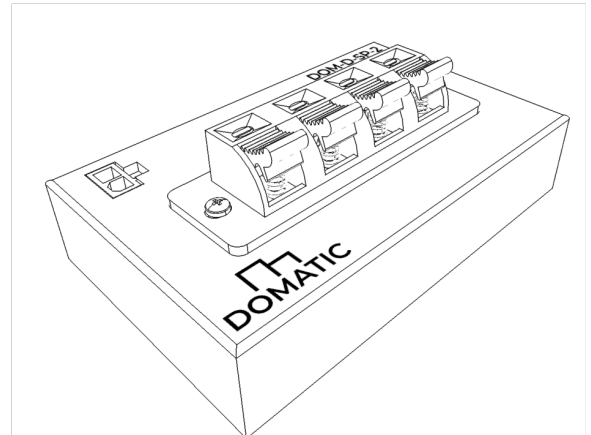


HVAC Bridge

DOM-D-HC-1 | RS485 | MODBUS · BACnet | Domatic Bus

The HVAC Bridge connects building HVAC equipment — thermostats, controllers, AHUs, VAVs, and other RS485-based devices — to the Domatic Bus. It exposes a single RS485 channel that speaks MODBUS, BACnet, and other RS485 protocols, with per-device protocol handling implemented in software via the Domatic PowerHub.

A single Domatic Bus connection provides power and PowerHub control; the RS485 side connects to one or more downstream HVAC devices following standard multi-drop wiring practice.



Key Features

- ✓ Single RS485 channel for HVAC and building-automation equipment
- ✓ Speaks MODBUS and BACnet today; additional RS485 protocols added through PowerHub firmware updates
- ✓ Per-device addressing, polling, and reporting handled in PowerHub software
- ✓ Native Domatic Bus interface — power and control on a single 2-wire CL2 input
- ✓ Brings third-party HVAC, BMS, and industrial RS485 devices onto the Domatic Bus
- ✓ No separate power supply required at the bridge

Supported Protocols

Protocol	Notes
MODBUS RTU	Standard RS485 industrial / HVAC protocol
BACnet MS/TP	Standard building-automation protocol over RS485
Other RS485 protocols	Additional protocol support added via PowerHub firmware — no hardware change required

Note This list reflects protocols supported today. Specific device support for any given HVAC unit also depends on a PowerHub-side device profile; contact Domatic to request support for a particular vendor or model.

Electrical Specifications

Input — Domatic Bus

Input Voltage	Nominal 48 VDC (Domatic Bus)
Communication	Domatic Bus (IEEE 1901 HD-PLC over the same 2-wire pair as power)
Power Source	Domatic PowerHub output port
Max Input Power	TBD

Output – RS485

Channel Count	1× RS485 multi-drop
Baud Rate Range	TBD
Max Nodes on Bus	TBD
Max Cable Length	TBD
Termination	TBD
Biasing	TBD

I/O Configuration

I/O	Connector	Description
Domatic Bus Input	Molex Mini-Fit, 2-pin	48 VDC and Domatic Bus protocol on the same pair. Mates with PowerHub output ports.
RS485 Output	TBD	Multi-drop RS485 channel – A/B differential pair plus shared ground reference. Connects to MODBUS, BACnet, or other RS485 device(s) downstream.

PowerHub Integration

Controller	Domatic PowerHub (required)
Protocol Support	Implemented in PowerHub firmware; new protocol families can be added without changing the bridge hardware
Configuration	Per-device addressing, register / object maps, poll intervals, and unit conversions – software-configurable via the PowerHub
Reporting	Live values from connected HVAC devices reported to the PowerHub for use by other Domatic applications

Mechanical Specifications

Dimensions	TBD
Weight	TBD
Enclosure Material	TBD
Mounting	TBD

Environmental Specifications

Operating Temperature	TBD
Humidity	TBD
Installation	Indoor only (assumed – confirm)

Standards & Compliance

Safety	TBD
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Power Source	NEC Class 2 from the PowerHub output
Output	RS485 (TIA/EIA-485)

Ordering Information

<i>Model Number</i>	<i>Description</i>
DOM-D-HC-1	HVAC Bridge – Single RS485 channel (MODBUS / BACnet / other), Domatic Bus

DRAFT