

OS537MH

Configurable Wall
BACnet MS/TP & WiFi Controller



OPEN STAT

Description

- Configurable Wall Controller
- ASHRAE G36 Compliant Applications
- FCU, RTU, HP, WSHP, VAV & AHU
- 15 I/O: 5 UI, 3 AO, 7 BO
- Temp, RH%, and Motion: *Standard*
- CO2: *Optional*
- BACnet MS/TP: **B-BC BTL Certification (Pending)**
- **BACnet WiFi IP w/ WEB services: B-BC BTL Certification (Pending)**



Model	Temp, RH%, Motion	BACnet WiFi	CO2 NDIR
OS537MH	X		
OS537MHC	X		X
OS537MHW	X	X	
OS537MHCW	X	X	X

Application

The OS537 controller streamlines the management of standard HVAC equipment such as FCU, RTU, HP, WSHP, VAV, and AHU. The OS537 provides numerous configuration profiles, offering flexibility to align with diverse project requirements.

Technical Specifications

Power supply:

- 24 VAC/VDC \pm 15%; Class 2

Current Consumption:

- 1.5 VA controller only
- 96 VA Max including BO's 2A each

Communication Protocols:

- BACnet MS/TP half-wave device
- Baud 9600, 19200, 38400, 76800 Bps (76800 default) RS485 transceiver is a 1/4 load device
- Mini USB2 MS/TP network access
- Optional WiFi6 2.4Ghz BACnet IP module with integrated WEB services that fully supports REST API's
- BTL listed: B-BC, BACnet Building Controller

Hardware

- Microprocessor: STM32 (ARM Cortex™ M33) 32 bits
- CPU Speed: 250 MHz
- Memory: 2 Mbytes non-volatile Flash
- RAM: 640 KB SRAM
- Real-time clock (RTC): Built-in capacitor (one-week backup)

Configuration

- Configurable using the local buttons, writing to the BACnet configuration objects or utilizing the embedded WEB page services or Strato Software tools.

Inputs:

- 5 Universal Inputs (AI/BI)
 - Thermistor 10K Ω (type 2 or 3)
 - Dry contact, 500 ms minimum (On-Off)
 - Voltage 0 - 10 Vdc (Input impedance of 100 K Ω)
 - Current 0-20 / 4-20 mA (Input impedance of 162 Ω)
 - Resolution: 12 Bits (4096 segments)

Outputs:

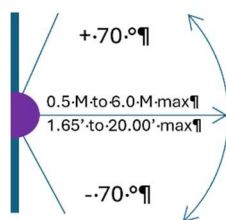
- 7 Binary Outputs
 - MOSFET Solid State Relays, Isolated
 - Zero cross-fired
 - 10 to 30VAC, 2.0A max
- 3 Analog Outputs
 - Voltage 0 - 10 VDC linear

Humidity & Temperature Sensors

- Sensirion™ SHT40
- \pm 1.8 RH @ 25-75% RH overall \pm /- 3%
- ... \pm 0.2 °C @ 0 °C to 60 °C

Radar Motion Detection Sensor:

- Operating Principle: Radar cross section optimized for human being
- Detection Distance: 0.5 to 6M maximum
- Detection angle of \pm 70 degrees



CO2 Sensor: Telaire™ T6713

- Self-calibrating, non-dispersive infrared (NDIR)
- Sensor Range: 400-2000 PPM
- Accuracy: \pm 30 PPM @ 3% of reading
- Accuracy is valid after a minimum of 2 weeks of continuous operation.
- Response Time of 3 minutes

Mechanical:

- Dimensions: W 3.58" (91 mm) x H 4.92" (125 mm) x D 0.98" (25 mm)
- Stacking temperature: -30 °C to 50 °C / -22 °F to 122 °F
- Operating conditions: 0 °C to 50 °C / ...°F to 113 °F 10% to 90% H.R. without condensation
- Mounting type: Standard 2" x 4" electrical junction box
- Enclosure: White color, PCABS material UL94V0

Warranty: 1 Year

Certifications:

- UL 916 Energy Management Equipment
- BTL listed: B-BC, BACnet Building Controller

