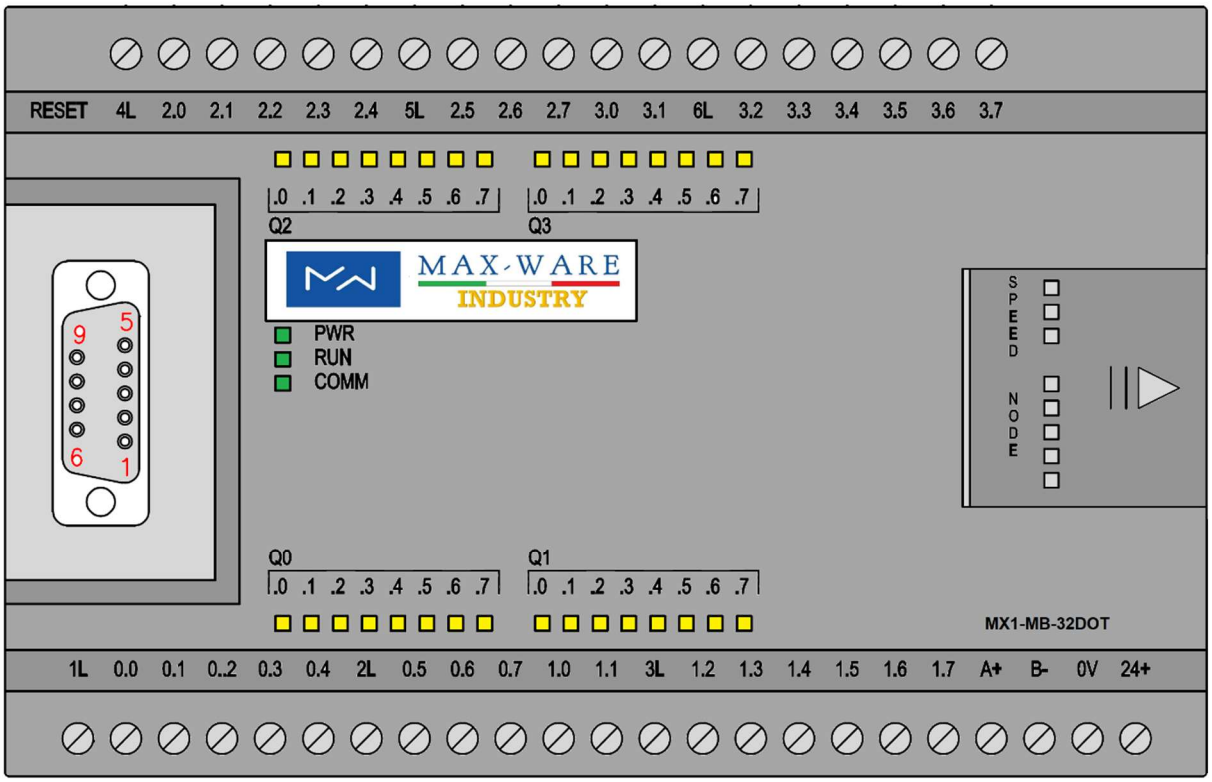
MAX-WARE
INDUSTRY

MX1-MB-32DOT

MODBUS DATA ACQUISITION MODULE



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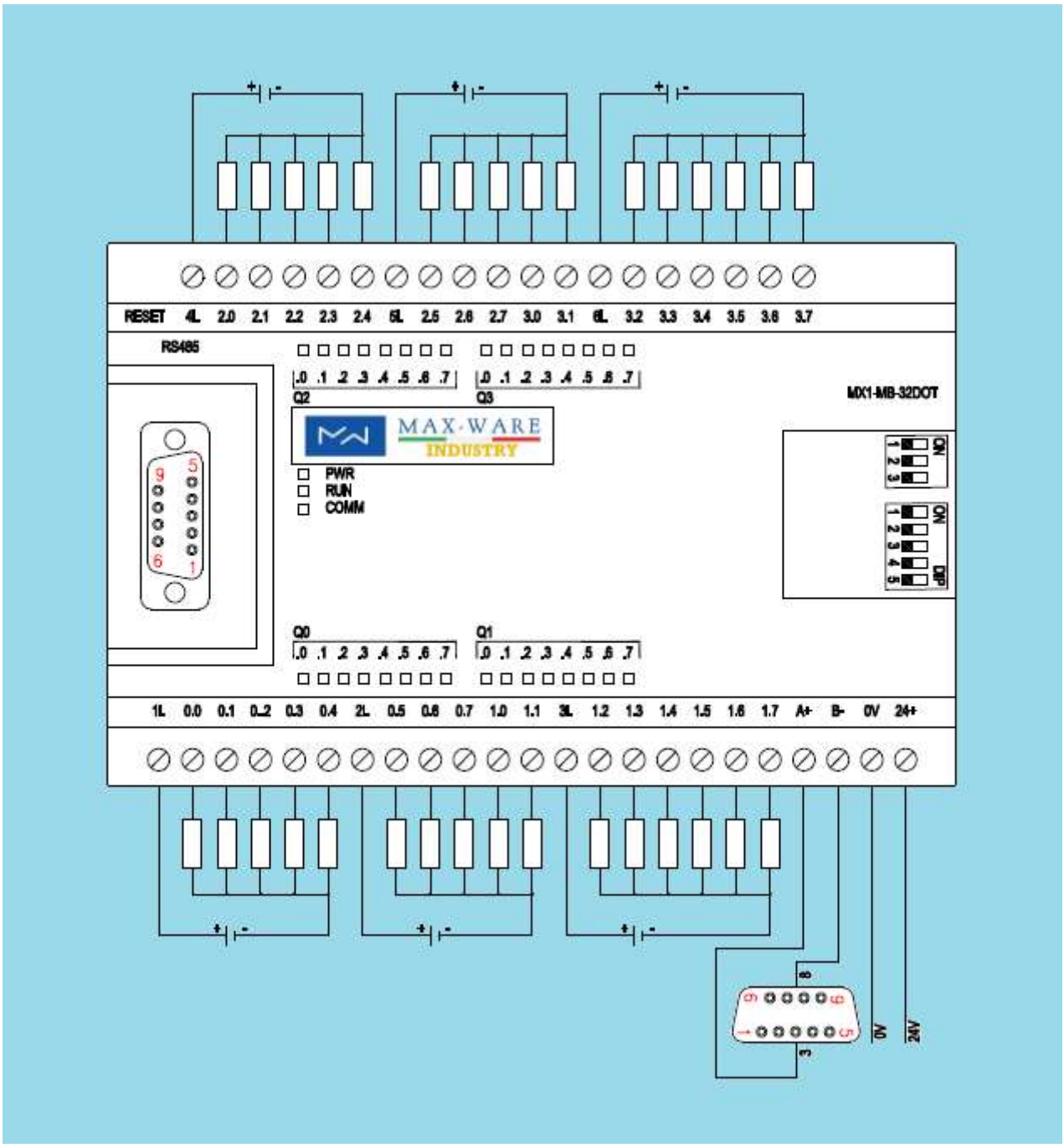
Sommario

1 PRODUCT SPECIFICATION

DIGITAL INPUT	NO
DIGITAL OUTPUT	32 DIGITAL OUTPUT PNP transistor output Contact capacity: dc 3A/24V
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


RESET
RS485
Q2
Q3
Q0
Q1
PWR
RUN
COMM
MX1-MB-32DOT
ON
DIP
1L 0.0 0.1 0.2 0.3 0.4 2L 0.5 0.6 0.7 1.0 1.1 3L 1.2 1.3 1.4 1.5 1.6 1.7 A+ B- 0V 24+
0V
24V

DIGITAL INPUT		DIGITAL INPUT		POWER	
1L	Com 0.0 - 0.4	4L	Com 2.0 – 2.4	24+	24VDC
0.0	Ch1 digital output	2.0	Ch17 digital output	0V	0 VDC
0.1	Ch2 digital output	2.1	Ch18 digital output	COM 1	
0.2	Ch3 digital output	2.2	Ch19 digital output	A	A+
0.3	Ch4 digital output	2.3	Ch20 digital output	B	B-
0.4	Ch5 digital output	2.4	Ch21 digital output		
0.5	Ch6 digital output	2.5	Ch22 digital output		
0.6	Ch7 digital output	2.6	Ch23 digital output		
0.7	Ch8 digital output	2.7	Ch24 digital output		
1.0	Ch9 digital output	3.0	Ch25 digital output		
1.1	Ch10 digital output	3.1	Ch26 digital output		
1.2	Ch11 digital output	3.2	Ch27 digital output		
1.3	Ch12 digital output	3.3	Ch28 digital output		
1.4	Ch13 digital output	3.4	Ch29 digital output		
1.5	Ch14 digital output	3.5	Ch30 digital output		
1.6	Ch15 digital output	3.6	Ch31 digital output		
1.7	Ch16 digital output	3.7	Ch32 digital output		
2L	Com 0.5 - 1.1	5L	Com 2.5 – 3.1		
3L	Com 1.2 - 1.7	6L	Com 3.2 – 3.7		

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 OUTPUT CH 1	1	0x00	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 2	2	0x01	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 3	3	0x02	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 4	4	0x03	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 5	5	0x04	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 6	6	0x05	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 7	7	0x06	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 8	8	0x07	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 9	9	0x08	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 10	10	0x09	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 11	11	0x10	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 12	12	0x11	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 13	13	0x12	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 14	14	0x13	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 15	15	0x14	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 16	16	0x15	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 17	17	0x16	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 18	18	0x17	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 19	19	0x18	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 20	20	0x19	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 21	21	0x20	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 22	22	0x21	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 23	23	0x22	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 24	24	0x23	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 25	25	0x24	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 26	26	0x25	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 27	27	0x26	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 28	28	0x27	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 29	29	0x28	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 30	30	0x29	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 31	31	0x30	0x01 , 0x05 , 0x0F
DIGITAL OUTPUT CH 32	32	0x31	0x01 , 0x05 , 0x0F

SYSTEM			
NAME	MODBUS ADDRESS	default	

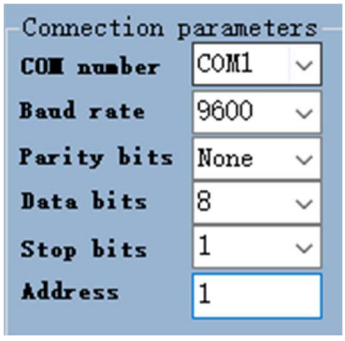
7 CONFIGURATION

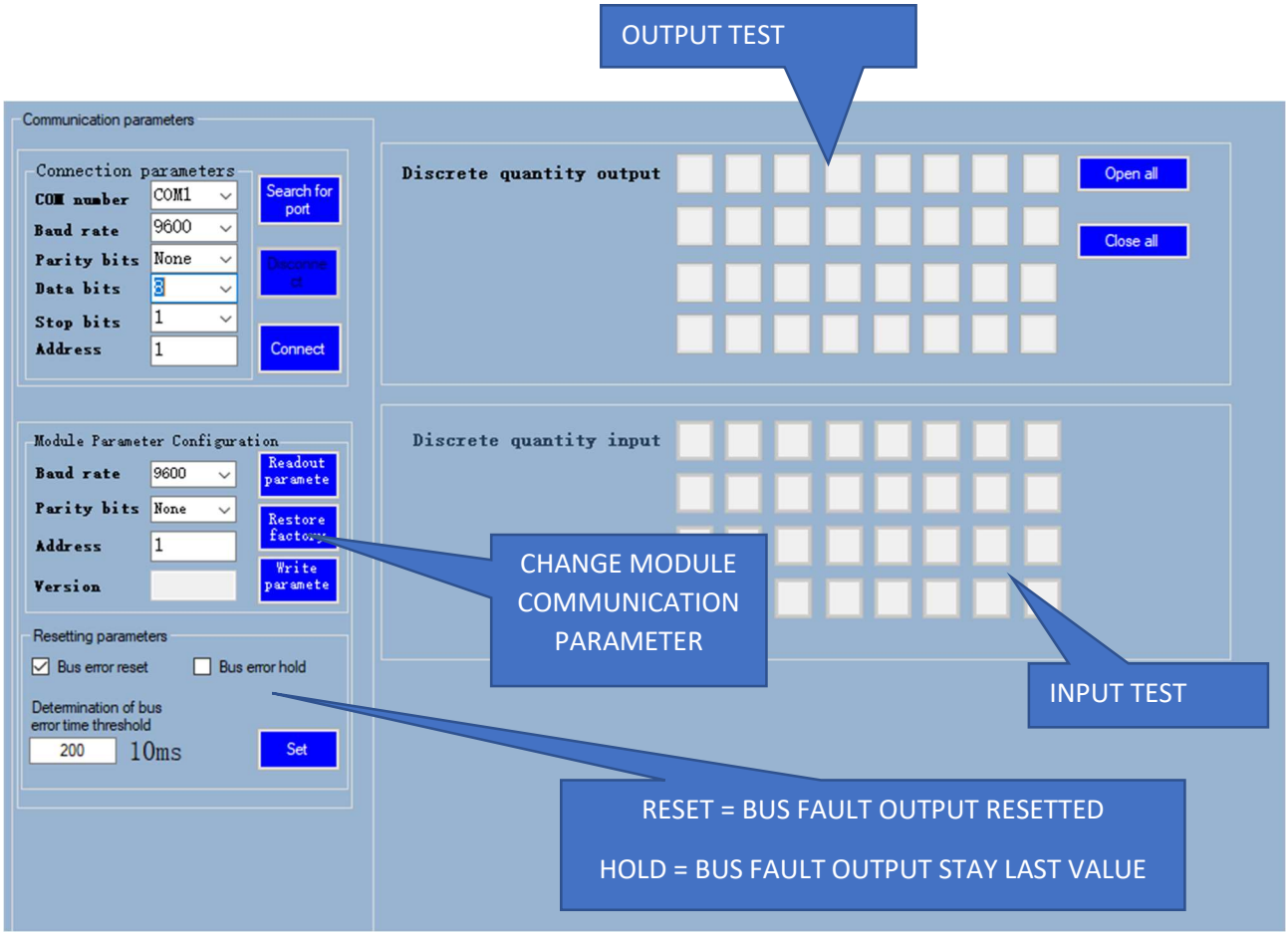
Use 485 interface and software for the configuration.

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