

FIOD 1600 Manual

The FIOD series products add digital capability to your PLC / SCADA.

FIOD 1600 model has 16 digital inputs. The digital inputs are isolated from the host device. It has one (2 Wire RS485) communication port. The COM port is used to connect any modbus master device (PLC / SCADA / Operator Interface device). This module supports Modbus RTU (Slave) protocol.



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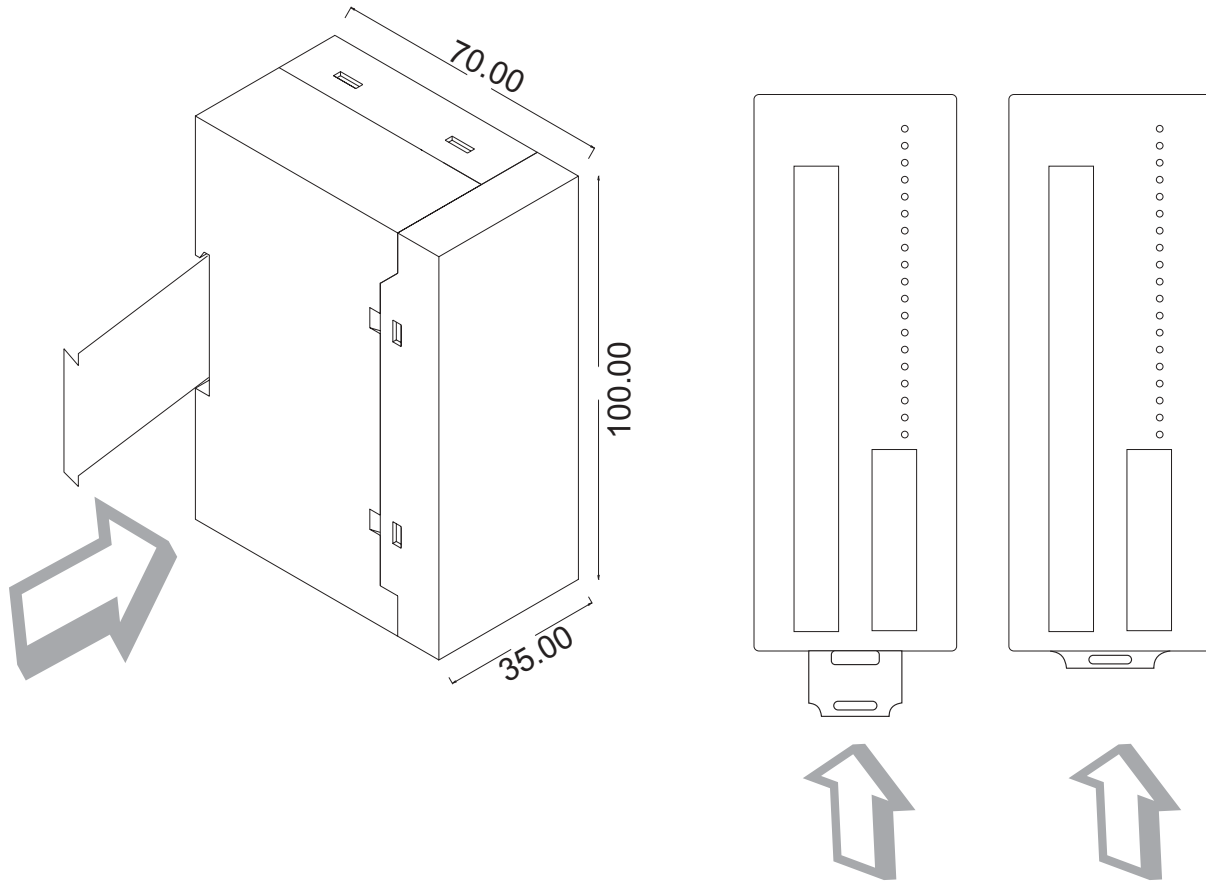
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Dimensional Details:

FIOD units are shipped with a separate DIN rail plate which can be attached to the unit, if desired. User can use the unit with or without the DIN rail plate. Following sketch shows dimensional details of FIOD with the DIN rail plate.



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PLC Communication

The unit supports Modbus RTU (Slave) protocol. Dedicated modbus registers are used for tracking inputs. Unit scans all the inputs continuously and stores this information into Input register. The communication parameters and unit address are set by DIP switch.

Specifications: -

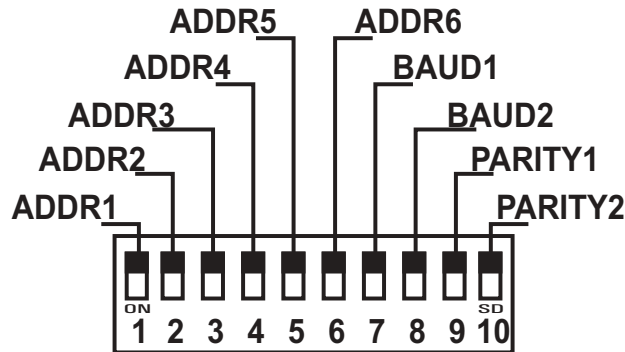
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|----|-----------------------|---|-------------------------------------|
| 1. | Power Supply | : | 24 VDC +/- 10% |
| 2. | Digital Inputs | : | 0 to 5 V DC Low; 12 to 28 V DC High |
| 3. | Communication Port | : | 2 Wire RS-485 |
| 4. | I/O Terminals | : | Pluggable terminals. |
| 5. | Operating Temperature | : | 0°C to 60°C |
| 6. | Storage Temperature | : | -20°C to 80°C |
| 7. | Humidity | : | 10% to 90% (Non condensing) |
| 8. | Mounting | : | DIN rail mounting |
| 9. | Dimensions (DIN rail) | : | 70 X 100 X 35 mm |

Communication Parameters And Modbus Tag Definition

Unit supports MODBUS driver for communication with Master device.

COM Port Setting:

COMM PORT SETTING



FIOD 1600 Manual

UNIT ID	ADDR6	ADDR5	ADDR4	ADDR3	ADDR2	ADDR1
1	0	0	0	0	0	0
2	0	0	0	0	0	1
·	·	·	·	·	·	·
·	·	·	·	·	·	·
·	·	·	·	·	·	·
64	1	1	1	1	1	1

BAUD RATE	BAUD2	BAUD1
9600	0	0
19200	0	1
57600	1	0
115200	1	1

PARITY	PARITY2	PARITY1
NONE	0	0
ODD	0	1
EVEN	1	0

The following dedicated modbus registers are assigned to digital inputs and digital outputs.

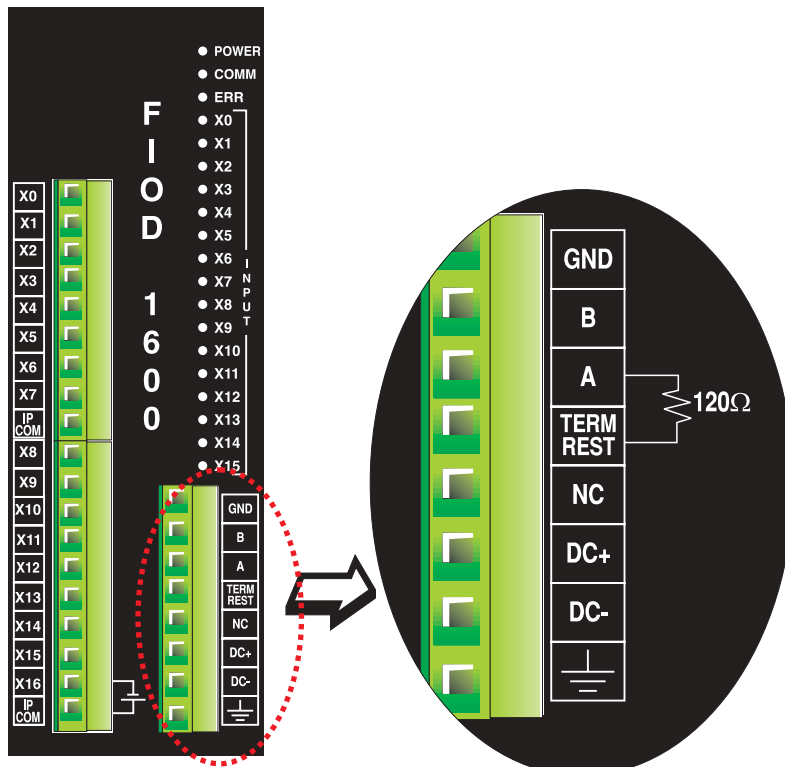
Digital I/P	MODBUS Tag.	
	Input Register	Input Coil
I/P1 (X0)	40001_0 (Bit 0)	00001
I/P2 (X1)	40001_1 (Bit 1)	00002
I/P3 (X2)	40001_2 (Bit 2)	00003
I/P4 (X3)	40001_3 (Bit 3)	00004
I/P5 (X4)	40001_4 (Bit 4)	00005
I/P6 (X5)	40001_5 (Bit 5)	00006
I/P7 (X6)	40001_6 (Bit 6)	00007
I/P8 (X7)	40001_7 (Bit 7)	00008



FIOD 1600 Manual

Digital I/P	MODBUS Tag.	
	Input Register	Input Coil
I/P9 (X8)	40001_8 (Bit 8)	00009
I/P10 (X9)	40001_9 (Bit 9)	00010
I/P11 (X10)	40001_10 (Bit 10)	00011
I/P12 (X11)	40001_11 (Bit 11)	00012
I/P13 (X12)	40001_12 (Bit 12)	00013
I/P14 (X13)	40001_13 (Bit 13)	00014
I/P15 (X14)	40001_14 (Bit 14)	00015
I/P16 (X15)	40001_15 (Bit 15)	00016

Port Details (2 Wire RS485 Port): -



For using internal termination resistor (120 Ohm), short "B" and "TERM REST"



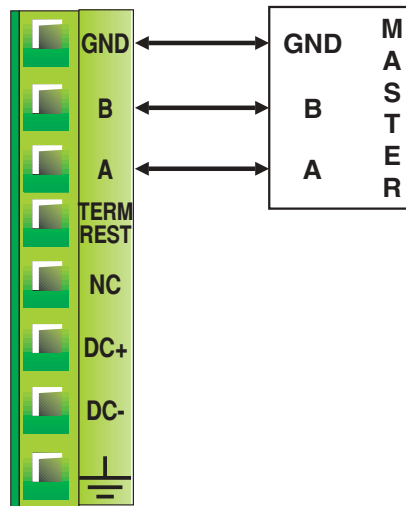
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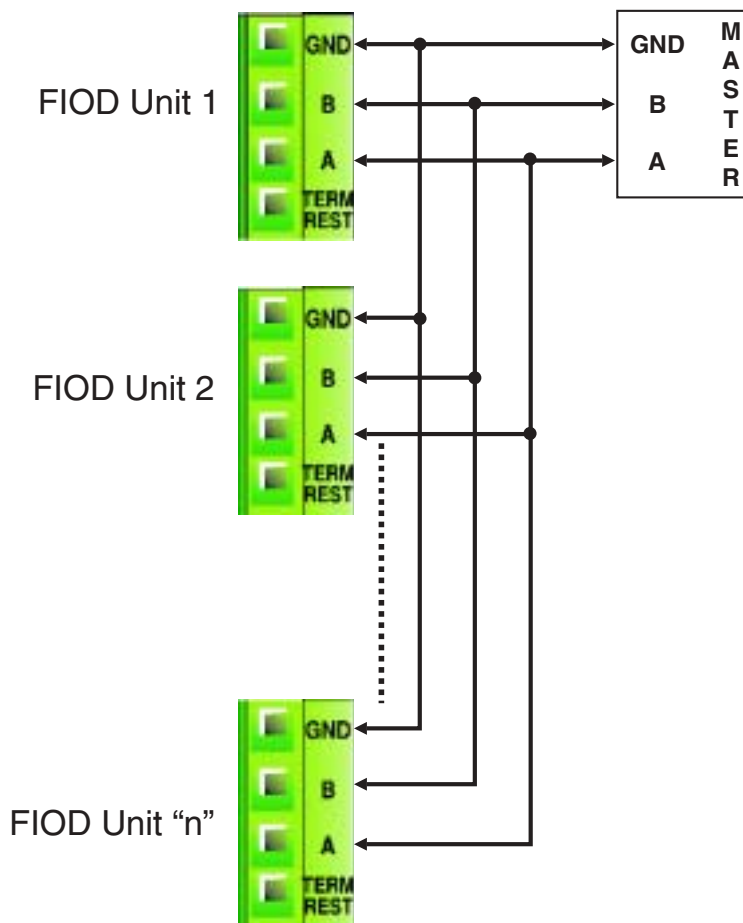
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Multidropping connection: -



Note: Where "n" is up to 32. Connecting repeater can increase it to 64.



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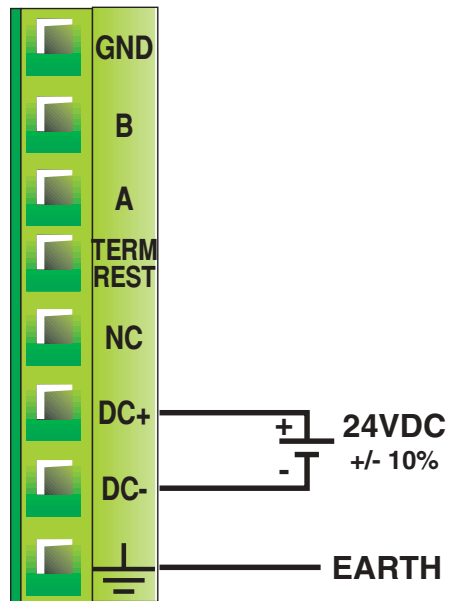
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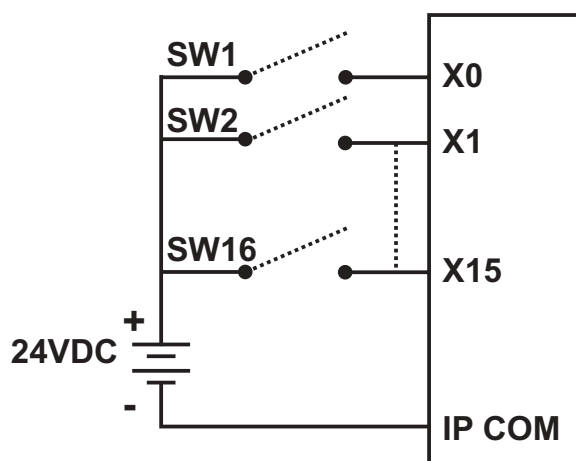
Power Supply Connection: -



Wiring Diagram: -

Digital Inputs should be wired as given below:

Wiring Diagram for testing Digital Inputs



Closing SWx will turn on respective inputs.



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Notes:

MANUAL REVISION

If you contact us in reference to this manual, please include the following document number

Name : User Manual For FIOD1600
Part Number : URML402
Document : UMAN\FIOD-1600\1106
Revision : 2

Revision Number	Document Number	Date	Description
Rev 1	UMAN\FIOD-1600\1106	22-11-2006	Panel dimensions and port details are added.
Rev 2	UMAN\FIOD-1600\1106	29-11-2006	Power supply, multidropping wiring added.



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