SENS' IOs 16

16 Digital inputs Modbus Slave

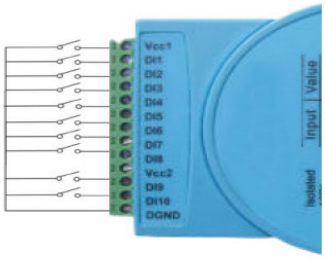
REFERENCE AC1201-02

Application

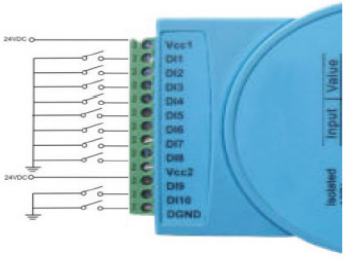
It has a total of 16 isolated channels for wet or dry contact or open-collector input. Each input channel can also work as 32-bit counter input. The maximum frequency is 200Hz for a total of 16 channels and 1000Hz for only one channel. Output BUS is RS485 which has surge protection to reduce interference by serial port communication. The output is isolated by high speed opto-couplers. The modules can easily be controlled by Webdyn gateways.

Wiring diagram and description

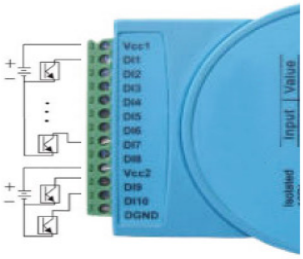
Dry contact input



Wet contact input



Open collector input



Terminal definition

Input Wiring

- 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

Power Wiring

- DC: 24V, positive end

GND, negative end

- AC: 24V, hot line

GND, neutral line

Reset Parameter to default

Put the jumper between GND and INIT, the following parameters back to default.

- Address of devices: 254
- Baudrate: 19 200
- Channel: enable all channels
- Filtering: 200us for frequency input

Specifications

Description	INPUT SLAVE
Input channels	16
Input range	+4V ~ +36V
Input signal	wet & dry contact, open-collector
Counter frequency	100Hz for 16 channels; 1000Hz for 1 channel
Counter length	32 bit
Output BUS	RS485 (standard Modbus protocol)
Power input	9 ~ 24V (AC/DC)
Power consumption	<0.6W
Ambient temperature	Operation: -20 to +85°C Storage: -40 to 100°C

Description	INPUT SLAVE
Ambient humidity	10% to 90%
Enclosure rating	IP31

RS485 Wiring

- DATA+: connect to A end of RS485
- DATA -: connect to B end of RS485
- RGND: connect to earth if necessary

LEDs Indication

- Heart: Flashing when the system is working
- Comm: Flashing when serial port communication is working
- 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	3302	3302	Product model	R
8	1	1	255	Hardware version	R
9	2	12	1152	Baudrate setting 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.	R
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

Address	Bytes	Value range		Description	Property
		Min	Max		
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