MAX-WARE
INDUSTRY

MX1-MB-32DI

MODBUS DATA ACQUISITION MODULE

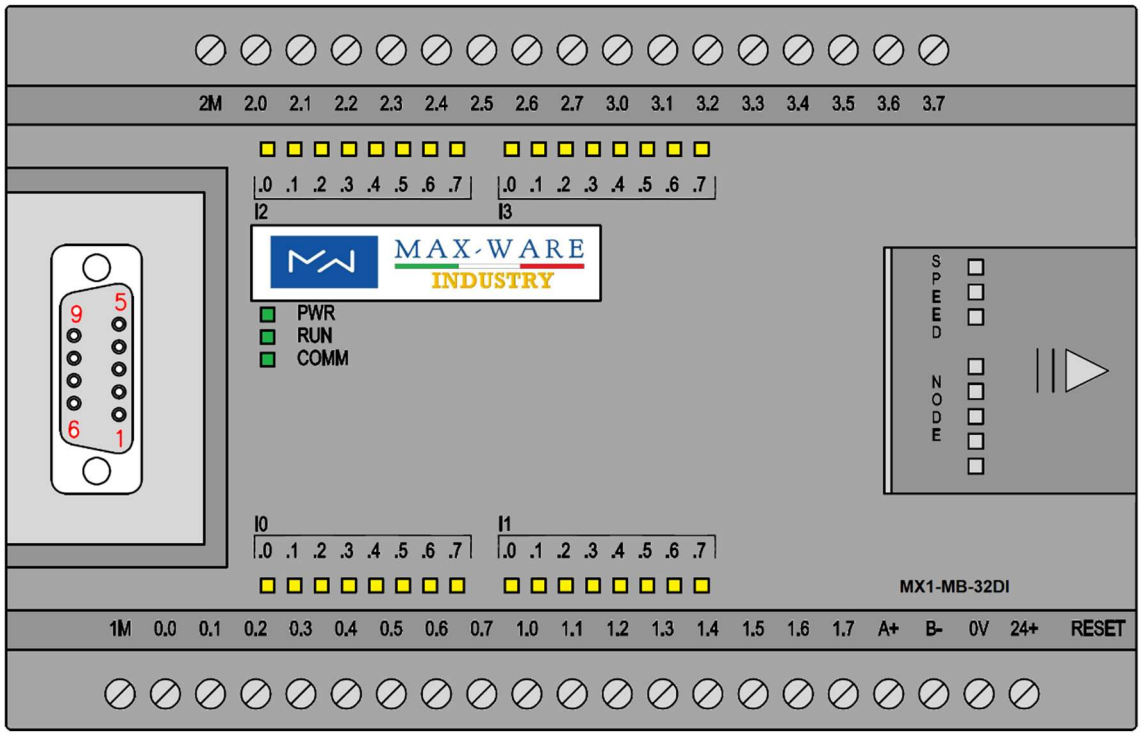


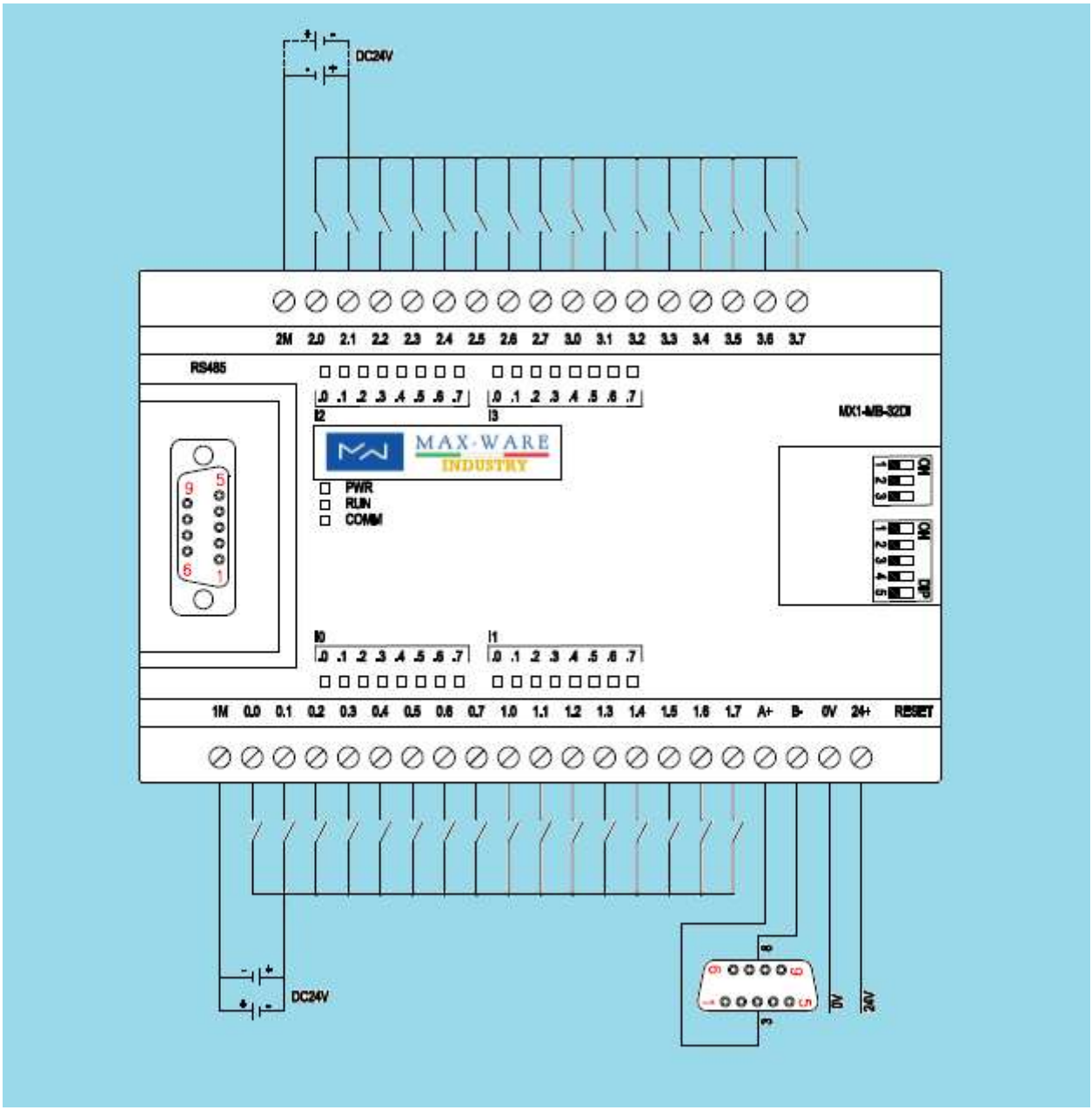
TABLE OF CONTENT

Sommario

1 PRODUCT SPECIFICATION

DIGITAL INPUT	32 DIGITAL INPUT Switch contact signal or level signal (PNP or NPN) Effective range: dc 20-28 vdc Optocupler isolation
DIGITAL OUTPUT	NO
ANALOGIC INPUT	NO
ANALOGIC OUTPUT	NO
COM PORT 1	Type: RS485 2 wire A-B Baudrate: 4800-115200 (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	125MM (length) * 80MM (width) * 50MM (height
INSTALLATION MODE	Guide rail DIN

2 WIRING


DC24V
2M 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7
RS485
I2
I3
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PWR
RUN
COM
MX1-MB-32DI
ON
DIP
I0
I1
1M 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 A+ B- 0V 24+ RESET
DC24V
0V
24V

DIGITAL INPUT		DIGITAL INPUT		POWER	
1M	Com 0.0 - 1.7	2M	Com 2.0 - 3.7	24+	24VDC
0.0	Ch1 digital input	2.0	Ch17 digital input	0V	0 VDC
0.1	Ch2 digital input	2.1	Ch18 digital input	COM 1	
0.2	Ch3 digital input	2.2	Ch19 digital input	A	A+
0.3	Ch4 digital input	2.3	Ch20 digital input	B	B-
0.4	Ch5 digital input	2.4	Ch21 digital input		
0.5	Ch6 digital input	2.5	Ch22 digital input		
0.6	Ch7 digital input	2.6	Ch23 digital input		
0.7	Ch8 digital input	2.7	Ch24 digital input		
1.0	Ch9 digital input	3.0	Ch25 digital input		
1.1	Ch10 digital input	3.1	Ch26 digital input		
1.2	Ch11 digital input	3.2	Ch27 digital input		
1.3	Ch12 digital input	3.3	Ch28 digital input		
1.4	Ch13 digital input	3.4	Ch29 digital input		
1.5	Ch14 digital input	3.5	Ch30 digital input		
1.6	Ch15 digital input	3.6	Ch31 digital input		
1.7	Ch16 digital input	3.7	Ch32 digital input		

3 NODE CONFIGURATION

Dip switch speed of COM 1 

1	2	3	speed
OFF	OFF	OFF	9600
ON	OFF	OFF	19200
OFF	ON	OFF	38400
ON	ON	OFF	57600
OFF	OFF	ON	115200
ON	OFF	ON	9600
OFF	ON	ON	9600
ON	ON	ON	4800

Dip switch node of COM 1 

1	2	3	4	5	node
OFF	OFF	OFF	OFF	OFF	1
ON	OFF	OFF	OFF	OFF	2
OFF	ON	OFF	OFF	OFF	3
ON	ON	OFF	OFF	OFF	4
OFF	OFF	ON	OFF	OFF	5
ON	OFF	ON	OFF	OFF	6
OFF	ON	ON	OFF	OFF	7
ON	ON	ON	OFF	OFF	8
OFF	OFF	OFF	ON	OFF	9
ON	OFF	OFF	ON	OFF	10
OFF	ON	OFF	ON	OFF	11
ON	ON	OFF	ON	OFF	12
OFF	OFF	ON	ON	OFF	13
ON	OFF	ON	ON	OFF	14
OFF	ON	ON	ON	OFF	15
ON	ON	ON	ON	OFF	16
OFF	OFF	OFF	OFF	ON	17
ON	OFF	OFF	OFF	ON	18
OFF	ON	OFF	OFF	ON	19
ON	ON	OFF	OFF	ON	20
OFF	OFF	ON	OFF	ON	21
ON	OFF	ON	OFF	ON	22
OFF	ON	ON	OFF	ON	23
ON	ON	ON	OFF	ON	24
OFF	OFF	OFF	ON	ON	25
ON	OFF	OFF	ON	ON	26
OFF	ON	OFF	ON	ON	27
ON	ON	OFF	ON	ON	28
OFF	OFF	ON	ON	ON	29
ON	OFF	ON	ON	ON	30
OFF	ON	ON	ON	ON	31
ON	ON	ON	ON	ON	32

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 run light flashing 6 times after release, the run light will flashing fast than 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
DIGITAL INPUT CH 1	10001	0x00	0x02
DIGITAL INPUT CH 2	10002	0x01	0x02
DIGITAL INPUT CH 3	10003	0x02	0x02
DIGITAL INPUT CH 4	10004	0x03	0x02
DIGITAL INPUT CH 5	10005	0x04	0x02
DIGITAL INPUT CH 6	10006	0x05	0x02
DIGITAL INPUT CH 7	10007	0x06	0x02
DIGITAL INPUT CH 8	10008	0x07	0x02
DIGITAL INPUT CH 9	10009	0x08	0x02
DIGITAL INPUT CH 10	10010	0x09	0x02
DIGITAL INPUT CH 11	10011	0x10	0x02
DIGITAL INPUT CH 12	10012	0x11	0x02
DIGITAL INPUT CH 13	10013	0x12	0x02
DIGITAL INPUT CH 14	10014	0x13	0x02
DIGITAL INPUT CH 15	10015	0x14	0x02
DIGITAL INPUT CH 16	10016	0x15	0x02
DIGITAL INPUT CH 17	10017	0x16	0x02
DIGITAL INPUT CH 18	10018	0x17	0x02
DIGITAL INPUT CH 19	10019	0x18	0x02
DIGITAL INPUT CH 20	10020	0x19	0x02
DIGITAL INPUT CH 21	10021	0x20	0x02
DIGITAL INPUT CH 22	10022	0x21	0x02
DIGITAL INPUT CH 23	10023	0x22	0x02
DIGITAL INPUT CH 24	10024	0x23	0x02
DIGITAL INPUT CH 25	10025	0x24	0x02
DIGITAL INPUT CH 26	10026	0x25	0x02
DIGITAL INPUT CH 27	10027	0x26	0x02
DIGITAL INPUT CH 28	10028	0x27	0x02
DIGITAL INPUT CH 29	10029	0x28	0x02
DIGITAL INPUT CH 30	10030	0x29	0x02
DIGITAL INPUT CH 31	10031	0x30	0x02
DIGITAL INPUT CH 32	10032	0x31	0x02

SYSTEM			
NAME	MODBUS ADDRESS	default	

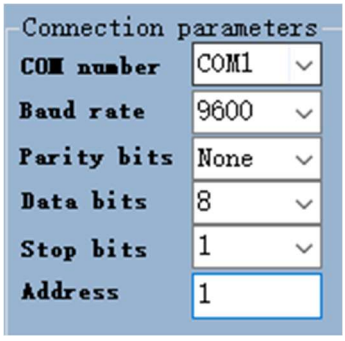
7 CONFIGURATION

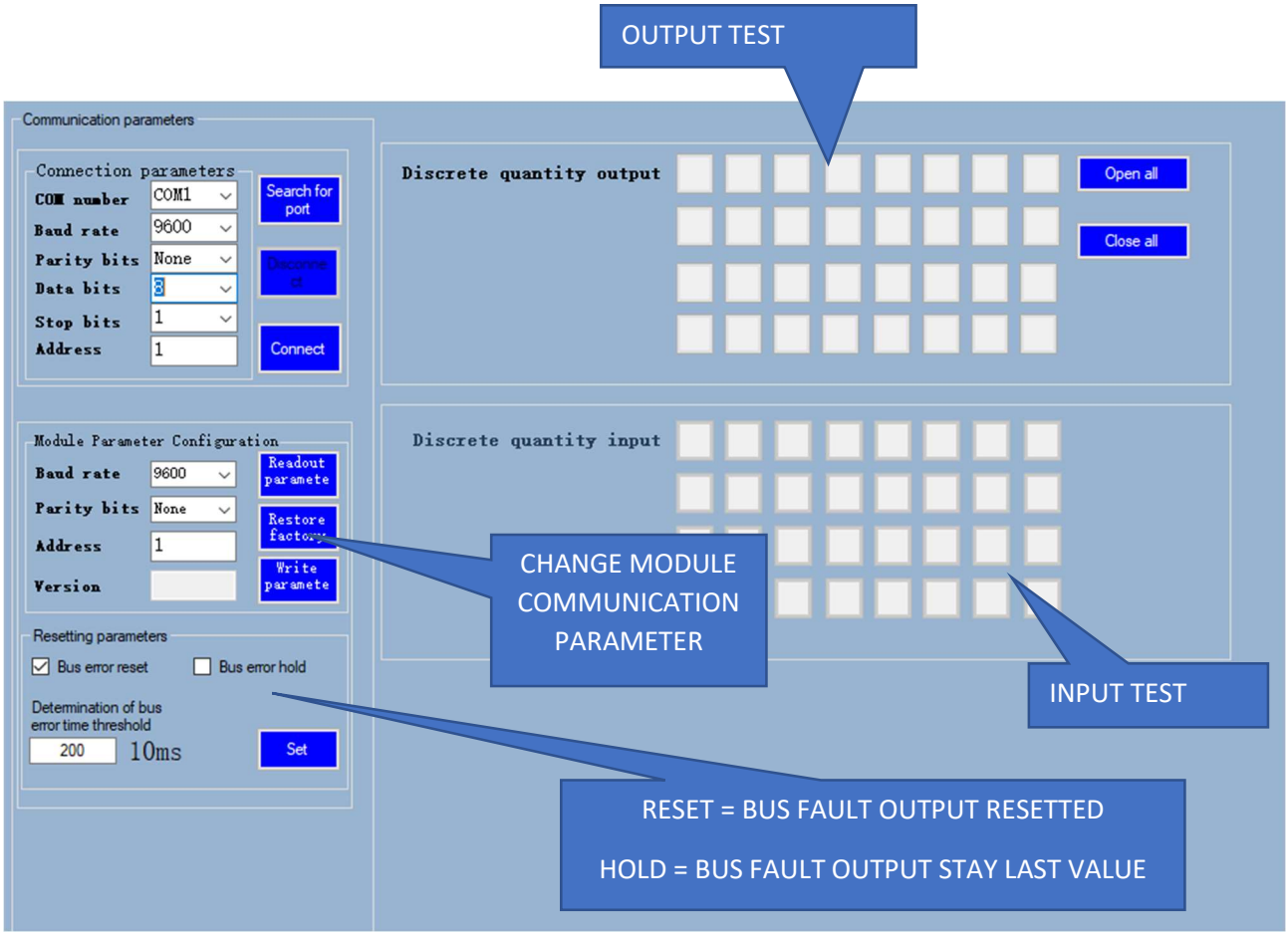
Use 485 interface and software for the configuration.

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