



**TELEDYNE INSTRUMENTS**  
*Advanced Pollution Instrumentation*  
A Teledyne Technologies Company

MODEL **465H**

# Process Ozone Monitor



- ▶▶ **UV Absorption Method**
- ▶▶ **Microprocessor controlled**
- ▶▶ **Menu driven software**
- ▶▶ **Ranges 0-5 to 0-25% w/w**
- ▶▶ **Built-in diagnostics**
- ▶▶ **Self-check warning alarms**
- ▶▶ **Fast response times**
- ▶▶ **Minimal zero drift**
- ▶▶ **Programmable auto-zero function included**
- ▶▶ **Programmable concentration alarms**
- ▶▶ **Temperature and pressure compensation (standard)**
- ▶▶ **Optional Ethernet**

The Model 465H is a microprocessor based high concentration ozone monitor for measuring ozone in process gas streams in water treatment, food processing, and research applications. The 465H has been designed to give accurate and stable readings over long time periods with little or no maintenance or calibration. The Model 465H is available in a 19" rack mount or NEMA 4X wall mount enclosure.

The sensor module contained in the Model 465H uses detectors which have a very narrow band of spectral sensitivity, eliminating the need for UV band pass filters which are subject to deterioration by UV or humidity. Two detectors are used: one for the ozone measurement, and the other to compensate for changes in UV lamp intensity. This unique design provides a sensor which will operate for extended periods without calibration or maintenance.

Built-in diagnostics provide warning signals in case operating parameters are out of range. Test values can be viewed while the Model 465H is operating. These displays, warnings, and self-diagnostics, along with the modular design, allow maximum uptime. In addition, any function that can be set or monitored from the front panel can be remotely set or viewed through the bi-directional RS-232 port.



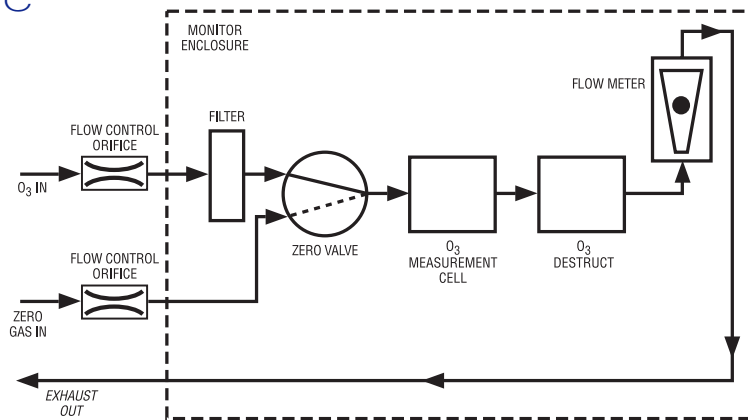
## MODEL **465H**

# Process Ozone Monitor

## Specifications

Measurement Principle:	UV Absorption (Beer Lambert Law)	Dimensions (H x W x D):	Rack Mount – 5.22" (133 mm) x 19" (483 mm) x 15.3" (388 mm)
Ranges:	0-5% w/w to 0-25% w/w 0-100g/Nm <sup>3</sup> to 0-400g/Nm <sup>3</sup>		NEMA 4X – 16.01" (407 mm) x 15.77" (401 mm) x 8.02" (204 mm)
Measurement Units:	% w/w, g/Nm <sup>3</sup>	Weight:	Rack Mount – 13.6 lbs (6.17 kg) NEMA 4X – 15.3 lbs (6.9 kg)
Accuracy:	± 1% of Full Scale	Power:	110-240V~, 50/60Hz, 1.1A
Precision/Repeatability:	± 0.5% of Full Scale	Analog Output:	0-5V or 4-20mA isolated output
Display Resolution:	0.01 % w/w, 0.1 g/Nm <sup>3</sup>	Status Outputs:	System OK, Invalid Reading, UV Lamp Fault
Response Time:	<5 seconds to 95%	RS-232 (Optional RS-485):	57.6 Kbaud, DB-9 connector
Compensation:	Pressure, Temperature (NTP = 273.15K, 760mmHg)	Approvals:	CE
Gas Inlet Pressure Range:	3.0 – 30.0 psig	Degree of Protection: (NEMA)	IP65 (NEMA 4X)
Gas Flow Rate:	0.2 – 2.0 LPM		
Temperature Range:	5-45°C		

## Schematic



## How to Order

### Model 465H includes:

- Flow control orifices
- Temperature and pressure compensation
- Analog output
- Status outputs
- RS232 (MODBUS RTU)
- Flowmeter
- Ozone Destructor
- Auto-Zero Valve

### Specify range:

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> 0-5% w/w  | <input type="checkbox"/> 0-100 g/Nm <sup>3</sup> |
| <input type="checkbox"/> 0-10% w/w | <input type="checkbox"/> 0-200 g/Nm <sup>3</sup> |
| <input type="checkbox"/> 0-15% w/w | <input type="checkbox"/> 0-300 g/Nm <sup>3</sup> |
| <input type="checkbox"/> 0-20% w/w | <input type="checkbox"/> 0-400 g/Nm <sup>3</sup> |
| <input type="checkbox"/> 0-25% w/w |  |

### Specify output voltage:

- |                               |                                 |
|-------------------------------|---------------------------------|
| <input type="checkbox"/> 0-5V | <input type="checkbox"/> 4-20mA |
|-------------------------------|---------------------------------|

### Additional Options:

- |   |
|---|
| <input type="checkbox"/> Ethernet (MODBUS TCP/IP) |
| <input type="checkbox"/> Rack Mount               |
| <input type="checkbox"/> NEMA 4X Enclosure        |

Specifications subject to change without notice. M465H/3.08



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