



## Modbus®

[www.airedale.com](http://www.airedale.com)

### Modbus® Serial Card

The Modbus® Protocol was introduced in the 1970s and has now become one of the most widely used protocols in the Building Management industry.

The Airedale AireTronix controllers are able to communicate directly using the Modbus® protocol. The Modbus® card is a small PCB (60mm x 30mm), which can be plugged into the AireTronix controller to provide it with the following protocol support:

- > Modbus® - JBus slave
- > RTU mode (Remote Terminal Unit) with 8 bit encoding and error handling using 16 bit CRC
- > Communication standard connection options of RS485 (multipoint) or RS232 (point-point)
- > Maximum Baud Rate of 19200

The data communication is asynchronous serial, 8 data bits, 2 stop bits and no parity (in total 11 bits/datum).

The data/parameters from the AireTronix controller is represented within Modbus® registers, each register containing information pertaining to temperatures, pressures, setpoints, status, etc and is available to the site integration company in a spreadsheet format.

The table below gives details for the "Function Code" types & Modbus Address supported by the Modbus® serial card

Carel Variable Type	Carel Address	Modbus Variable Type	Modbus Address
Digital	1	Coil	1
Digital	2	Coil	2
Digital	...	...	...
Digital	182	Coil	182
Digital	183	Coil	183
Analogue	1	Register	1
Analogue	2	Register	2
Analogue	...	...	...
Analogue	91	Register	91
Analogue	92	Register	92
Integer	1	Register	129
Integer	2	Register	130
Integer	...	Register	...
Integer	116	Register	240
Integer	117	Register	245