



## Modbus® Interface card

### 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 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 of RS485 (multipoint)
- > Maximum Baud Rate of 19200

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	...	Coil	...
Digital	183	Coil	183
Analogue	1	Register	1
Analogue	...	Register	...
Analogue	92	Register	92
Integer	1	Register	1
Integer	...	Register	...
Integer	117	Register	117

# Modbus®

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 controller are 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.

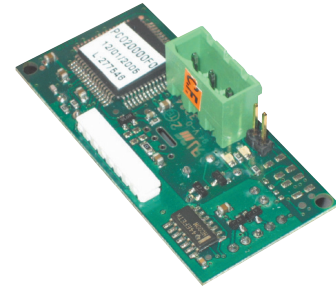
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## Building automation and control

Table below shows an example of data included in Modbus® points list.

Variable	Type	Location	Read/Write	Description
Digital	Digital	8	Read Only	Compressor 1 Status
Digital	Digital	27	Read Only	Compressor 1 Trip Alarm
Digital	Digital	69	Read/Write	Reset All Alarms by BMS
Analogue	Analogue	1	Read Only	Actual Room Humidity
Analogue	Analogue	6	Read/Write	Room Temperature Set Point
Analogue	Analogue	9	Read Only	Actual Liquid Line Pressure
Integer	Integer	1	Read Only	Main Fan Run Hours High
Integer	Integer	2	Read Only	Main Fan Run Hours Low
Integer	Integer	11	Read Only	Humidifier Conductivity



## Modbus® Interface card

Part No. 6272561



## Trend compatibility

Modbus® cards can comply with the Trend systems via Xtend or EINC.

## Programming cards

All cards are configured for a particular unit by Airedale Controls and ready to be programmed. Alternatively an engineer site visit can be arranged to set up the device and make sure that everything works to the highest standards..

## Airedale Controls - additional services

- > Software program design that will manage everything in the air conditioning system, fine-tuning it for energy efficiency
- > Remote Monitoring Centre – a remote monitoring service for customers with critical sites
- > After-sales
- > Live demonstration and training centre

Contact Airedale Controls on +44 (0)113 239 1000 or [controls@airedale.com](mailto:controls@airedale.com)



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