

WIRING CONVERSION KIT FOR WDG-IV RETROFITS



The WDG-V Series Combustion Analyzer brings many enhancements over its predecessor, the WDG-IV, to ensure the safe operation of the Burner Management System.

As users upgrade their WDG-IV combustion analyzers, this wiring conversion kit allows the WDG-V to reuse the existing interconnect cables, simplifying the time and cost of installation. The WDG-V analyzer and AMEvision can be placed in the same locations as the WDG-IV sensor and Series 2000 controller – without laying new wires.

AN OPTION BUILT INTO THE AMEVISION

The wiring conversion kit is built into the AMEvision HMI Host Display as an optional feature. The kit includes side-entry conduit points and a 12-pair terminal strip. The terminal strip is labeled and includes a wiring diagram (see next page) to allow users to land the existing interconnect cable from the Series 2000 to the AMEvision.

RE-USE OF EXISTING CABLES

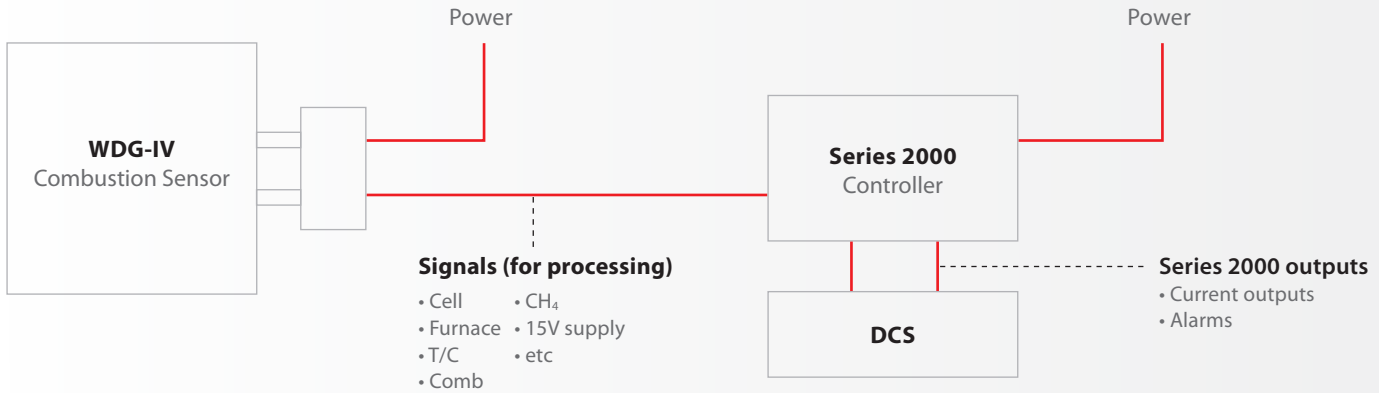
This conversion kit allows the WDG-IV sensor and Series 2000 controller to be retrofitted to the WDG-V platform without laying new interconnecting cables. As a new option to the AMEvision, this kit utilizes the existing interconnect Beldon cable from the Series 2000 controller to bring the desired signals from the WDG-V sensor to the AMEvision (at the former location of the Series 2000).

4-20 mA SIGNALS WITHOUT RE-WIRING

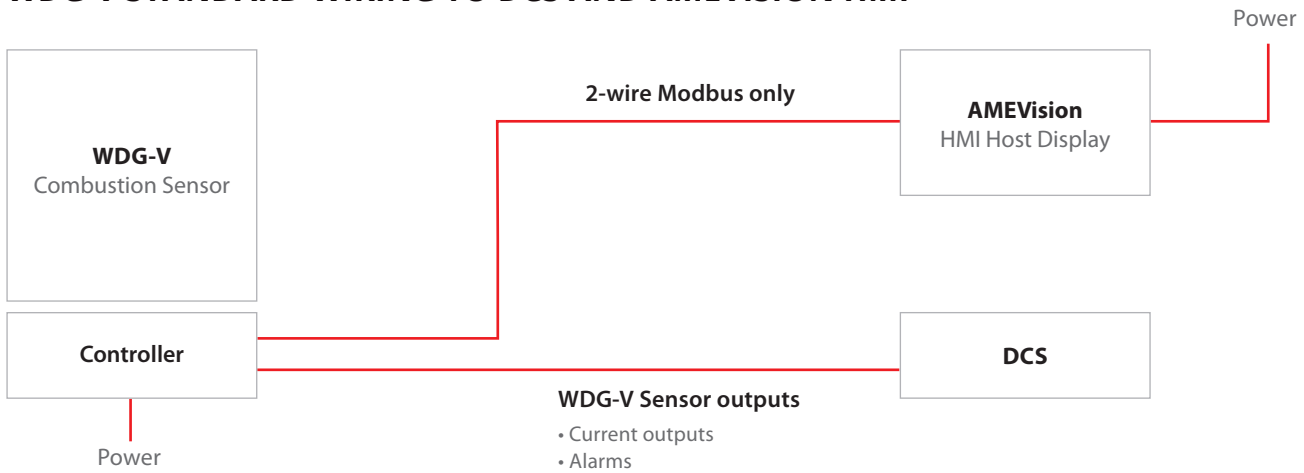
One major difference between the WDG-IV and the WDG-V is the location of where the 4-20 mA analog signal is generated. In the WDG-IV, it is generated remotely within the Series 2000 controller. For the WDG-V, the analog signal is generated at the WDG-V sensor head. Through this conversion kit, the analog signals can be pulled to the AMEvision Host Display without laying new wires to the DCS.

EXPLANATION OF RETROFIT

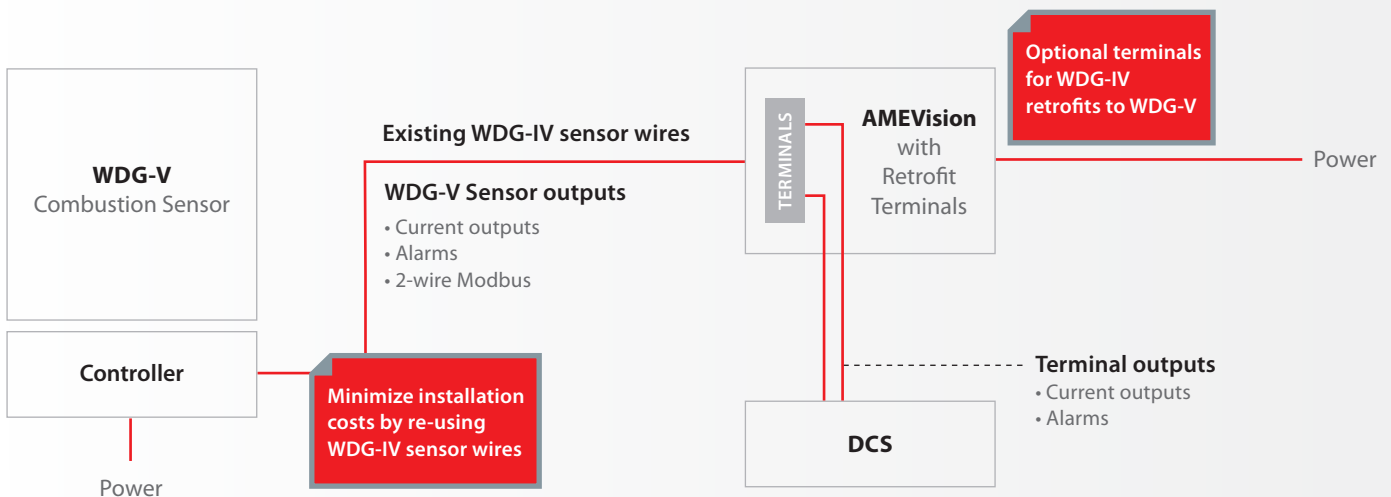
WDG-IV STANDARD WIRING TO SERIES 2000 CONTROLLER



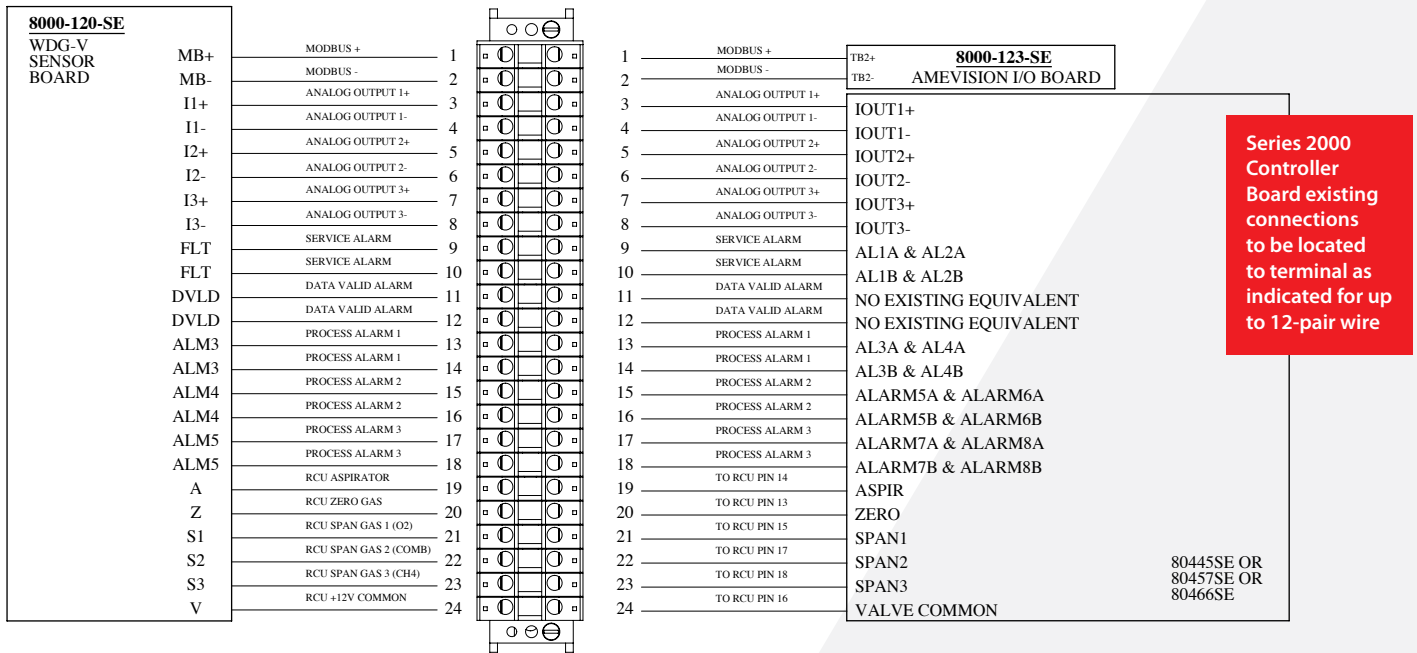
WDG-V STANDARD WIRING TO DCS AND AMEVISION HMI



WDG-V RETROFIT WIRING TO AMEVISION (using existing cables)



RETROFIT WIRING DIAGRAM



AMEVISION PERFORMANCE SPECIFICATIONS

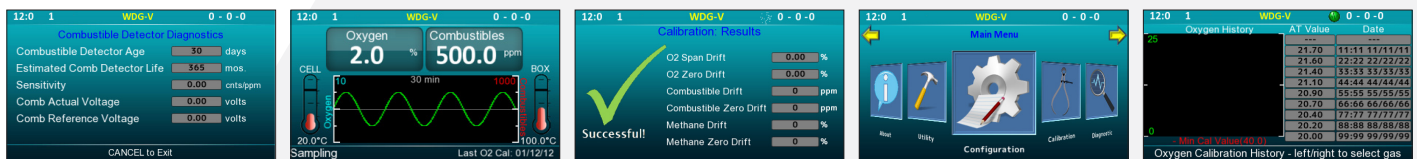
The AMEvision HMI Host Display enables the convenience of site calibration and communication with the analyzer via Modbus RTU, TCP/IP Fast Ethernet via RJ45, USB port and 4.2" VGA display.

The AMEvision HMI Host Display offers:

- **End of life prediction** of zirconium oxide cell and combustible detector with warning
- **Stability indicator** during calibration
- Individual controls of analog outputs and relays for **diagnostics**
- **Trend data** logging and access by USB
- Cell enclosure and electronics **temperature monitoring**
- Analog **output verification** of accuracy

Display	4.2" color 1/4W VGA graphical user interface password protected
Keypad	18-key membrane
Input	Two-wire Modbus RTU (19200 Baud Rate, Even Parity, 1 Stop Bit) from analyzer Wiring conversion kit capable of one analyzer per AMEvision Host Display HMI
Digital outputs	Two or four-wire Modbus RTU TCP/IP Ethernet with embedded web server (RJ45 connection) USB port for data collection or software update
Functionality	3050 configurator software
Environment	Ambient temperatures from -25 °C to +60 °C (-13 °F to +140 °F)
Power requirements	Nominal 115-230 VAC ±10%, 47-63 Hz, 75 VA max
System compliance	EMC directive 2004/108/EC low voltage directive 73/23/EEC Two hazardous area configurations: NEC/CEC Class 1 Division 2 and ATEX Zone 2
Dimensions (W x H x D)	228.8 x 304.8 x 152.4 mm (9 x 12 x 6 in.)
Weight	4.54kg (10 lbs.)
Enclosure	Class 1 Div 2, ATEX/IECEx Zone 2, IP65 (NEMA 4X)

Examples of AMEvision screens include:



Detector Diagnostics

Real-time Measurement

Successful Calibration

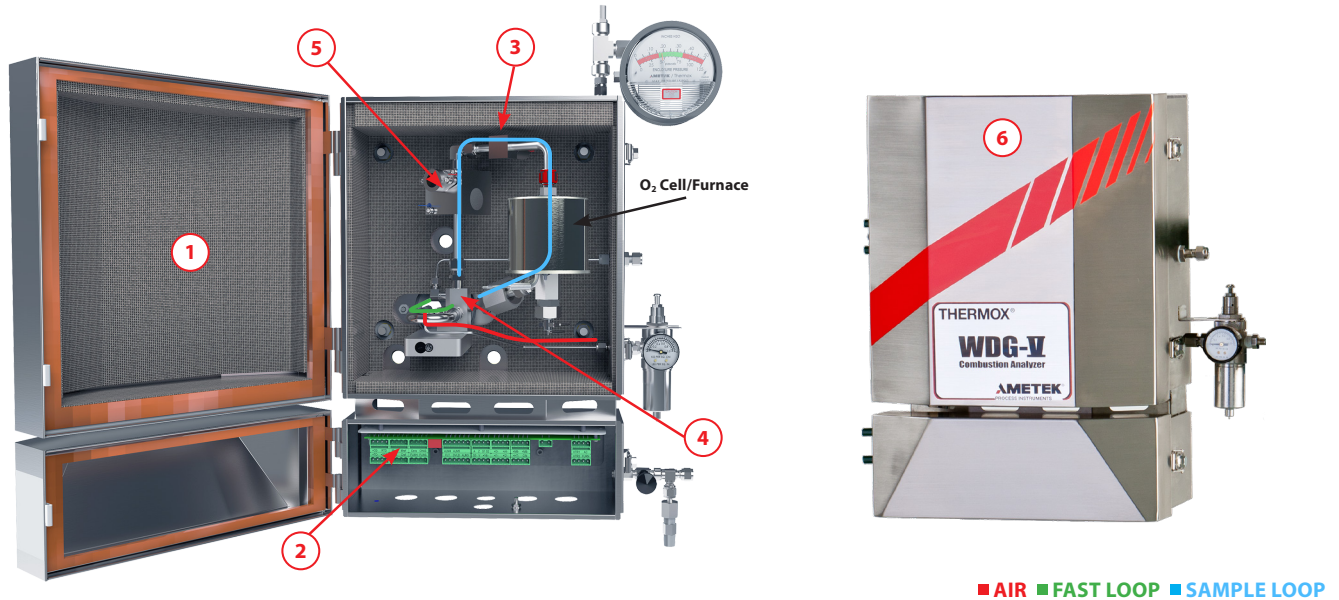
Easy Navigation

Calibration History

To find out more or request a quote visit our website

ametekpi.com

WDG-V SENSOR ENHANCEMENTS



The WDG-V series combustion analyzer is designed to provide the complete solution for combustion process and safety control. The WDG-V brings the reliability and serviceability of the WDG-IV along with key upgrades:

1 Sensor temperature stability

- Improved temperature control
- Improved for cold weather (-30°C, -22°F) – no blanket required
- Better stability over wider operating temperatures

2 Sensor electronics and terminal enclosure

- Designed to meet stringent SIL 2 safety rating
- Self-diagnostics/redundancy for SIL
- Smart predictive maintenance algorithms
- Improved ease of wiring with easy-access laser-printed, pluggable terminal blocks

3 Flow sensor accuracy

- Addition of flow sensor to ensure a representative sample
- Low-flow detection/alarm

4 Aspirator design

- Improved response time with flame arrestors
- Uses 50% less instrument air

5 Accurate combustibles/hydrocarbon monitoring

- Improved combustibles and hydrocarbon detector design
- Enhanced temperature stability for measurement

6 Overall size & mounting

- 30% smaller footprint
- Improved Remote Mount and Floor Mount versions

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