

QER12 - MER12 - VER12 - TER12

SLIMLINE SMART AIR QUALITY (CO₂, TVOC), TEMPERATURE AND HUMIDITY SENSORS



The xER12 (QER12/MER12/VER12/TER12) Series Smart Multi-Sensors have been designed for monitoring and control CO₂, VOC, Temperature, Humidity and Occupancy in room spaces.

The xER12 series sensors are Slimline flush (only 13.8mm from wall) mounted to standard wall mounting boxes.

The sensors can have an optional colour display with high hardness glass front, and/or additional PIR sensor.

Touchscreen option is available for network user interface functions and interactive sensor operations such as trending. Sensors have also integrated control loops, and can be used as network input/output module.

Optional Bluetooth wireless interface provides Smart Phone App interface (iOS). LoraWan option allows integration wirelessly to the LoraWan systems.

Programmed over serial cable or Bluetooth using PC or iOS Tools.



Technical Details Summary

Power: 24Vac/dc, max 80mA with Touchscreen

CO₂: Range: 0..5,000ppm
Accuracy: ±30ppm ±3.0% m.v.

Temperature: Range: 0..50° (32..122°F)
Accuracy: ±0.5°C (typical accuracy +/-0.3°C, 18-24°C)

VOC/TVOC: Volatile Organic Compound/Total Volatile Organic Compound
Range: Air Quality Index : 0..500
TVOC Ethanol: 17..4491 ug/m³ / / 9..2383 ppb
TVOC Molhave (WELL Building Standard®): 23..6621 ug/m³ / 5..1326 ppb
TVOC Isobutylene (RESET® Standard): 21..5482 ug/m³ / 9..2389 ppb
Device to Device Variation: ±10 index points

Humidity: Range: 0..100%RH

Accuracy: ±2%RH (within 20 to 80%RH)

PIR: Occupancy Detection, Range: 5m

Inputs: 2 x Universal Inputs, NTC10, 0-10V, Digital

Outputs: 4 x Analogue 0-10Vdc Outputs, max 2mA
1 x Optional 24V Pilot Relay, max 1.0A res.

Wired Network: Modbus RS485 or BACnet MS/TP, with 60V Fault Tolerance, 1/10 Unit Load

Wireless: Bluetooth Interface to Smartphone App or BLE
USB Dongle (PC Device Config Tool)
LoraWan® Wireless Interface (EU868, US915, AS923)

Display: Full Colour 2.4" LCD, 240x320px
Cover Glass Hardened ≥6H

Touch: Capacitive Touchscreen

Terminals: Rising Cage Screw Terminals, 0.2 to 2.5mm² / 26 to 12 AWG

Enclosure: ABS ULV0 Plastics - White or Black, IP30

Dimensions: W86 x H86 x D13.8mm (Surface Part)

Origin: United Kingdom

Part Number		SKU# Number	
Product Name		Code	Product Options
QER12	Slimline Room CO ₂ and Temperature Multi-Sensor, 2UI, 4AO, 24Vac/dc Supply	1020	
MER12	Slimline Room Humidity and Temperature Multi-Sensor, 2UI, 4AO, 24Vac/dc, 2% Acc	1120	
TER12	Slimline Smart Room Temperature Sensor, 2UI, 4AO, 24Vac/dc Supply	1220	
VER12	Slimline Room VOC, Humidity and Temperature Multi-Sensor, 2UI, 4AO, 24Vac/dc Supply	1320	
Communications Options			
MOD	Modbus RS485, Up to 60V Protection	1	
BAC	BACnet MS/TP, Up to 60V Protection	2	
Interface Options			
	No Interface		00
LCD	Colour Display		01
TS	Colour Capacitive Touchscreen		02
BLE	Bluetooth App Interface		03
LCD-BLE	Colour Display and Bluetooth		04
TS-BLE	Touchscreen and Bluetooth		05
LRA	LoraWan Wireless Interface, EU868Mhz		06
LCD-LRA	Colour Display and LoraWan Interface, EU868		07
TS-LRA	LoraWan Wireless Interface EU868 with Touchscreen		08
Measurement Options			
	No Extra Measurements		00
RH	Relative Humidity (QER Only)		01
RH-VOC	Volatile Organic Compound and Humidity (QER Only)		02
OE	Passive Infrared Sensor (PIR)		03
RH-OE	Relative Humidity and PIR (QER Only)		04
RH-VOC-OE	VOC, Relative Humidity and PIR (QER Only)		05
Output Options			
	No Output Options		00
RL	24V Relay Output		01
Colour Options			
B	Black		01
W	White		02

Order Example: QER12-BAC-TS-RH-B, SKU# 1020 202 01 00 01

