



Overview:

The VTRM20-XP Series Controllers are wall-mounted VAV controllers for pressure-independent or dependent control, with zone heating/cooling options. They feature built-in CO2, humidity, VOC measurements, and Modbus RTU or BACnet MS/TP communication. Optional features include a touchscreen, PIR sensor, Bluetooth, and LoraWan connectivity.

Feature:

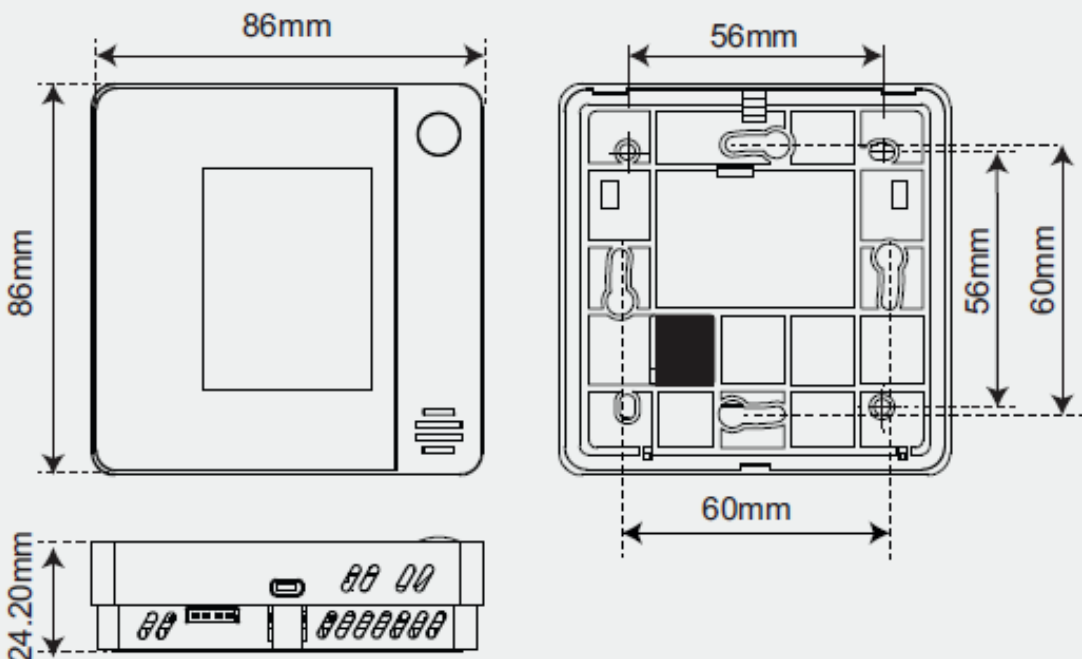
- Advanced room controllers for VAV and other control applications.
- Accurate multi- and single-stage PI control for temperature, humidity, CO2, and VOC, with pressure-independent flow logic.
- Supports BACnet MS/TP and Modbus RS485 RTU with industrial isolation, and optional LoraWan® communication.
- 2.4" color touchscreen for user interaction and alarms, with blank versions available for discreet use.
- Built-in CO2 measurement, multiple inputs/outputs, and wireless configuration via Bluetooth or smartphone apps.

VTRM20-XP

Series Controllers



Dimensions:





Specifications:

VAV (Variable Air Volume) controllers

Power Supply	24Vac/dc -10%/+15%, max 80mA with display		
Measurements	Temperature	Range	0..50° (32..122°F)
		Accuracy	"±-0.5°C"
	Humidity(Optional)	Range	0..100%rh
		Accuracy	"±-2%rH (within 20 to 80%rH)"
	CO2	Range	0..10,000ppm
		Accuracy	"±-50ppm + 5% of the reading"
	VOC (Volatile Organic Compound)	Range	0..500 (Air Quality Index)
PIR Movement (Option)	Range	Passive Infrared Movement Detection, Range up to 5m	
Inputs	Flow/Pressure Input	1 x Flow/Pressure Input - 0-10Vdc, optional flow calculation from k-value	
	Universal Input	1 x Universal Inputs - RI/AI/DI Application Selected RI = NTC10 Measurement / Resistive AI = 0..10Vdc Input	
Outputs	Analogue Outputs	4 x 0..10Vdc, min. load resistance >5 kOhms (max. 2mA @ 10V)	
	Relay Outputs	RL Option: 1 x 24V Pilot Relay, max 0.25A	
Communication	Physical Interface	1 x RS485 driver, recommended max 63 devices	
	Protocol	Modbus RTU or BACnet MS/TP (order relevant model)	
	Addressing	Via Bitswitch: 1..127 Via Software: 1..247 for Modbus, 1..127 for BACnet MS/TP	
	Settings	Baud Rate: 9600/19200/38400/57600/76800/115200 (software) Modbus Parity: None/Even/Odd, Modbus Stop Bits: 1 or 2 (Default: 9600/None/1)	
Wireless Interface	Bluetooth (Option)	Bluetooth Low Energy - iOS Smart Phone App Interface	
	LoraWan (Option)	LoraWan® Wireless Interface (EU868, other bands available on request) Encrypted LoraWan® 1.0.3 Class C Device with secure	



NEO WAVE®

Mechanical	Wiring Terminals	Rising Cage Screw Terminals, 0.2 to 2.5mm ² / 26 to 12 AWG
	Enclosure	ABS ULV0 Plastics - White or Black
	Mounting	Wall or Junction Box Mounting (60mm screw distance)
	Dimensions	W86 x H86 x D24mm
Display	LCD Option	Optional 2.4" Full Colour Display with Glass Overlay, 240 x 320px

Ordering information:

Code and description		Remark
VTRM20-XP	VAV (Variable Air Volume) controllers	Model
1	MOD Modbus RS485	Communication Options
2	BAC BACnet MS/TP	
1	No Interface	Interface and Wireless Options
2	Colour Capacitive Touchscreen	
3	Bluetooth App Interface	
4	Touchscreen and Bluetooth	
5	LoraWan Wireless Interface, EU868Mhz	
6	LoraWan Wirelss Interface EU868MHz with Touchscreen	
1	No Extra Measurements	Measurement Options
2	Relative Humidity	
3	Volatile Organic Compound and Humidity	
4	Passive Infrared Movement (PIR)	
5	Relative Humidity and Movement (PIR)	
6	VOC, Relative Humidity and Movement (PIR)	
1	No Output Options	Output Options
2	24V Relay Output	
B	Black	Colour Options
W	White	