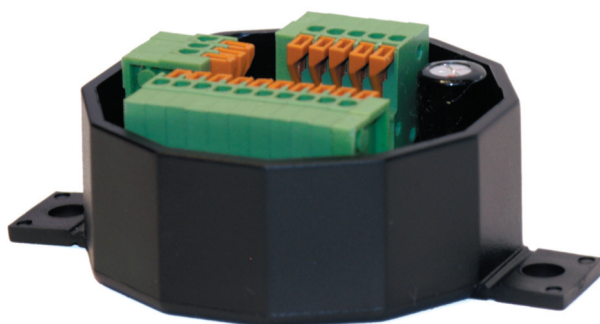




**BARIX**

**X8**

## **I/O to RS-485 Modbus converter for commercial interfacing, control and home automation applications**



8 configurable inputs/outputs (TTL-level)

Presetable power-on value for outputs

RS-485 serial interface

Protocol: Modbus/RTU

Connects to LED displays, buttons, temperature and humidity sensors

Converts WIEGAND reader interface to RS-485 serial interface

Barix AG  
Seefeldstrasse 303  
CH-8008 Zürich  
Switzerland  
T +41 43 433 22 11  
F +41 44 274 28 49

Barix Technology Inc.  
2182 Helena Road  
St. Paul, MN 55128  
USA  
T (866) 815-0866  
F (209) 755-8435

[www.barix.com](http://www.barix.com)  
[info@barix.com](mailto:info@barix.com)

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## Technical Specifications

### Connectors:

Power/RS-485, I/O (I/O, 5Vout,GND) and service interface on spring contact connector blocks for wires AWG 28 – AWG 16 / 0.08 – 1.3 mm<sup>2</sup>

### Inputs / Outputs:

8 I/O's (usage and power-on preset configurable over RS-485) on spring contact connector block for wires AWG 28 – AWG 16 / 0.08 – 1.3 mm<sup>2</sup>

Inputs with internal 10 kOhm pull-up

Max total 5 Vout & outputs current @ (V supply):  
24 mA (30 VDC), 32 mA (24 VDC), 85 mA (12 VDC)

### RS-485 / Protocol:

RS-485 (2-wire), 9'600/19'200 Baud , 8 bit, Even/No parity software configurable, Modbus/RTU protocol

### Misc:

1 LED for power indication

1 LED for RS-485 active send indication

2 LED for internal status indication

External connector for default settings jumper

### Power supply requirements:

12 to 24 VAC / 9 to 30 VDC, 1 Watt max.

### Case:

high quality plastic, 33 g, Ø 2" (2.75" mounting )

h 0.9" / Ø 51 mm (70 mm mounting) h 23 mm

### Reliability,environmental conditions:

MTBF: Min. 59'000h acc. to MIL217F at 24 VDC

supply and 40°C ambient temperature

Operating temp.: 0 to +40°C / 32 to 104°F,

storage temp.: 0 to +70°C / 32 to 158°F,

both 0 - 70% relative humidity, non-condensing

### Conformity:

FCC (A and B), CE ( A and B)

Emission EN60730-1:2000 (Class B)

Immunity EN60730-1:2000

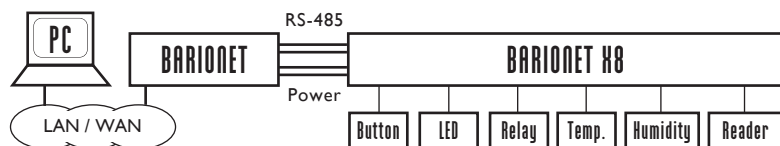
## Overview

Barix X8 is I/O to RS-485 Modbus converter for commercial interfacing, control and home automation applications.

Using the industry standard Modbus protocol over 2-wire RS-485 the device can be controlled from any Modbus capable master.

Eight independent configurable inputs/outputs allow the use of the Barix X8 in a wide range of I/O applications:

- General I/O to RS-485 converter (inputs and outputs)
- WIEGAND reader to RS-485 converter (inputs and outputs)
- Up to eight push buttons (inputs) or LED's for status display
- Local temperature and humidity reading (inputs)



The eight I/O ports support TTL level (5 VDC) with limited current range for outputs (supply voltage depending, 24 to 85 mA total). For applications with industrial voltage level (10 to 30 VDC) and higher currents (max. 6 A total) select the Barix Barionet IO 12 instead.

Over the RS-485 interface each I/O port can be configured as either an input or an output. Outputs can be preset with a power-on value. I/O ports can be configured to support up to 16 I-wire temperature sensors, one humidity sensor and an access reader supporting the WIEGAND interface (data, tampering alarm, buzzer and LED).

Barix X8 supports Modbus/RTU protocol speeds of 9'600 and 19'200 Bauds, with and without parity. A 4-wire cable (2 bus, 2 power) can be used to connect other Modbus devices in a bus or a star configuration. Up to 31 Barix X8 converters can be directly connected to a Modbus master such as the Barix Barionet and can be increased to up to 250 converters using standard RS-485 repeaters.

Using the Barix Barionet, the Barix X8 can be controlled by a local Basic application (BCL) as well as remotely using TCP, UDP, Modbus/TCP and SNMP.

Two mounting brackets with 5 mm holes allow mounting on surfaces but can be removed (predetermined braking line) if not used.

For further information, distribution partners, detailed technical specifications and information about other versions and products please visit [www.barix.com](http://www.barix.com)