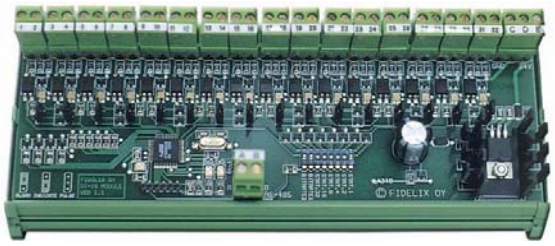
MODBUS-DI-16 Digital Input Modules

16-Channel Digital Input Module is used to interface potential free contacts. Normally closed and normally open contacts can be used. Each channel can be independently configured as alarm point, indication point or pulse counter.

Acceptable pulse width can be independently set for each channel. All important values are saved to eeprom during power off.

Module address and communication speed is selected using onboard dip-switch.



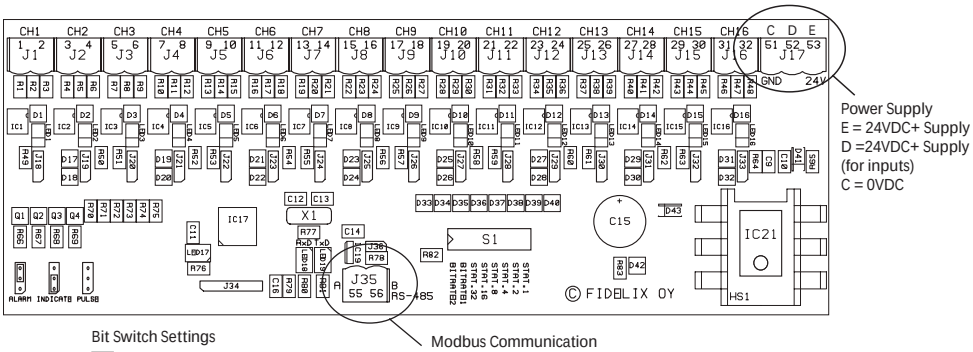
Features

- 16 digital inputs
- Indication, alarm and pulse
- Opto-coupled inputs
- Bi-color signal leds
- Plug-in Terminals
- RS-485 Communication using Modbus
- DIN-rail Mounting

	Model	Description
Model Type	**MODBUS-DI-16**	16 Digital Input Module, Modbus Communications.

Technical Data	Operating Voltage	20..26Vdc
	Power Consumption	15mA .. 30mA
	Communication	Modbus RTU
	Communication Speed	9600 bps, 19200 bps, 38400 bps or 57600 bps
	Address Range	1..63 via bit switch
	Input Loop Supply Voltage	20..48Vdc
	Input Loop Current	2.5 mA @ 24Vdc / active loop
	Operating Temperature	0..50°C
	Dimensions	W205 x H95 x D50 mm

Wiring Details



Bit Switch Settings

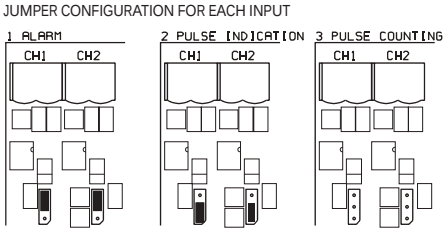
Communication Speed

Speed	Bitrate 1	Bitrate 2
9600bps	Off	Off
19200bps	On	Off
38400bps	Off	On
57600bps	On	On

Modbus Address

Use Stat 1 + ... + Stat 32 to set the modbus address.
e.g.
Stat 1 only ON = Modbus Slave Address 1
Stat 4 only ON = Modbus Slave Address 4
Stat 4 and Stat 1 ON = Address 5 (1+4) etc..

Jumper Configuration



The inputs have three different operating modes, which can be selected using jumpers J18 - J33. For normal usage set each of the input configuration jumpers to "Pulse Indication" position.

Only potential free contacts should be connected to the inputs.

Modbus Registers and Operation

The MOD-DI16 is a Modbus slave. Via the Modbus communication channel the status of its inputs can be read for alarming and plant status indication purposes.

Modicon Modbus Register	Description	Netbiter Data Register	Netbiter Data Type
Reg 0	16-Bit Status of each input (channel)	1	Unsigned 16

Register 0 shows the status of inputs. Bit 0 means status of input channle 1 and bit 15 channel 16. The bit stays set when the contacts are open and the bit clears when the contact closes (normally closed logical operation). Use the configuration settings of the Modbus master to reverse the input logic, if required.