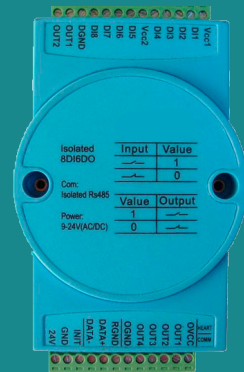


SENS' IOs 8/6

8 Digital Inputs/6 Outputs Modbus Slave

REFERENCE AC1201-01

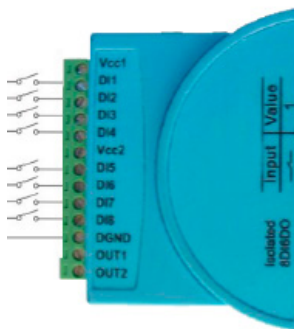


Application

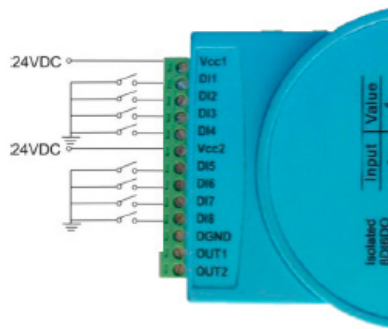
It has in total 8 channels isolated wet contact, dry contact or open-collector inputs and a total of 6 channels for isolated open-collector outputs. The output BUS is RS485 which has surge protection to reduce interference by serial port communication. The output is isolated by high speed opto-couplers. The modules are slave devices that can be easily controlled by Webdyn gateways.

Wiring diagram and description

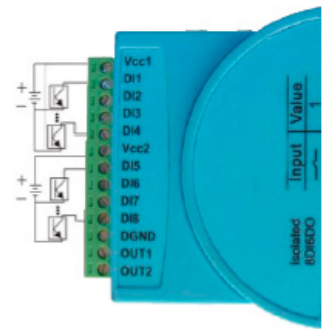
Dry contact input



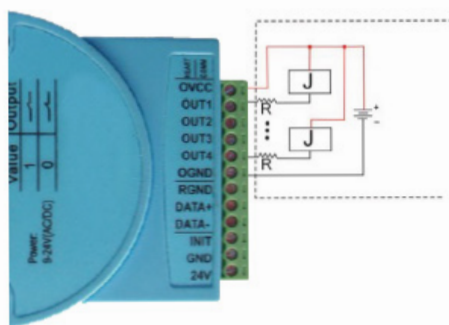
Wet contact input



Open collector input



Open collector output



Terminal definition



Input Wiring

- Vcc1: Power source input for digital input 1 through 4
- DI1: Digital input channel 1
- DI2: Digital input channel 2
- DI3: Digital input channel 3
- DI4: Digital input channel 4
- Vcc2: Power source input for digital input 5 through 8
- DI5: Digital input channel 5
- DI6: Digital input channel 6
- DI7: Digital input channel 7
- DI8: Digital input channel 8
- DGND: common for digital input 1 through 8, available in dry input mode

Output Wiring

- OUT1: Open-collector output channel 1
- OUT2: Open-collector output channel 2
- OUT3: Open-collector output channel 3
- OUT4: Open-collector output channel 4
- OUT5: Open-collector output channel 5
- OUT6: Open-collector output channel 6
- OVCC: Power source for output
- OGND: Ground for output

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
- Filter 200us for frequency input

LEDs Indication

Description	INPUT/OUTPUT SLAVE
Input channels	8
Input range	+4V ~ +36V
Input signal	wet & dry contact, open-collector
Counter frequency	100Hz for 8 channels 1000Hz for 1 channel
Counter length	32 bit
Output channel number	6
Output signal	open-collector
Output current	maximum 40mA
Output BUS	RS485 (standard Modbus protocol)

Description	INPUT/OUTPUT SLAVE
Power input	9 ~ 24V (AC/DC)
Power consumption	<0.6W
Ambient temperature	Operation: -20 to +85°C Storage: -40 to 100°C
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	3301	3301	Product model	R	
8	1	1	255	Hardware version	R	
9	2	12	1152	Baudrate setting	R	
				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	1	0	255	Status for digital input channel 1 through 8, 0 = contact active,1 = contact inactive.Bit0 correspond to channel1,bit1 correspond to channel 2 and so on.	R	
101	1	0	255	Open-collector output,0 = active,1 = inactive.Bit0 correspond to output 1,bit1 correspond to channel 2 etc.	R/W	
102	2	0	65535	High word for counter input 1	R/W	
103	2	0	65535	Low word for counter input 1,value of counter = (102) *65536 + (103)	R/W	
104	2	0	65535	High word for counter input 2	R/W	
105	2	0	65535	Low word for counter input 2,value of counter = (104) *65536 + (105)	R/W	

Address	Bytes	Value range		Description	Property
		Min	Max		
106	2	0	65535	High word for counter input 3	R/W
107	2	0	65535	Low word for counter input 3,value of counter = (106) *65536 + (107)	R/W
108	2	0	65535	High word for counter input 4	R/W
109	2	0	65535	Low word for counter input 4,value of counter = (108) *65536 + (109)	R/W
110	2	0	65535	High word for counter input 5	R/W
111	2	0	65535	Low word for counter input 5,value of counter = (110) *65536 + (111)	R/W
112	2	0	65535	High word for counter input 6	R/W
113	2	0	65535	Low word for counter input 6,value of counter = (112) *65536 + (113)	R/W
114	2	0	65535	High word for counter input 7	R/W
115	2	0	65535	Low word for counter input 7,value of counter = (114) *65536 + (115)	R/W
116	2	0	65535	High word for counter input 8	R/W
117	2	0	65535	Low word for counter input 8,value of counter = (116) *65536 + (117)	R/W
118	1	1	100	Respond delay for serial communication, the units is ms and default is 10ms	R/W
119	1	1	255	Filter time for counter input, the units is 10us and the default is 200us	R/W
120	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
121	1	0	1	Input status selection.0 = ON/OFF,1 = OFF/ON,default is ON/OFF	R/W