



ProtoConvert Agilent - Modbus Gateway (PR-AGModbus)

- The gateway can read data from the Agilent data acquisition unit (34970A) over RS232 using the ASCII commands supported by the Agilent Logger.
- The Agilent data acquisition unit can have any of the following plug-in modules:
 - 34901A 20-Channel Armature Multiplexer
 - 34902A 16-Channel Reed Multiplexer
 - 34903A 20-Channel Actuator / General-Purpose Switch
 - 34904A 4x8 Two-Wire Matrix Switch
 - 34905/6A Dual 4-Channel RF Multiplexers
 - 34907A Multifunction Module
 - 34908A 40-Channel Single-Ended Multiplexer
- The gateway initiates the communication with the Agilent data acquisition unit.
- The gateway can be customised for any/all of the SCPI commands supported by the Agilent data acquisition unit.
 - For example:
 - Setting of the Function, Range and Resolution
 - Commands for temperature measurement and configuration
 - It is possible to start/stop scanning of channels.
 - Voltage/Current/Frequency/Resistance configuration commands
- The gateway behaves as the Master on the ASCII communication interface (RS232). The following parameters are configuration:
 - Baud Rate
 - Parity
 - Data bits
- The gateway stores the read data temporarily in the cache and then publishes it on Modbus RTU on requests. The gateway has a Modbus RTU slave interface and the following parameters are user configurable:
 - Modbus RTU Slave address
 - Baud Rate
 - Parity Data bits

Hardware specifications:

1. 1x RS485 port screw terminal
2. 1x RS232 port screw terminal
3. Power 12-24 V DC 110-220 V AC
4. Indicators RX TX
5. Supported Protocols: ASCII , Modbus RTU

Sample Modbus register map (customized as per requirement)

Input Register number	Agilent data acquisition unit slot number	Channel number
30001	1	1
30002	1	2
30003	2	1
30004	2	2
30005	3	1
30006	3	2
Extended as per requirement		

Block Diagram:

