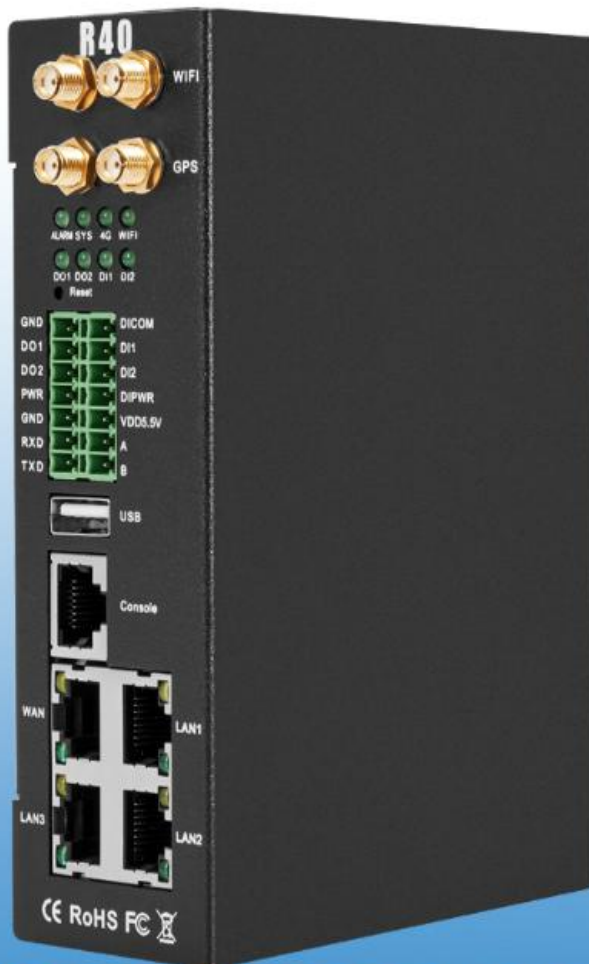




4G Industrial Router R40

4G Cellular Industrial Router



4G Cellular Router Data Sheet

Ver 1.0

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Provide data wireless access internet acquisition control
With AI/DI/DO, supports Modbus to TCP/MQTT/PLC protocol

4G Industrial VPN Router R40



4G Wireless Industrial Router

Wireless Data Connectivity

Model Selection List

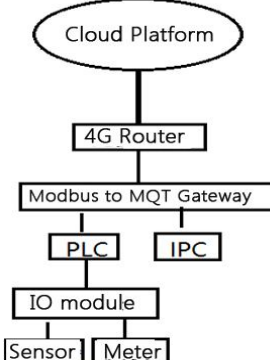
Model	Serial Port	WAN	LAN	WIFI	Digital input	Digital output	Analog input	Extend function
R40	1RS485,1RS232	1	3	√	2	2	x	Modbus slave/MQTT
R40A	1RS485,1RS232	1	3	√	2	2	x	Modbus master/slave/MQTT
R40B	1RS485,1RS232	1	3	√	2	2	4	Modbus master/slave/MQTT

Brief Introduction

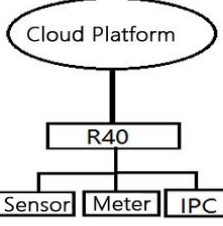
R40 industrial router is an industrial IoT high-speed router, compatible with 4G/3.5G/3G/2.5G network, flagship configuration, VPN link, industrial protection, wide temperature, wide voltage design, easy to set up high speed, stable The wireless transmission network uses the public LTE network to provide users with wireless long-distance data transmission, It is with 4 AI+2DI+2DO for options,can be used in multiple industrial applications.

High-performance industrial-grade cellular router adopts 32-bit processor, developed based on Linux system, supports GSM/2G/3G/4G/GPRS/EDGE/WCDMA/HSPA+/LTE network, provides high-speed wireless network bandwidth for the device through wireless connection, and has automatic detection of network disconnection, automatic restart of dial-up failure, and scheduled restart to ensure network Stable connection.

Traditional model




R40 solution



Advantage:

1. Low hardware cost
2. Less hardware connection, low error probability
3. Small installation space and easy construction
4. Simplified architecture and low maintenance cost
5. Humanized design, no PLC programming required

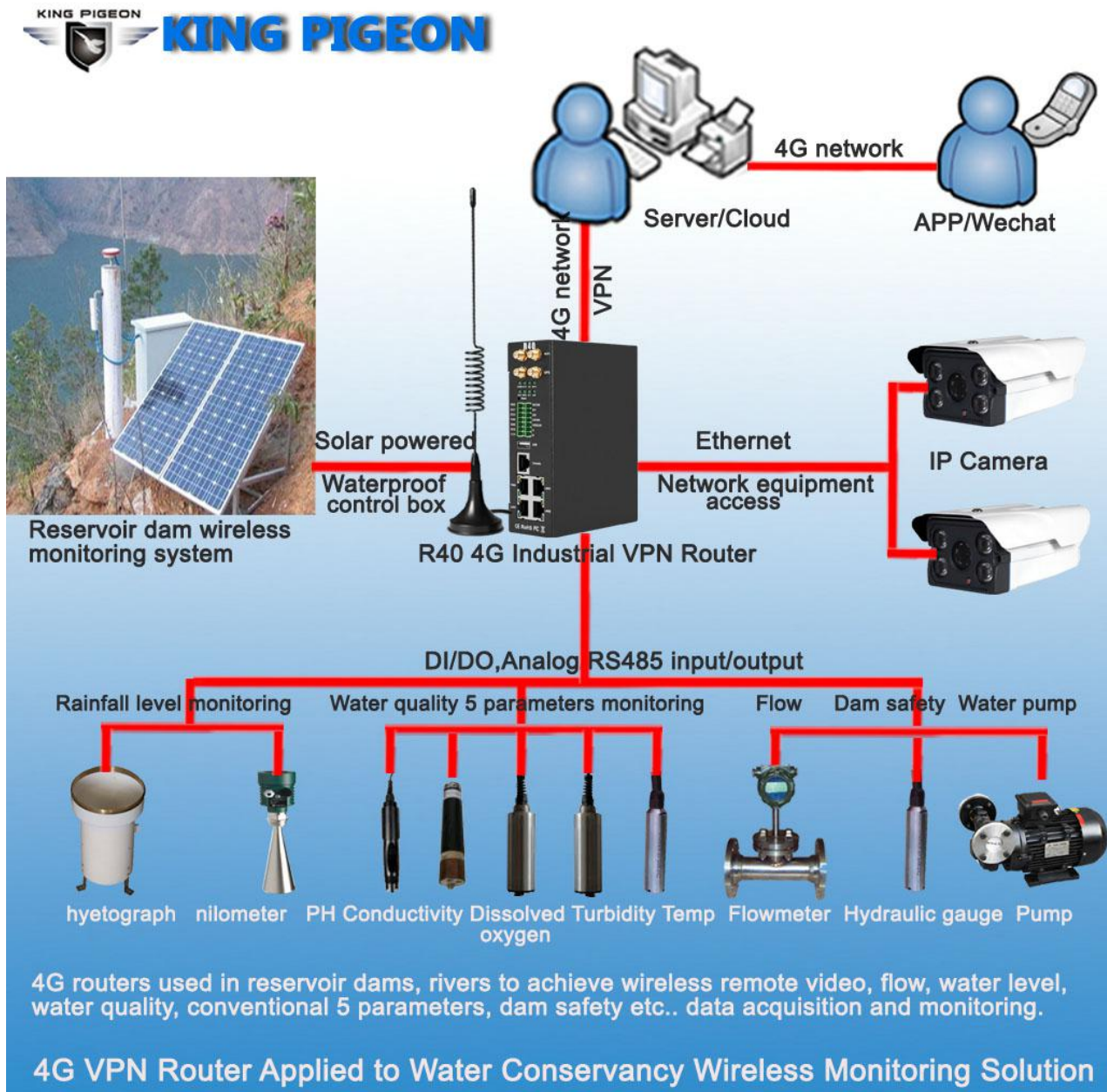


Provide data wireless access internet acquisition control
 With AI/DI/DO,supports Modbus to TCP/MQTT/PLC protocol
4G Industrial VPN Router R40

Typically Applications

BTS Monitoring, Security Alarm System applications, Supervision and monitoring alarm systems, Automatic monitoring system, Vending Machines security protection, Pumping Stations, Tanks, Oil or Water levels, Buildings and Real Estate, Weather Stations, River Monitoring and Flood Control, Oil and gas pipelines, Corrosion protection, Temperatures, water leakage applications, Wellheads, boat, vehicle, Energy saving, street lights control system, Valve controls, Transformer stations, Unmanned machine rooms, Control room application, Automation System, M2M, etc.

Application Diagram Example



Standard Packing List

Router R40 X1, Power adaptor*1, GSM/3G/4G Antenna X1, 2.4G WIFI Antenna X3, User Manual X1, Wall-mounted snap kit x 2, 35mm Standard DIN rail fixed Bracket*1.



Note: The package does not include any SIM card.

Selling Points:

- 4G industrial Router with 2DI+2DO+4AI/ GPS /POE optional,AI value can set multiple threshold and alarm value;
- Dual sim ,support hundreds of 3G/4G wireless modules, plug and play;
- If network disconnect ,can send data of offline time to cloud when network recovery(only MQTT)
- Can monitor the online status of network devices connected to the LAN port, and send alarm via SMS/Email/Cloud;
- Can integrate customer's SDK;
- Communication protocol:Modbus slave/master/MQTT/MQTT SSL;
- Remote upgrade and web configuration;
- Support serial port TCP/UDP transparent data transmission or AT command transmission;
- SMS control route online and offline, short-term notification of routing status;
- Support VPN security tunneling IPsec, Open VPN PPTP, L2TP;
- Various network protocols:PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, NTP, SMTP, Telnet, VLAN,SSH2, DDNS,SNMP
- Support WIFI AP and client mode,max speed 300Mbps;
- Support TCP client/ server
- Support for dynamic DDNS: support for peanut shell, 88IP and dyn dns domain name service providers.

Item	Parameter	Description
Power Supply	Voltage	9~57V DC
	Power Consumption	Normal: 100mA@12V,Max: 800mA@12V



4G Wireless Industrial Router

Wireless Data Connectivity

	Power Protection	Anti-reverse connection Protection,ESD Air: 15KV,Surge: 4KV
Ethernet	Interface Qty	WAN: 1 LAN: 3
	Interface Spec	RJ45,10/100Mbps,Automatically adapted to MDI/MDIX
	POE (Optional)	Support 3 POE power output Compatible with IEEE802.3at / af standards Single POE maximum output power 30W
	Interface Protection	ESD contact : 8KV ,Surge: 4KV (10/1000us)
Analog input	QTY	4
	Type	4-20mA,0-5V
	ADC Resolution	16 bit
	Port Type	3.5mm
	Port Protection	EFT: 40A (5/50ns)
Digital input	QTY	2
	Type	dry or wet contact
	Port Type	3.5mm
	Range	High level (1) 3-30V, low level (0) 0-1V
	Pulse counter frequency	<100Hz
	Port Protection	Isolation voltage 3750Vrms
Digital output	QTY	2
	Type	Sink output,can control relay ≤ DC 24V,for other range,can connect external relay to control
	Port Type	3.5mm
	Load voltage	Max 50V
	Load current	500mA(single),625mW
	Port Protection	EFT: 40A (5/50ns)
Serial Port	Serial Port Qty	2
	Type	RS485,RS232
	Baudrate	110bps-128000bps
	Data Bit	7,8
	Parity	None, Even, Odd
	Stop Bit	1,2
	Working mode	AT command ,Data transparent transmit mode
	Serial Port Protection	ESD Contact: 8KV Surge: 4KV (8/20us)
WIFI	Antenna Port	2
	Antenna Port Type	SMA
	Protocol	802.11a/b/g/n (mixed)
	Mode	AP/Client Mode
	Frequency	2.4G
	Channel	Channel 1 - 13
	Security	Open /WPA/WPA2
	Encryption	AES/TKIP/WEP64
	Number of connections	32 (Max)
	Speed	300Mbps (Max)



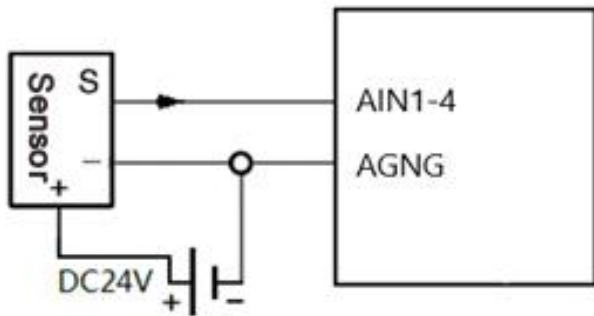
4G Wireless Industrial Router

Wireless Data Connectivity

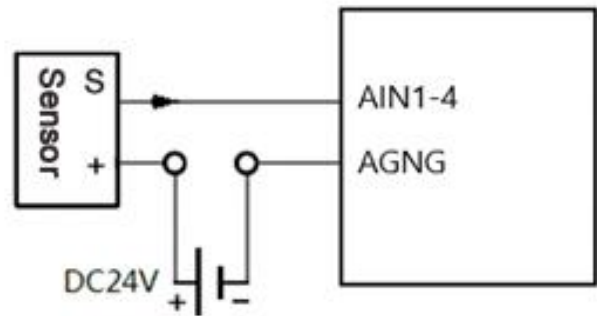
	Transmit Distance	Outdoor non-blocking/opening, covering up to 100 meters
	SSID Broadcast Switch	Support
Cellular Network	Antenna Port Qty	1
	Antenna Port Type	SMA
	2G	GSM/EDGE: 850,900,1800,1900MHz
	3G	GSM/EDGE: 850,900,1800,1900MHz/UMTS: 850,900,2100MHz
	4G (E)	GSM/EDGE: 900,1800MHz
		WCDMA: B1,B5,B8
		FDD: B1,B3,B5,B7,B8,B20 TDD: B38,B40,B41
	4G (AU)	GSM/EDGE: 850,900,1800MHz
		WCDMA: B1,B2,B5,B8
		FDD: B1,B2,B3,B4,B5,B7,B8,B28 TDD: B40
	4G (A)	WCDMA: B2,B4,B5
		FDD: B2,B4,B12
	4G (V)	FDD: B4,B13
	4G (J)	WCDMA: B1,B3,B8,B18,B19, B26
		FDD: B2,B4,B12
TDD: B41		
4G (CE)	GSM/EDGE:900,1800MHz	
	WCDMA: B1,B8	
	TD-SCDMA: B34,B39	
	FDD: B1,B3,B8 TDD: B38,B39,B40,B41	
SIM/UIM	Drawer type / Pop-up type	
	Support 1.8V/3V SIM/UIM card,inbuilt 15KV ESD protection	
GPS (Optional)	Antenna Port Qty	1
	Antenna Port Type	SMA
	Tracking Sensitivity	> -148 dBm
	Horizontal Accuracy	2.5m
	Protocol	NMEA-0183 V2.3
System	CPU	MIPS CPU,Clock Speed 580Mhz
	storage	16MB(Scalable to 32MB)
	RAM	128MB(Scalable to 256MB)
Software	Network Portocol	PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPs, DNS, ARP, NTP, SMTP, Telnet, VLAN,SSH2, DDNS,SNMP etc.
	Firewall	Filtering (IP/MAC address), Port Mapping
	VPN	VPN tunnel IPsec, OpenVPN,L2TP
	Remote Management	Support web remote configuration
	Port Mapping	Support
	SMS Command	Support
	System Log	Support

	Firmware Upgrade	Support serial port local TFTP/web firmware upgrade
Certificate	EMS	EN 55022: 2006/A1: 2007 (CE &RE) Class B
		IEC 61000-4-2 (ESD) Level 4
		IEC 61000-4-3 (RS) Level 4
		IEC 61000-4-4 (EFT) Level 4
		IEC 61000-4-5 (Surge)Level 3
		IEC 61000-4-6 (CS)Level 4
	IEC 61000-4-8 (M/S) Level 4	
Others	CE/FCC/ROHS/3C	
Enviorment	Working Temperature&Humidity	-40~85°C,5~95%RH
	Storage Temperature&Humidity	-40~105°C,5~95%RH
Others	Enclosure	Metal
	Size	145*114*45mm
	IP level	IP30
	NW	790g
	Installation way	Wall-amount/ rail-amount

Analog input Wiring diagram

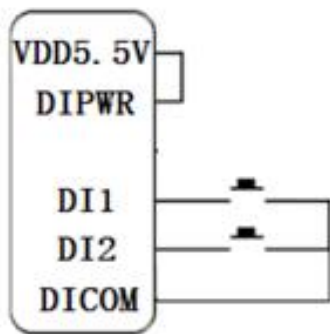


3-Wire Current/Voltage Sensor

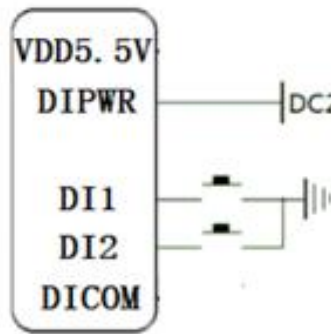


2-Wire Current Sensor

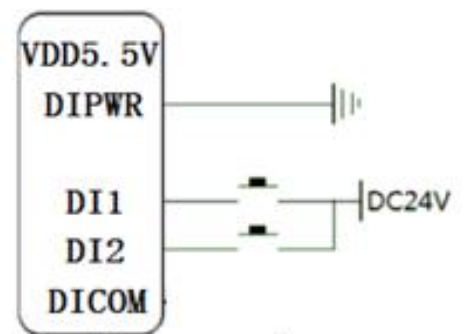
Digital input Wiring diagram



Dry contact input

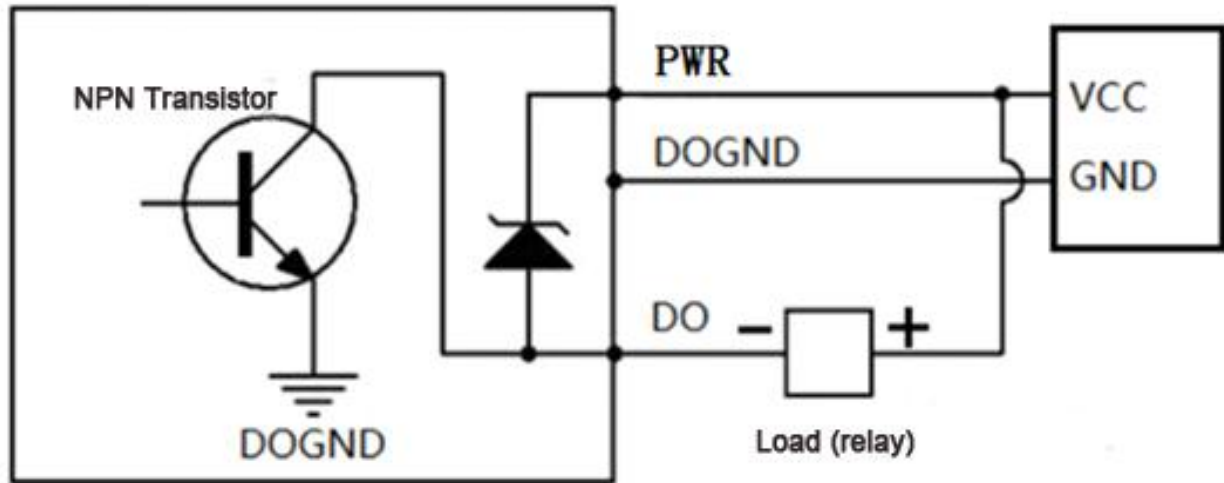


Common anode wet contact input



Common anode wet contact input

Digital output Wiring diagram



The End!

Any questions please help to contact us feel free.

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