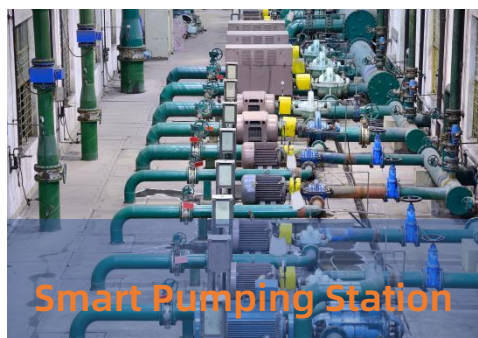# USR-M050

52-Way Network IO Controller

Rich links   Dual-Band WiFi/Ethernet
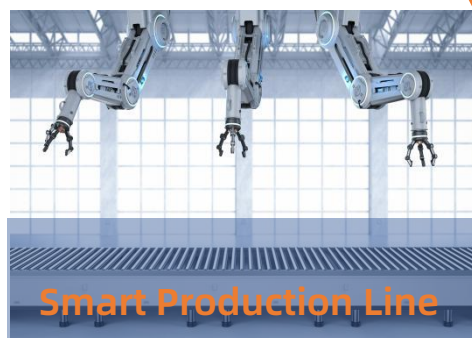
Expandable IO

Smart Pumping Station

Smart Healthcare

Smart Production Line

Product introduction

The USR-M050 is a new generation of intelligent network port IO controllers designed for industrial automation, equipment monitoring, energy management, and smart warehousing. This product features 2 digital input (DI) and 2 digital output (DO) channels, supporting the expansion of various IO acquisition and control functions. It offers flexible communication capabilities, including dual-band WiFiand Ethernet network connections. With its compact design and high performance, it can be easily deployed in various industrial settings, meeting the needs for efficient data collection and remote control. This helps enterprises achieve intelligent upgrades.

The product uses RISC-V processor, supports multiple network combinations, and more reliable upstream transmission; the hardware integrates 2 DI, 2 DO, can achieve industrial field control requirements, and supports Modbus protocol control. It can be widely used in smart breeding, smart factory and other industrial intelligent solutions.

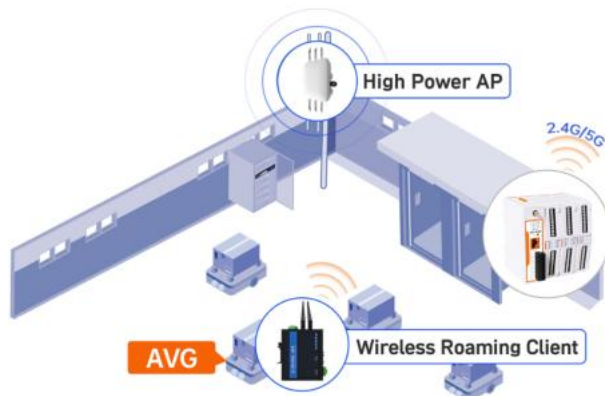**Smart factory**   **Smart power**   **Smart livestock**

Product features

- Multiple networks, Ethernet and WiFi, network is faster and more convenient;
- Support Modbus, Json acquisition and control, flexible protocol selection
- Supports MQTT, TCP Server, and TCP Client links
- Expand the IO function, the host has 2DI, 2DO, supports up to 6 IO expansion modules;
- Support access to the cloud to realize remote management and upgrade
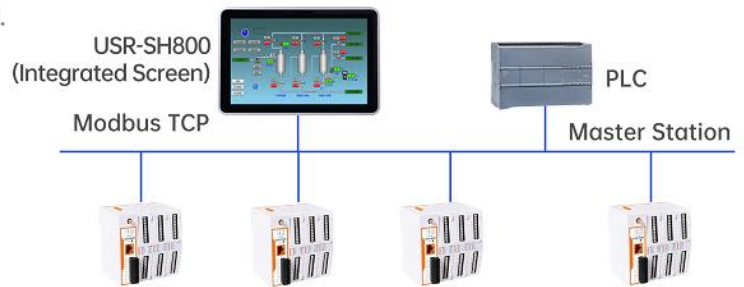- Small size, support rail installation, hanging ear installation

Product application

Intelligent Warehousing / AGV

The M050 connects to the control network via Dual-Band WiFi/Ethernet and controls IO to open doors upon AGV arrival.

High Power AP

2.4G/5G

AVG Wireless Roaming Client

PLC Remote IO Stations, Distributed IO

USR-SH800
(Integrated Screen)

Modbus TCP

PLC

Master Station

Product Parameter

USR-M050 Specifications		
Power	voltage	DC:9~36V
Io	DI	The second channel supports the acquisition of switch quantity, with 9-36V as high and 0-2V as low. The filtering time can be adjusted
	DO	2*DO, load 3A-250VAC/28VDC
Physical Specifications	Size	80 x 30 x 110 (mm)
	Weight	<200g
	interface	Terminal, hole diameter 1.5mm (diameter)
	way to install	Rings or rails
	Expand the way	Slide rail, built-in connector
Hardware Protection	static electricity	IEC61000-4-2, Level 2, class B
	surge	IEC61000-4-5, Level 2, class B
	pulse group	IEC61000-4-4, Level 2, class B
Indicator Light	Supply	POW, it lights up when powered on and turns off when powered off
	Work	WORK, the equipment works normally, 1s flash once
	Network	NET, No network shutdown; WiFi: 2.4G Flash twice, and then flash again after 2S; WiFi: 5G flashes twice, then flashes again after a 2S interval;
	DO	2*DO
	DI	2*DI
Ethernet	Standard	1* WAN , 10M/100M, RJ45, MDI/MDIX
	Default	Static IP: 192.168.0.7
	DNS server	The default primary server is 223.5.5.5, and the default standby DNS server is 8.8.8.8
Operational	Working	-25°C ~ 70°C

Environment	temperature	
	Storage temperature	-40°C ~ 85°C
	Working humidity	5% ~ 95%，No condensation
Other Features	Antenna	SMA-F external screw inner hole
	Networking protocol	ICMP,IPv4,IP,ARP,TCP,UDP,DHCP,DNS,HTTP,MQTT,
	Parameter configuration	Built-in Web
	Communication link	3 routes, 1*TCP +1*MQTT +1*PUSR Cloud, SSL encryption supported
	Protocol conversion	Modbus RTU/TCP，Json
	Time calibration	Supports NTP, browser time synchronization and manual setting, and supports time zone setting

Product Size

Product Selection

Product model	Ethernet	Network	Area	Band
USR-M050-C1	√	LTE Cat1	China	LTE TDD: Band 34/38/39/40/41 LTE FDD: Band 1/3/5/8 GSM: 900/1800MHZ
USR-M050-ETH	√	-	Global	/
USR-M050-EW	√	WiFi 2.4G/5.8G	Global	IEEE 802.11a/b/g/n/ac

Your Trustworthy Smart IOT Partner