



Quick Start
Manual for

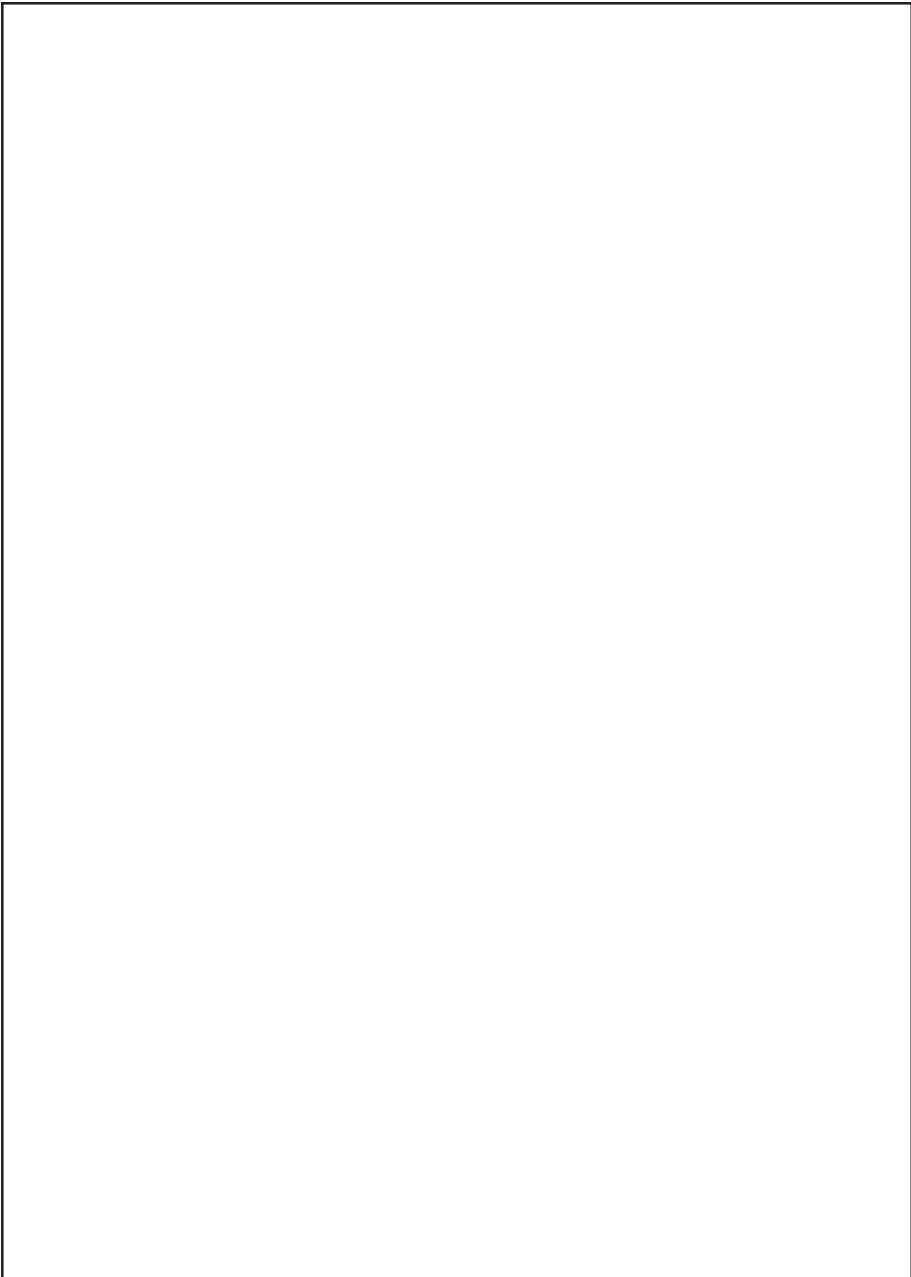
HI0808R



DITEL (Diseños y Tecnología, S.A.)

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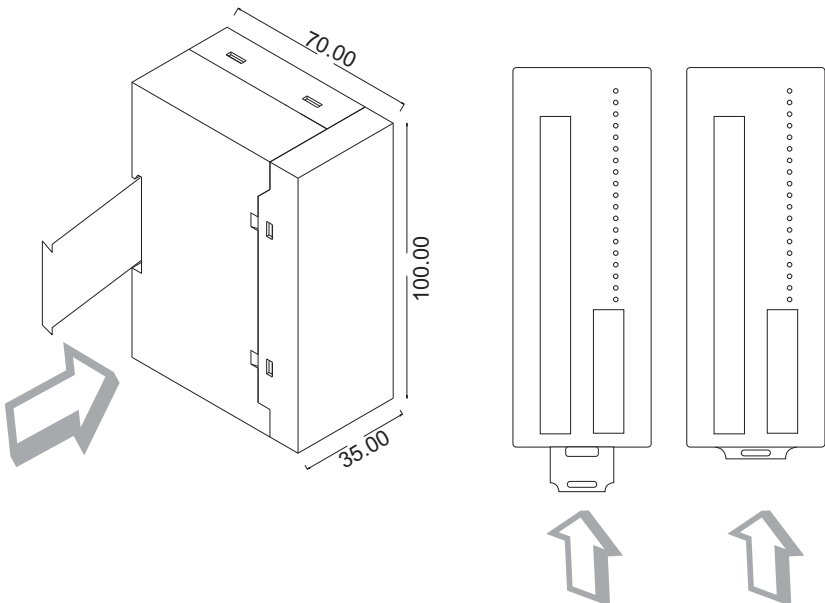


The HIMOS series products add digital capability to your PLC / SCADA.

HI0808R model has 8 digital inputs and 8 relay outputs. The digital inputs and outputs are isolated from the host device. It has one (2 wires 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.

Dimensional details:

HI0808R 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 HI0808R with the DIN rail plate.



PLC Communication

The unit supports Modbus RTU (Slave) protocol. Dedicated modbus registers are used for tracking inputs and outputs. Unit scans all the inputs continuously and stores this information into Input register. Also the data is received from the output register and accordingly the digital outputs are set / reset.

The communication parameters and unit address are set by DIP switch.

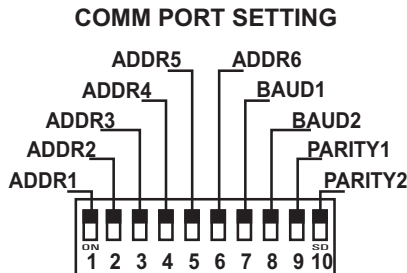
Specifications: -

- 1. Power Supply : 24 VDC +/- 10%
- 2. Digital Inputs : 0 to 5 V DC Low; 12 to 28 V DC High
- 3. Digital Outputs : 230V AC; 2 Amp. / 30V DC; 2 Amp.
Coil Voltage: 24VDC
- 4. Communication Port : 2 wire RS-485
- 5. I/O Terminals : Pluggable terminals.
- 6. Operating Temperature : 0°C to 60°C
- 7. Storage Temperature : -20°C to 80°C
- 8. Humidity : 10% to 90% (Non condensing)
- 9. Mounting : DIN rail mounting
- 10. 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 settings:



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

Digital O/P	MODBUS Tag.	
	Output Register	Output Coil
O/P1 (Y0)	40065_0 (Bit 0)	1025
O/P2 (Y1)	40065_1 (Bit 1)	1026
O/P3 (Y2)	40065_2 (Bit 2)	1027
O/P4 (Y3)	40065_3 (Bit 3)	1028
O/P5 (Y4)	40065_4 (Bit 4)	1029
O/P6 (Y5)	40065_5 (Bit 5)	1030
O/P7 (Y6)	40065_6 (Bit 6)	1031
O/P8 (Y7)	40065_7 (Bit 7)	1032

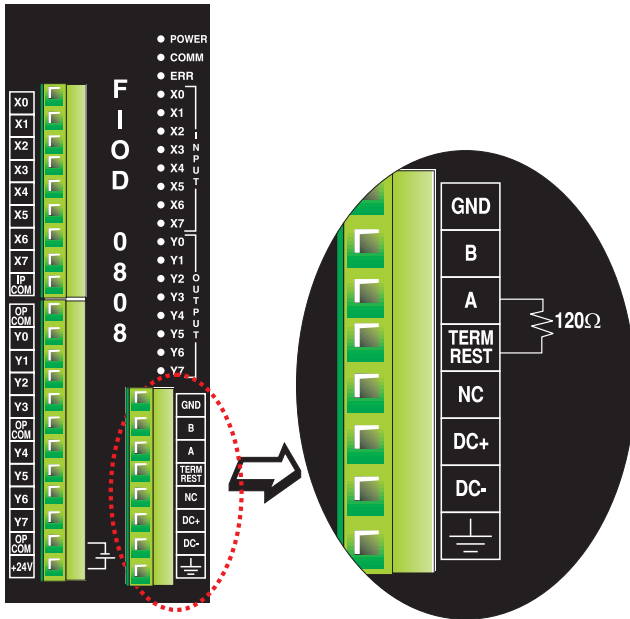
Modbus tag	Name of the tag	Type	Default	Valid Range	Description
40070	Communication Timeout for own frame	Retentive	0	(1 to 65535) times multiple of 100msec	Holds the communication timeout value. If unit doesn't receive it's own frame within this timeout period, it declares communication break.
40071	Communication timeout for ideal communication line	Retentive	0	(1 to 65535) times multiple of 100msec.	Holds the communication timeout value. If communication line is completely ideal (No frame from master for other slaves also) within this timeout period, unit declares communication break.
40072_bit0 OR Coil 01137	Selection bit	Retentive	0	1 or 0	If 1, timeout value from 40070 is selected If 0, timeout value from 40071 is selected

Note:

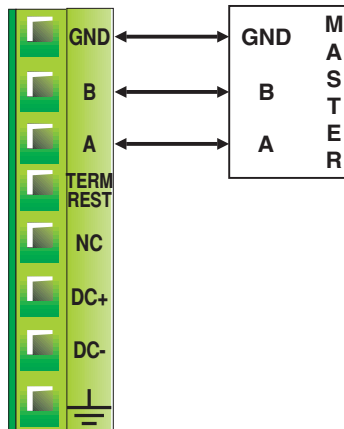
The default timeout is 10sec.

In case of communication break with the host all the outputs are switched OFF after the timeout period is over.

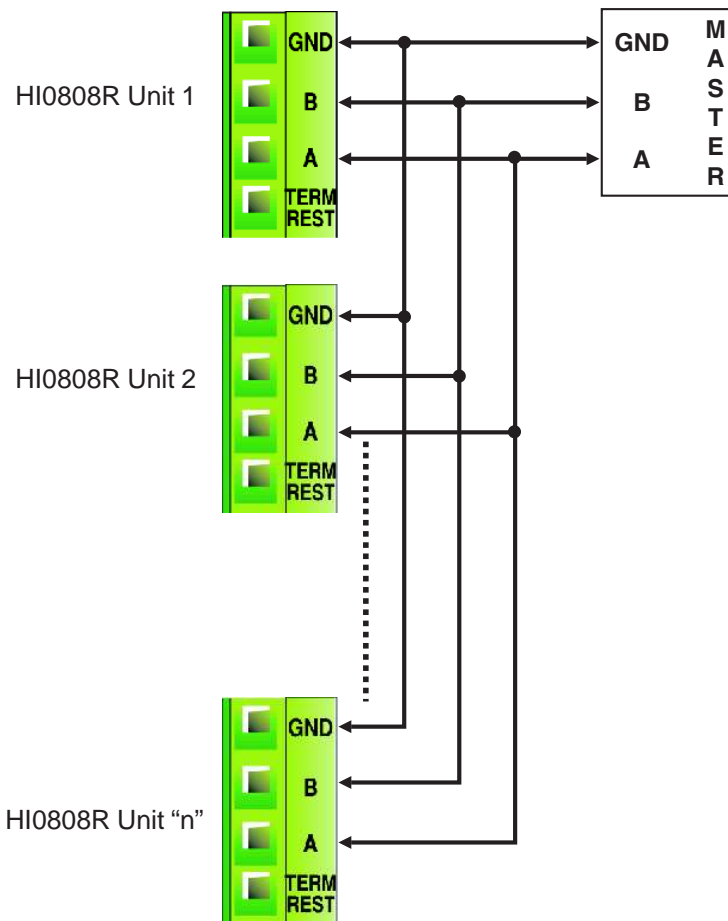
Port details (2 wires RS485 port):



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

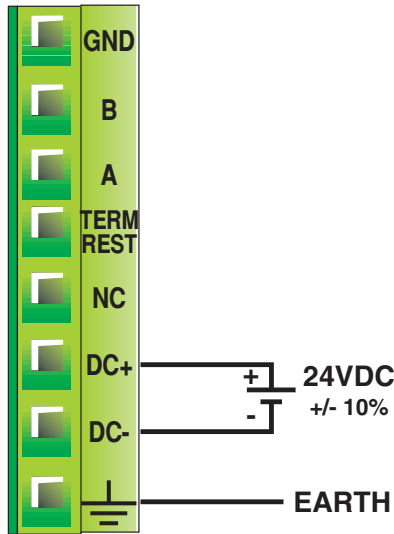


Multidropping connections:

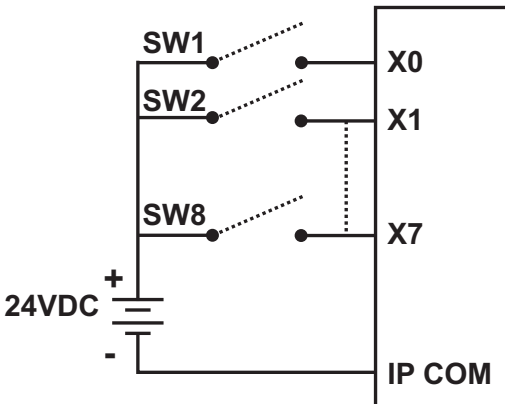


Note: Where "n" is up to 32. Connecting repeater can increase it to 64.

Power supply connections:



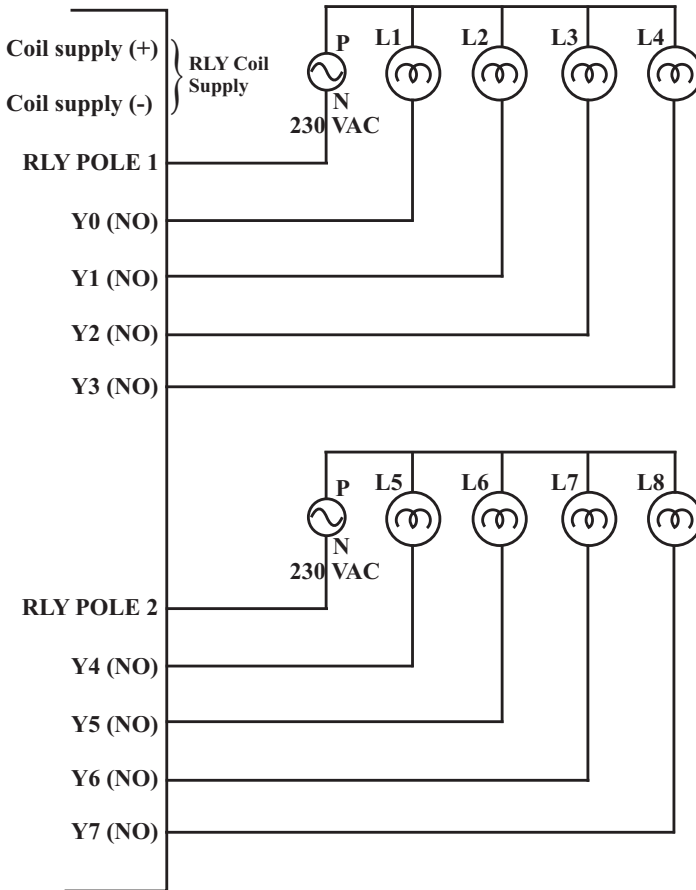
Wiring Diagram for testing Digital Inputs



Closing SWx will turn on respective inputs.

Wiring Diagram: -

Relay type digital outputs should be wired as shown below



*L1 to L8 are A.C. Load.

◆ Technical Support

For technical support please contact Ditel along with the unit serial number and revision number written on the address sticker of the unit. Also provide information of the PLC if used in application. Usually, including your application also provides a lot of help. If possible e-mail the application to us.

Ditel Support:
Phone: (00 34) 93 339 47 58
Email: himos@ditel.es

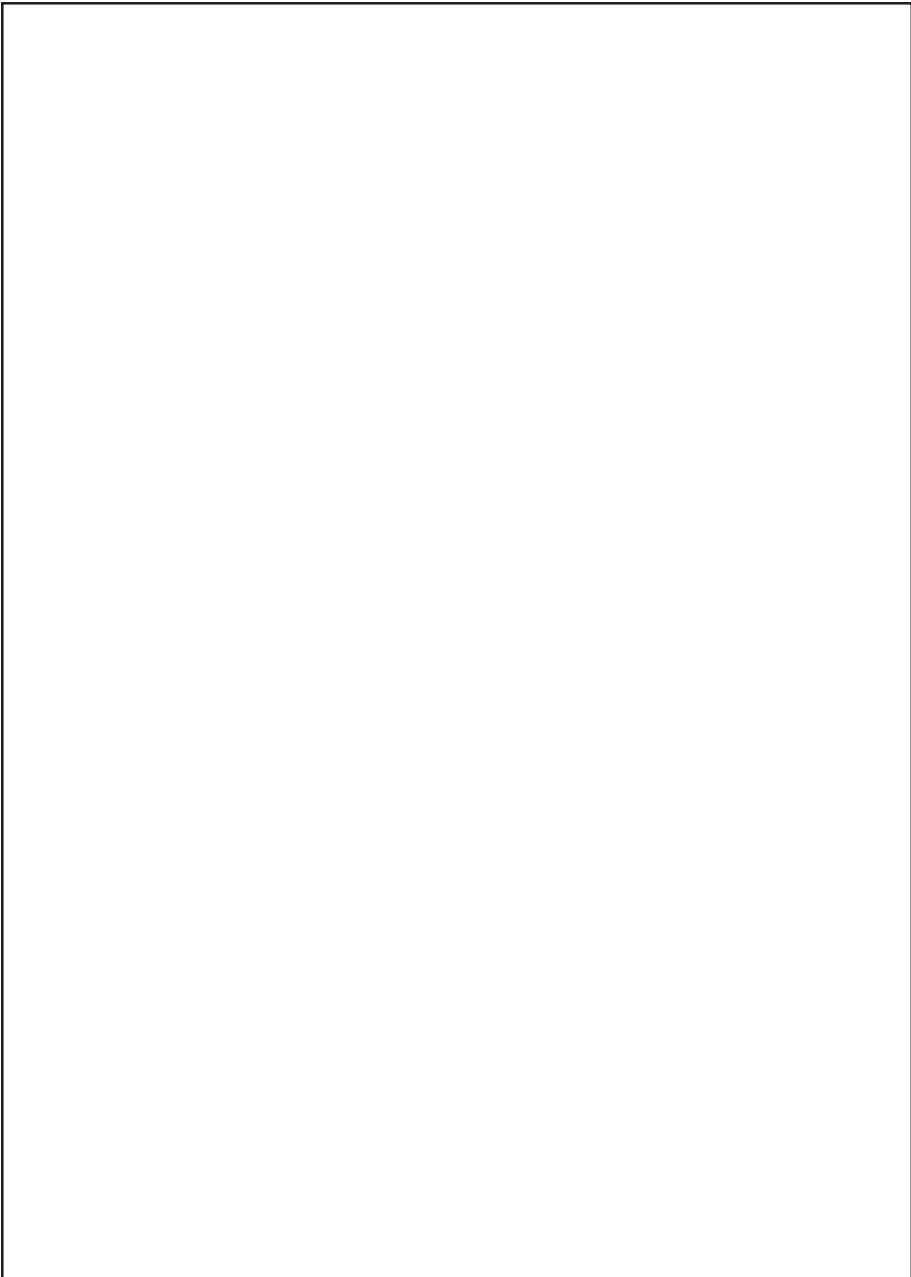
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MANUAL REVISION

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

Name : Quick Start Manual for HI0808R
Part Number : URML410
Document : QS/HI-0808/0407
Revision : 1

Revision Number	Document Number	Date	Description
Rev 1	30727318	23-04-2007	First Release.



Notes :