

ZERO ONE Pneumatic Modbus Instructions

This document applies to pneumatic boards LYK8-080 and LYK8-VGA.

In order to facilitate the PLC users to quickly communicate with the Zero One pneumatic board through the PLC, this description is hereby written. The board will operate as an RTU (slave) side.

1. Setting

Modbus supports both network and serial ports.

1.1 Network

Please set the IP in "Setting-Network " ("Setting-Comm/Event-Network " for LYK8-080) (if using Ethernet, please make sure the machine is assigned an IP or set a static IP) or connect to the local area network. When the marking machine is connected to the network, open "Setting-modbus" (LYK8-080 is: "Setting-comm/events-Modbus").

Modbus setting

Enable Type: Network

Host: 192.168.8.100 NetPort (1050-50000): 1050

Server Addr: 1

Tip:
Network port can not be set to 502, it must be in 1050 to 50000.

Setting Close

Network mode: In network mode, the IP address obtained by the current board

will be automatically obtained as the current host address. The port number needs to be set to be different from the port number in "Network ". The service address must be the same as that of the master.

Parameter	Value
Enable	<input checked="" type="checkbox"/>
Type	SerialPort
Port	COM0
Baudrate	115200
Data bit	8
Parity bit	None
Stop bit	1
Server Addr	1

Serial port mode: Serial port mode needs to set the connection information of the serial port. The service address needs to be the same as that of the master.

After the setup is complete, click Setup. If the setting information is correct, Modbus communication is possible. Modbus will not be automatically closed when the setting is correct, and it will also be automatically started when the board is started next time, until it is manually closed or the setting is wrong (such as network interruption or port number occupation, etc.).

2 Protocol

Currently Modbus protocol uses Holding Registers.

2.1 Modify the Marking Content

At present, the Modbus protocol supports modifying the content of 10 marks. The

length of each markup should not exceed 100 words (2 Bytes, English and numbers are counted as one word).

During initialization, the master needs to send a 03 command to refresh the content message of the current board. After receiving the 03 command, the board will update the current tag content and document name to the holding register, and then it can be read by the PLC. Pick.

The register definitions are as follows:

Name	Register Address (Decimal)	Description
The first mark content of the Entity list	1000-1099	Support <i>Unicode</i> Chinese; Each number and English occupies an address.
The second mark content of the Entity list	1100-1199	
The third mark content of the Entity list	1200-1299	
The fourth mark content of the Entity list	1300-1399	
The fifth mark content of the Entity list	1400-1499	
The sixth mark content of the Entity list	1500-1599	
The seventh mark content of the Entity list	1600-1699	
The eighth mark content of the Entity list	1700-1799	
The ninth mark content of the Entity list	1800-1899	
The tenth mark content of the Entity list	1900-1999	

When modifying the mark content, you only need to modify the value of the register of the corresponding address, that is, write the pointer to the corresponding register.

When a combined text class tag is read, the complete content is read, but when a mark is modified, only the content of the first child tag can be modified.

If the content marked as serial number is automatically changed by rules, it cannot be modified through this agreement. It needs to be modified manually in the interface.

2.2 Open Document

Similar to the mark content, the master needs to first send a 03 command to refresh the register content to obtain the name of the document opened by the current board.

The register definitions are as follows:

Name	Register Address (Decimal)	Description
The name of the currently marked document	2000-2099	Only the document name is required, no suffix required

2.3 Marking Operation

Support for start / stop marking, and marking status output.

Register are defined in the following table:

Name	Register Address (Decimal)	Description
start marking	2100	Write 1 bit to start marking

stop marking	2102	Write 1 to stop marking
Marking status output	2103	Update after executing the 03 command, the marking is 0, Non-marking status bit 1.

Notice: Please do not operate the registers not described in this manual (that is, do not operate the registers other than 1000-2103), so as not to cause PLC or other modbus tools to report errors!