**Versatronik® 502 & 502D NR2/Modbus**  
Communication Gateway

120VAC Wall-mount  704087  
24VAC DIN-rail mount  704088

**Effective Date:** July 3, 2012

### Product Overview
The Versatronik® 502 and 502D NR2/Modbus gateway allows Viessmann® NR2 controls to remain operational in Autobinding mode, while providing information to BAS, BMS/DDC systems. These gateways provide a communication translation between applicable controls and BMS systems which are capable of Modbus communications.

The gateway may be either part of a control panel or stand-alone control device.

### Special Features
**Available data points** *(readable)*:
- Boilers 1-4 actual temperature
- Boilers 1-4 actual return temperature sensors 1 and 2
- Boilers 1-4 actual flue-gas temperature
- Boilers 1-4 fault code
- Boilers 1-4 relay state
- Zone/ cascade/ boiler outdoor temperature
- Zone/ cascade/ boiler relay state
- Zone/ cascade/ boiler fault code
- Zone/ cascade/ boiler DHW actual temperature
- Zone/ cascade/ boiler zones A1+M2+M3 supply actual temperature
- Zone/ cascade/ boiler zones A1+M2+M3 curve shift
- Zone/ cascade/ boiler DHW setpoint
- Zone/ cascade/ boiler zones A1 + M2 + M3 supply setpoint
- Zone/ cascade/ boiler zones A1 + M2 + M3 curve slope
- Zone/ cascade/ boiler zones A1 + M2 + M3 curve room temperature normal
- Zone/ cascade/ boiler zones A1 + M2 + M3 curve room temperature reduced
- °C or °F selectable

Please note that these features are a function of boiler control manufacturer programming.

Please refer to the technical instruction manual of your boiler control for a complete list of points available for each control.

**Specifications**

**Electrical:**
- 120VAC Wall-mount or 24VAC DIN-rail mount

**Power Requirements:**
- 120VAC Wall-mount: MAX 7.5W
- 24VAC DIN-rail mount: MAX 12W

**Recommendations:**
Avoid running wires beside or near high voltage 120/240VAC conductors. If proximity to high voltage conductors cannot be avoided, use stranded, twisted pair of shield design wire. Ensure that only one end of the shielding is grounded.

**Appearance and Weight:**
120V Wall-mount:  
**Mounting style:** Wall  
(field-supplied screws)  
**Supply Voltage:** 120VAC  
(power cord supplied)  
**Dimensions:** 8” X 6.5” X 1.75”  
(200 X 165 X 45 mm)  
**Weight:** 3.55 lbs (1.6 Kg)  
**Appearance:** galvanized steel base with white metal cover

24VAC DIN-rail mount:  
**Mounting style:** DIN-rail  
**Supply Voltage:** 24VAC  
(power supply not included)  
**Dimensions:** 6.25” X 3.5” X 2.25”  
(160 X 90 X 60 mm)  
**Weight:** 0.5 lbs (225 Grams)  
**Appearance:** tan-coloured enclosure

**Currently Supported Devices:**
- Vitocontrol-S, MW1 and MW2
- Vitotronic 100, GC1
- Vitotronic 300, GW2
- Vitotronic 200, HO1
- Vitotronic 100, KK10LON
Additional Information

Surroundings:
Mount 120VAC gateway in a convenient location near the connected boiler control.

Mount 24VAC gateway onto DIN-rail within an enclosure in a convenient location near the boiler control.

Terminals:
- Two wire Modbus connections

External Diagnostics:
- Flashing LED fault diagnostic

Programming:
Setting registers

Networks:
- Modbus

Wiring:
- Modbus RS-485 Network
  COM1 terminals A and B are used.

Protocols:
- Modbus and LON® to boiler controls

Agency Compliances:
The 120VAC wall-mount unit is CSA compliant.

Modbus Communication

Configuration Settings
The gateway is a Modbus slave and all communication has to be initiated by a master. To set up successful communication with the gateway all connection parameters have to be set correctly to the following: 9600 8-N-1 RTU.

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<th>Mode</th>
<th>RTU</th>
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<tbody>
<tr>
<td>Baud Rate</td>
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