

S6302U

Ethernet 16 digital input Module

User's Manual



SHJ

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S6302U Ethernet digital input module has total 16 channels isolated wet contact or dry contact or open-collector input, Each input channel also can work as 32-bit counter input, the maximum frequency is 1000Hz for total 16 channels and 5000Hz for only one channel. S6302 can connect to PC through USB port, USB port support modbus protocol, and connect to local Ethernet with modbus/tcpip protocol. All these communication port has static, over current, over voltage protect.

Highlights:

- Industry Ethernet with MODBUS/TCPIP
- RS232 / RS485 with MODBUS protocol to configure the module
- Isolated digital inputs can be configured as counter input, total 32 bits, 5000Hz
- Can measure frequency from 0 to 1000Hz, the resolution is 0.1Hz
- Accept reed and hall sensor output from water meter or other meters
- Static and lightning protection for each input
- The input channel number is configurable, can be set up from 1 channel through 16 channels, improve frequency for small count input
- Full speed USB, compatible USB2.0
- A lot of spare FLASH can be used to store user's parameters
- DIN support available

Application:

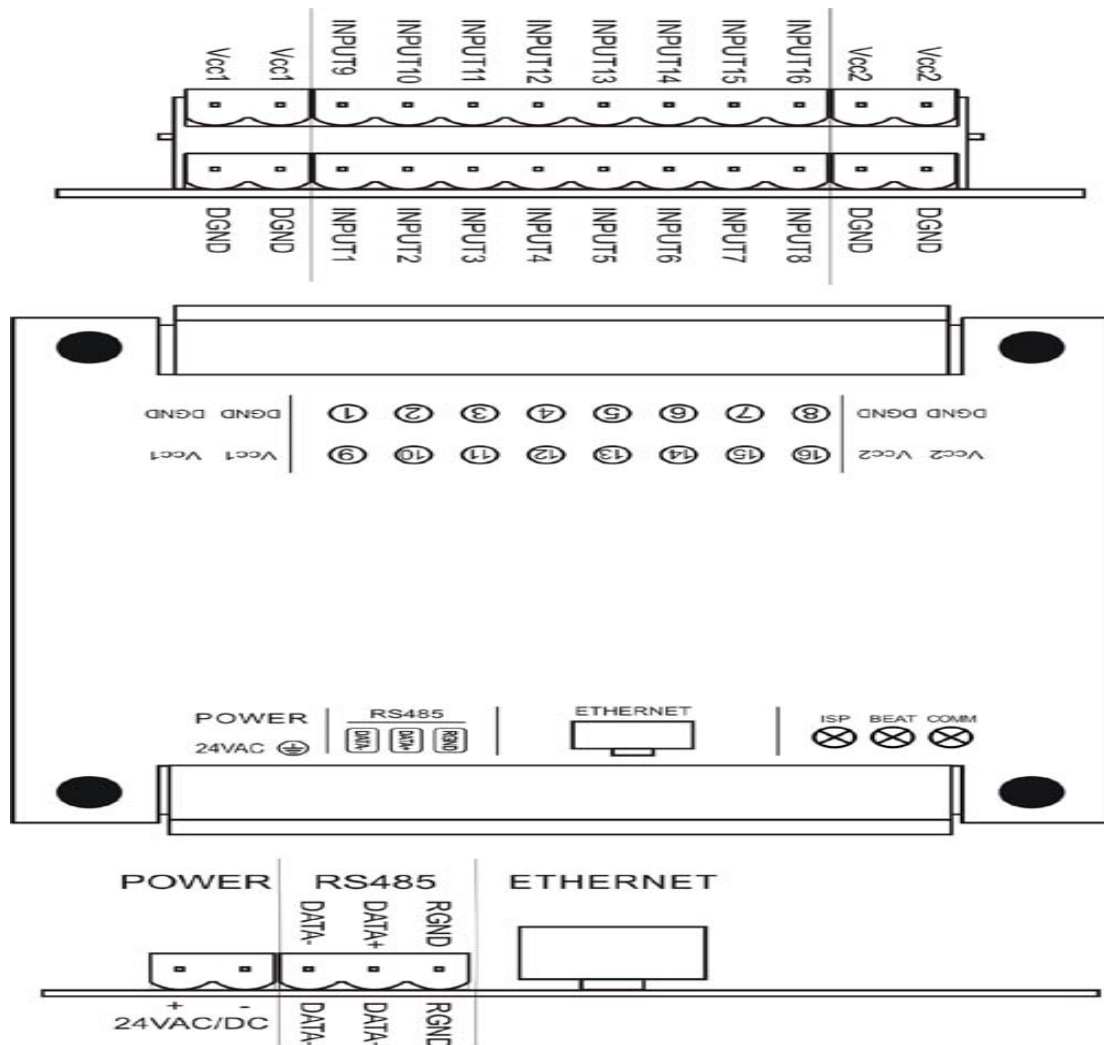
- ✓ Remote data acquisition
- ✓ Process monitoring
- ✓ Industrial process control
- ✓ Energy management
- ✓ Supervisory control
- ✓ Security systems
- ✓ Laboratory automation
- ✓ Building automation
- ✓ Product testing
- ✓ Direct digital control

Technical data:

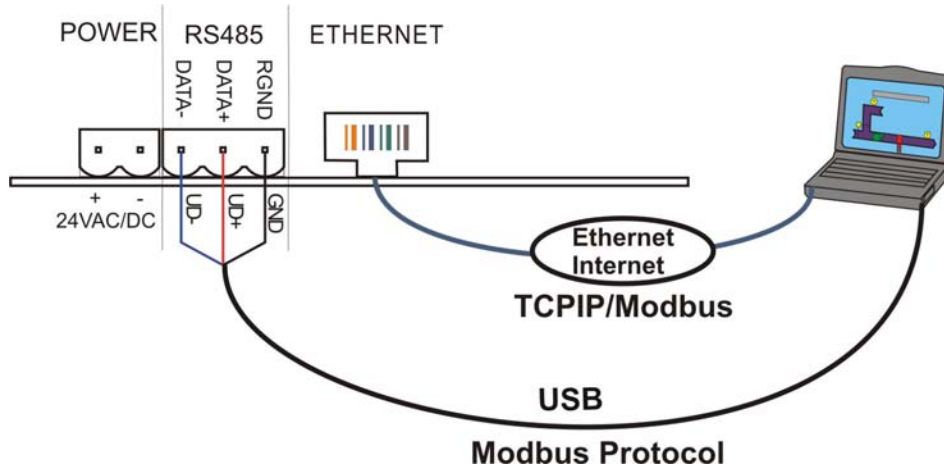
Input channel number----- 16
 Input range-----0V~+36V
 Input signal-----wet contact, dry contact, open-collector
 Counter frequency-----1000Hz@ 16channels;5000Hz@ 1channel
 Counter length-----32-bit
 Output BUS-----Ethernet/USB
 USB protocol-----MODBUS/RTU
 Ethernet protocol-----MODBUS/TCPIP
 Output Protection-----Lightning, static

Power input-----	12~24V(AC/DC)
Power consumption-----	70mA@24VDC
Ambient temperature:	
Operation-----	-20~85℃(-13~185°F)
Storage-----	-40~100℃(-40~212°F)
Ambient humidity-----	10%~90%RH
Material,enclosure-----	Flame proof plastic
Enclosure rating-----	IP31
Colour-----	White/Black
Size-----	115*90*43 mm

Wiring Diagram and Description:

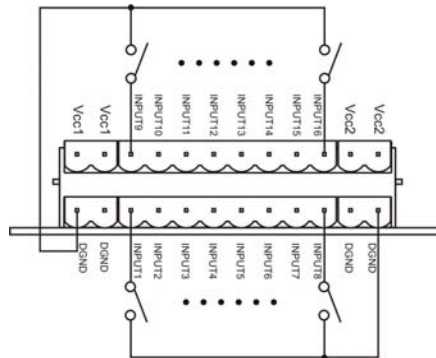


Top View Figure

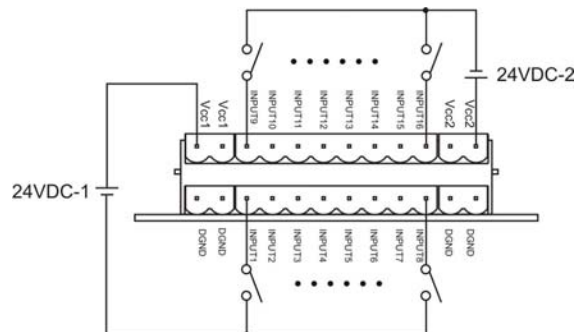


Wiring Diagram _ USB

The serial port can use RS232 or RS485, we will provide different module to replace each other, the default is RS485 output.



Dry contact input, relay contact



Wet contact input, 0-36VDC

For wet contact input, low level input is 0-1V and high input can be 3-36VDC, there are two group common source and each group has 8 inputs.

PINs and LEDs**Power supply**

24VAC: power supply positive input, has reverse protection, accept AC and DC input

- : Power supply negative input

USBPort

DATA+: connect to UD+ end of USB

DATA-: connect to UD- end of USB

RGND: GND of USB

We will provide a cable to connect to RS232 port. RS232 and RS485 use the same terminal, user can get RS232 or RS485 by changing a serial communication module.

Ethernet port

Connect to local Ethernet network through RJ45 cable

Inputs

Vcc1: Power source input for digital input 1 through 8

DI1 ~ DI8: Digital input channel 1 through 8

Vcc2: Power source input for digital input 9 through 16

DI9~DI16: Digital input channel 9 through 16

DGND: common for digital input 1 through 16, available in dry input mode

LEDs

Heart: Will flash when system is working

Comm: Will flash when RS232 serial port communication

Jumpers

ISP: keep ON in program mode

Modbus Register List:

Note: * means default value

Address	Bytes	Value range		Description	Property
		Min	Max		
0-3	4	1	4294967295	Serial number, unique for each product	R
4-5	2	100	65535	Firmware version number	R
6	1	1	254	Device address	R/W
7	2	6302	6302	Product model	R
8	1	1	255	Hardware version	R

9	2	12	1152	Baudrate setting		R/W
				Value	Buadrate	
				12	1200	
				24	2400	
				48	4800	
				96	9600	
				192	19200	
				384	38400	
				576	57600	
				1152	115200	
For example: write 96 to register 9 to set the baudrate 9600.						
10-99	-	-	-	Reserved		-
100	2	0	65535	Status for digital input channel 1 through 16, 0 = contact active,1 = contact inactive.Bit0 correspond to channel 1,bit1 correspond to channel 2 etc.		R
101	2	0	65535	High word for counter input 1		R/W
102	2	0	65535	Low word for counter input 1,value of counter = (101) *65536 + (102)		R/W
103	2	0	65535	High word for counter input 2		R/W
104	2	0	65535	Low word for counter input 2,value of counter = (103) *65536 + (104)		R/W
105	2	0	65535	High word for counter input 3		R/W
106	2	0	65535	Low word for counter input 3,value of counter = (105) *65536 + (106)		R/W
107	2	0	65535	High word for counter input 4		R/W
108	2	0	65535	Low word for counter input 4,value of counter = (107) *65536 + (108)		R/W
109	2	0	65535	High word for counter input 5		R/W
110	2	0	65535	Low word for counter input 5,value of counter = (109) *65536 + (110)		R/W
111	2	0	65535	High word for counter input 6		R/W
112	2	0	65535	Low word for counter input 6,value of counter = (111) *65536 + (112)		R/W
113	2	0	65535	High word for counter input 7		R/W

114	2	0	65535	Low word for counter input 7,value of counter = (113) *65536 + (114)	R/W
115	2	0	65535	High word for counter input 8	R/W
116	2	0	65535	Low word for counter input 8,value of counter = (115) *65536 + (116)	R/W
117	2	0	65535	High word for counter input 9	R/W
118	2	0	65535	Low word for counter input 9,value of counter = (117) *65536 + (118)	R/W
119	2	0	65535	High word for counter input10	R/W
120	2	0	65535	Low word for counter input 10,value of counter = (119) *65536 + (120)	R/W
121	2	0	65535	High word for counter input 11	R/W
122	2	0	65535	Low word for counter input 11,value of counter = (121) *65536 + (122)	R/W
123	2	0	65535	High word for counter input 12	R/W
124	2	0	65535	Low word for counter input 12,value of counter = (123) *65536 + (124)	R/W
125	2	0	65535	High word for counter input 13	R/W
126	2	0	65535	Low word for counter input 13,value of counter = (125) *65536 + (126)	R/W
127	2	0	65535	High word for counter input 14	R/W
128	2	0	65535	Low word for counter input 14,value of counter = (127) *65536 + (128)	R/W
129	2	0	65535	High word for counter input 15	R/W
130	2	0	65535	Low word for counter input 15,value of counter = (129) *65536 + (130)	R/W
131	2	0	65535	High word for counter input 16	R/W
132	2	0	65535	Low word for counter input 16,value of counter = (131) *65536 + (132)	R/W
133	1	1	100	Respond delay for serial communication, the units is ms and default is 10ms	R/W
134	2	1	30000	Filter time for counter input, the units is 10us and the default is 200us	R/W
135	1	0	255	Disable/enable input,0 = disable and 1 = enable.Bit0 correspond to input1, Bit1 correspond to input 2 and so on.	R/W

136	1	0	255	Disable/enable input,0 = disable and 1 = enable.Bit0 correspond to input9, Bit1 correspond to input 10 and so on.	R/W
137	1	0	1	Input status selection.0 = ON/OFF,1 = OFF/ON, default is ON/OFF	R/W
138-199	-	-	-	reserved	-
200-203	1	0	255	Device local IP address, default is 192.168.0.18	R/W
204-207	1	0	255	Gate way address, default I is 192.168.0.1	R/W
208-211	1	0	255	Subnet address, default is 255.25.255.0	R/W
212-217	1	0	255	MAC address	R/W
218	2	0	65535	Port number, default is 6001	R/W