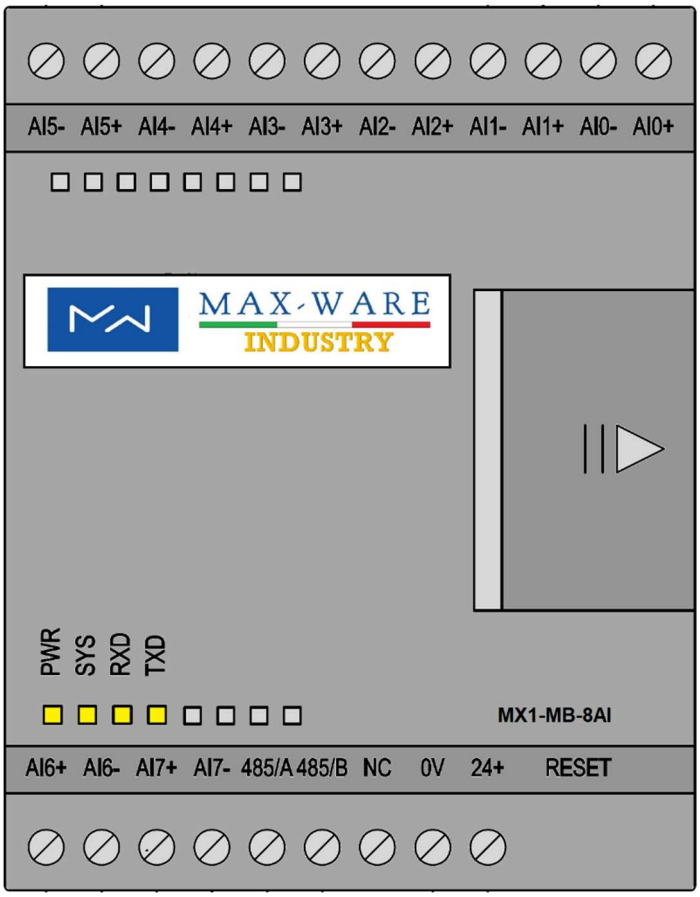


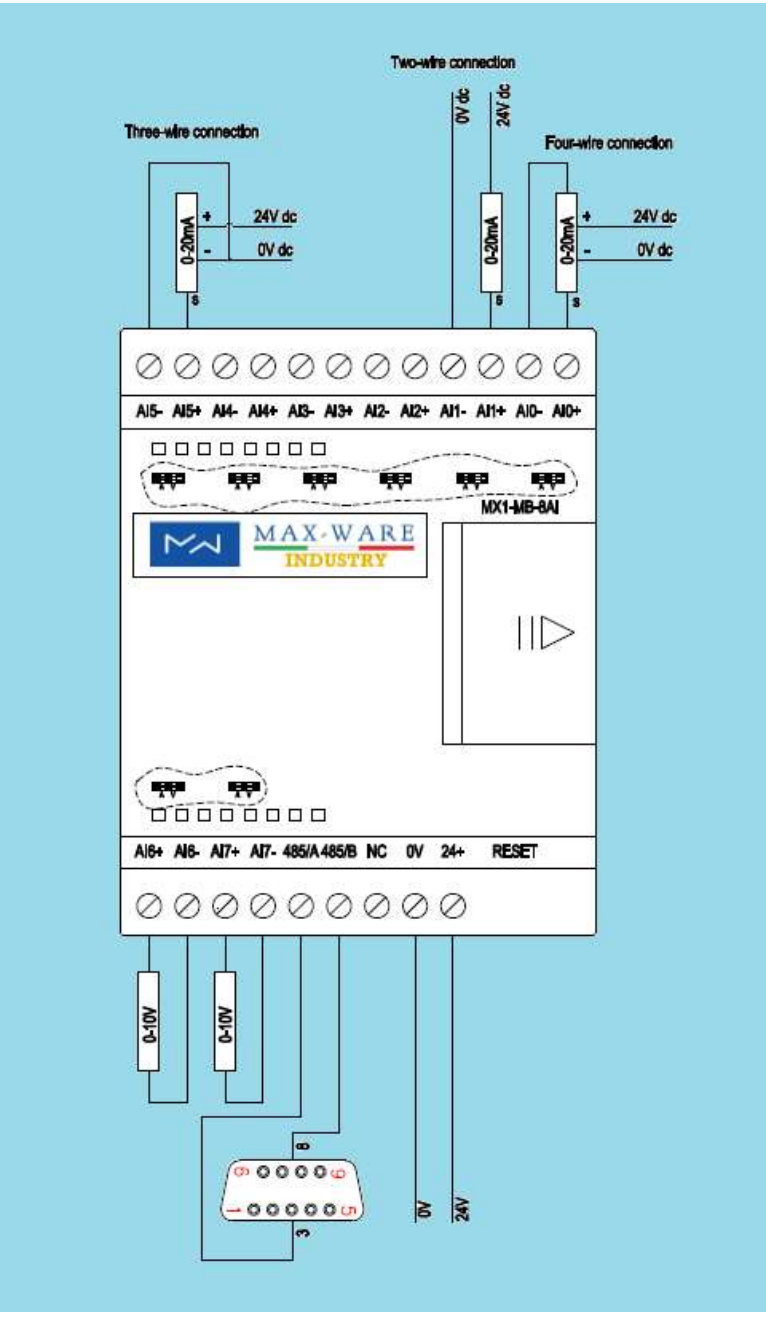
TABLE OF CONTENT

Sommario

1 PRODUCT SPECIFICATION

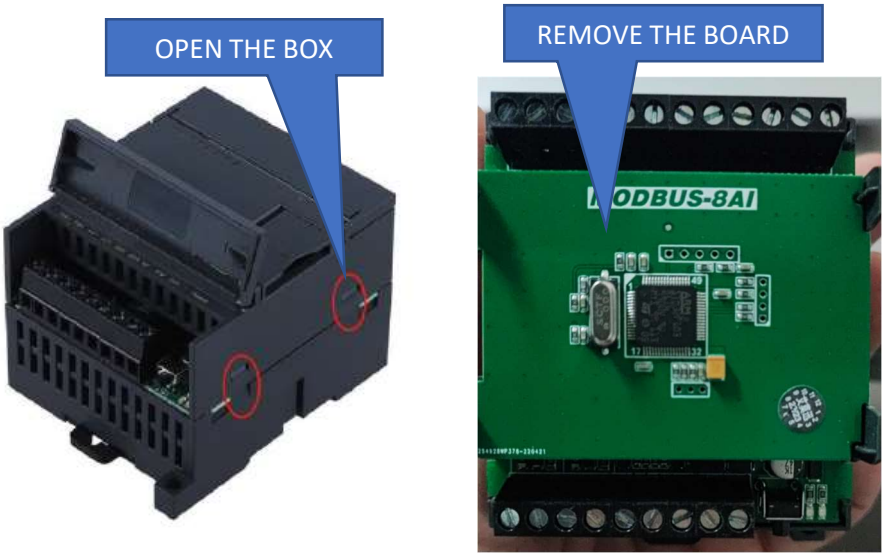
DIGITAL INPUT	NO
DIGITAL OUTPUT	NO
ANALOGIC INPUT	8 ANALOG INPUT Type: 0-10v or 0..20ma Conversion accuracy current: 12bit (0-4096 INT) Conversion accuracy voltage: 13bit (0-8192 INT) Jumper selection mode. Default current
ANALOGIC OUTPUT	NO
COM PORT 1	Type: RS485 2 wire A-B Baudrate: 1200-115200 (cfg) Comunication format: Default 8-bit data, 1-bit stop, no check (cfg) Address range: 1-254 Trasmission distance: 1200m Comunication mode: MODBUS RTU slave
COM PORT 2	NO
ETHERNET PORT	NO
POWER	Operating voltage: DC 24V; with anti-reverse protection Power consuption: 2–4 W
TEMPERATURE	-20℃ +70℃
DIMENSIONS	70MM (length) * 80MM (width) * 60MM (height
INSTALLATION MODE	Guide rail DIN

2 WIRING


Two-wire connection
0V dc
24V dc
Three-wire connection
Four-wire connection
0-20mA
+
-
24V dc
0V dc
S
AI5- AI5+ AI4- AI4+ AI3- AI3+ AI2- AI2+ AI1- AI1+ AI0- AI0+
MX1-MB-8AI
MAX-WARE
INDUSTRY
AI6+ AI6- AI7+ AI7- 485/A 485/B NC 0V 24+ RESET
0-10V
0-10V
8
1
3
0V
24V

PIN ASSIGNEMENT					
AI0+	Ch1 input +	AI0-	Ch1 input -	24+	24VDC
AI1+	Ch2 input +	AI1-	Ch2 input -	0V	0 VDC
AI2+	Ch3 input +	AI2-	Ch3 input -	B	B MODBUS
AI3+	Ch4 input +	AI3-	Ch4 input -	A	A MODBUS
AI4+	Ch5 input +	AI4-	Ch5 input -		
AI5+	Ch6 input +	AI5-	Ch6 input -		
AI6+	Ch7 input +	AI6-	Ch7 input -		
AI7+	Ch8 input +	AI7-	Ch8 input -		

3 ANALOGIC INPUT CONFIGURATION

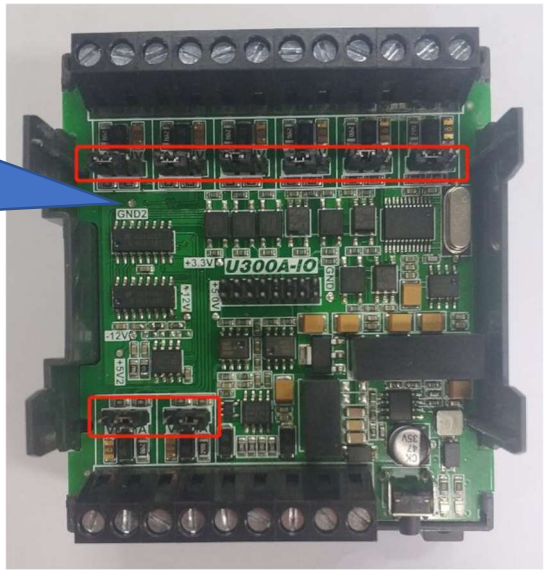


MOVE THE JUMPER:

V= VOLTAGE

A= CURRENT

DEFAULT POSITION = A



PLUG AND UNPLUG JUMPER CAP MUST BE OPERATED UNDER MODULE POWER FAILURE

4 COMMUNICATION FUNCTION

SERIAL PORT FUNCTION

PORT	SUPPORT FUNCTION	MAX CONNECTION	DESCRIPTION
COM 1	MODBUS RTU SLAVE	1	MODBUS RTU SLAVE

5 RESTORE TO FACTORY DEFAULT

Re-power, effective within 1 minute, long press reset button indicator light flashing 6 times after release, the indicator light will always light for about 3 seconds and then resume the slow flash that the reset is successful

Parameter Name	Parameter Default Value
Module Address	1
Baud rate	9600
Serial communication parameters	8 bits of data, 1 bit of stop bit, no parity
Serial port mode	MODBUS RTU SLAVE
Bus error mode	Output reset

6 MODBUS ADDRESS TABLE

NAME	PLC ADDRESS	MODBUS ADDRESS	FUNCTION
ANALOG INPUT CH 1	30001	0x00	0x04
ANALOG INPUT CH 2	30002	0x01	0x04
ANALOG INPUT CH 3	30003	0x02	0x04
ANALOG INPUT CH 4	30004	0x03	0x04
ANALOG INPUT CH 5	30005	0x04	0x04
ANALOG INPUT CH 6	30006	0x05	0x04
ANALOG INPUT CH 7	30007	0x06	0x04
ANALOG INPUT CH 8	30008	0x07	0x04
SYSTEM			
NAME	MODBUS ADDRESS	default	

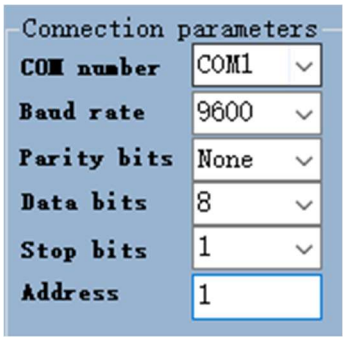
7 CONFIGURATION

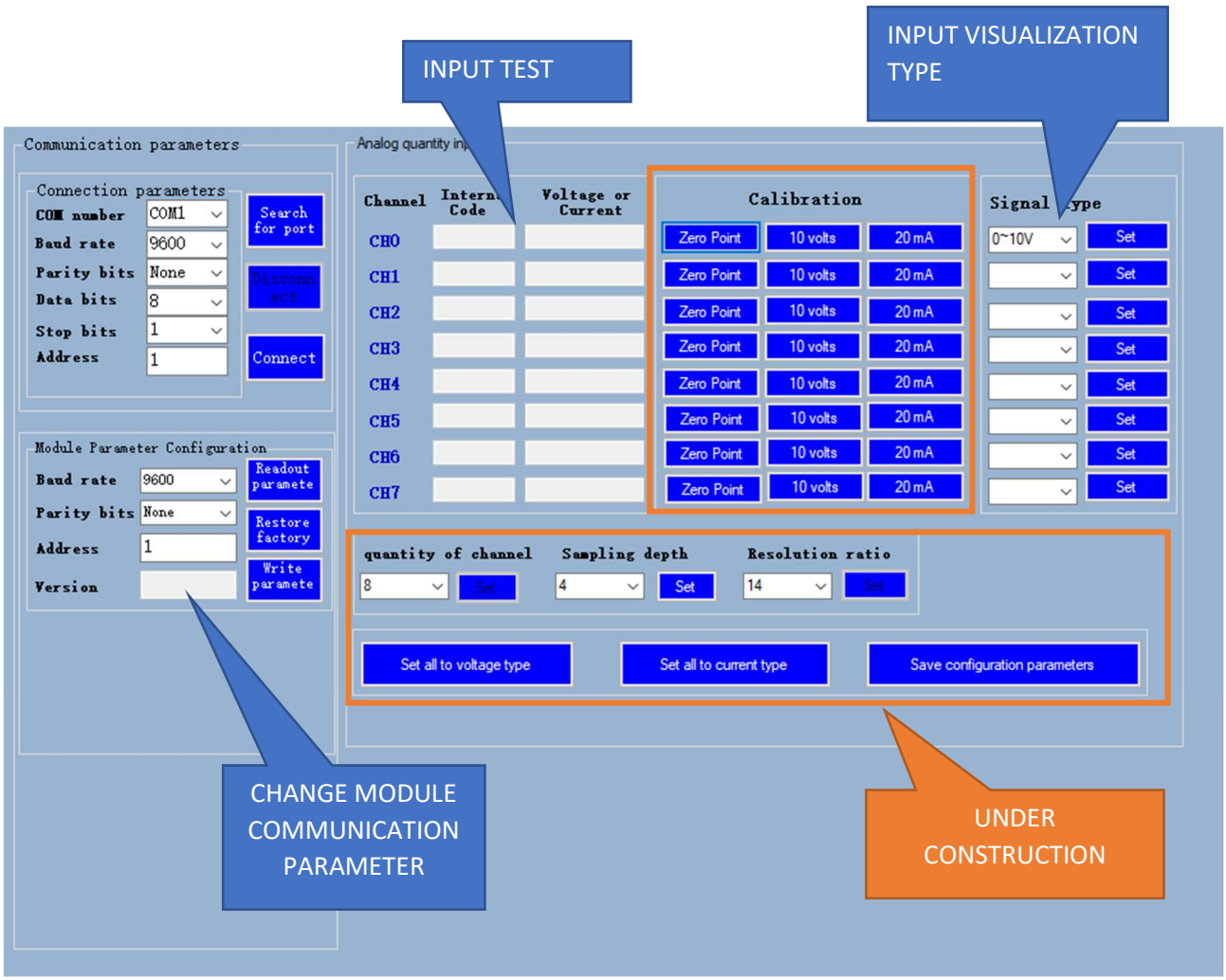
Use 485 interface and software for the configuration.

Software link: DOWNLOAD (www.max-ware.it/DOWNLOAD/MX1-SOFT-CONF.zip)

Interface type: 485-usb interface (MX1-MB-INTERFACE)

Default connection parameter:





After each change a reboot is necessary