



SULFUR RECOVERY

## Model 888 Sulfur Recovery Tail Gas Analyzer

### Features & Benefits

- ▶ Auto flow control, an industry first!
- ▶ Low process temperature alarm
- ▶ Advanced thermal management
- ▶ No sample line
- ▶ Outdoor installation
- ▶ High reliability / low maintenance
- ▶ Safe process isolation during service
- ▶ Five year lamp life
- ▶ Smart maintenance predicting diagnostics
- ▶ Web enabled interface

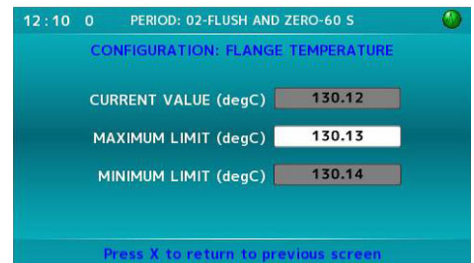
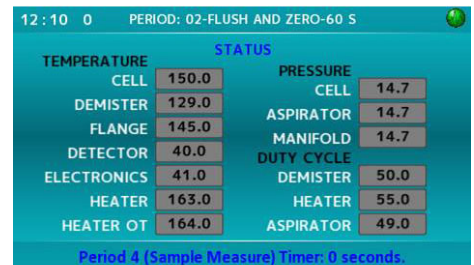
AMETEK Process Instruments has been the leader in tail gas analysis for over 40 years with 1,100 plus installed base of model 880NSL analyzers and more than 100 million hours of run time. The Model 888, the successor of the 880 NSL uses field-proven and highly reliable UV technology to accurately monitor the H<sub>2</sub>S and SO<sub>2</sub> concentrations in sulfur recovery tail gas. This compact, rugged analyzer mounts directly on the process pipe, eliminating the complexity and safety issues of fiber optic coupled photometers.

The use of three intelligent diagnostic models (observational, model-based and functional) identify, communicate, and react to situations that would otherwise lead to unscheduled downtime and transmit this information via a built in Ethernet or Modbus digital connection. The 888 is also equipped with anti-clogging blowback features that are automatically initiated if plugging is detected by the smart diagnostics.

The advanced thermal management reduces the electronics enclosures internal temperature extending electronics life by 75% and the 888 is rated for ambient temperatures of 60°C (140°F) without the need for external cooling.



Model 888, Class I Div 2



Color LCD Screens

# Model 888 Sulfur Recovery Tail Gas Analyzer

## Performance Specifications

**Methodology:** Non-dispersive ultraviolet

**Measurement Range:** SO<sub>2</sub> 0 to 1%;  
H<sub>2</sub>S 0 to 2% (standard output range)  
Air Demand, excess H<sub>2</sub>S or excess SO<sub>2</sub>  
(as control outputs)

**Accuracy:** H<sub>2</sub>S and SO<sub>2</sub>: ±1% of full scale

**Reproducibility:** ±1% of full scale

**Speed of Response:** 90% in less than 15 seconds, typical

**Calibration:** Automatic multi-point photo span validation

**Sample Flow:** 2 LPM typical

**Outputs (Analog and Digital)**

Four (4) 4-to-20 mA, self-powered, linear, 1000 ohms load proportional to H<sub>2</sub>S, SO<sub>2</sub>, and either Excess H<sub>2</sub>S or Ratio

Four (4) programmable relay contacts (30 VAC, 60 VDC, 50 VA, resistive load)

RS485 Serial Communication Port, two-wire

## Inputs

One (1) isolated digital input, contact closure, 5 VDC @ 2.5 mA

**Communication:** RS485 serial port, Ethernet, Modbus. Remote dial-in capabilities available with AMETEK web enabled software

**Ambient Shaded Temperature:** -20°C to 60°C (-4°F to 140°F)

**Process Sample Pressure:** Not critical

**Customer-Supplied Items:** 2 in.-150 lbs. or DIN equivalent RF stainless steel flange connection

**Ingress Protection:** IP65 (NEMA 4X)

**Enclosure Material:** 316 stainless steel

**Physical Dimensions:** (H x W x D): 874 x 1092 x 304.9 mm (34.4 x 43 x 12 inch)

**Approximate Weight:** 110 kg (242.5 lbs.)

## Utilities

**Electrical:** 120/240 VAC 50/60 Hz 500W, single phase

**Instrument Air:** 379 to 690 kPa (55 to 100 psig)

**Steam Pressure:**

515 to 690 kPa (75 to 100 psig) for optional jacketed ball valve and optional blow back for ammonia salts

## Approvals and Certifications (Pending)

UL/CSA General Safety Requirements

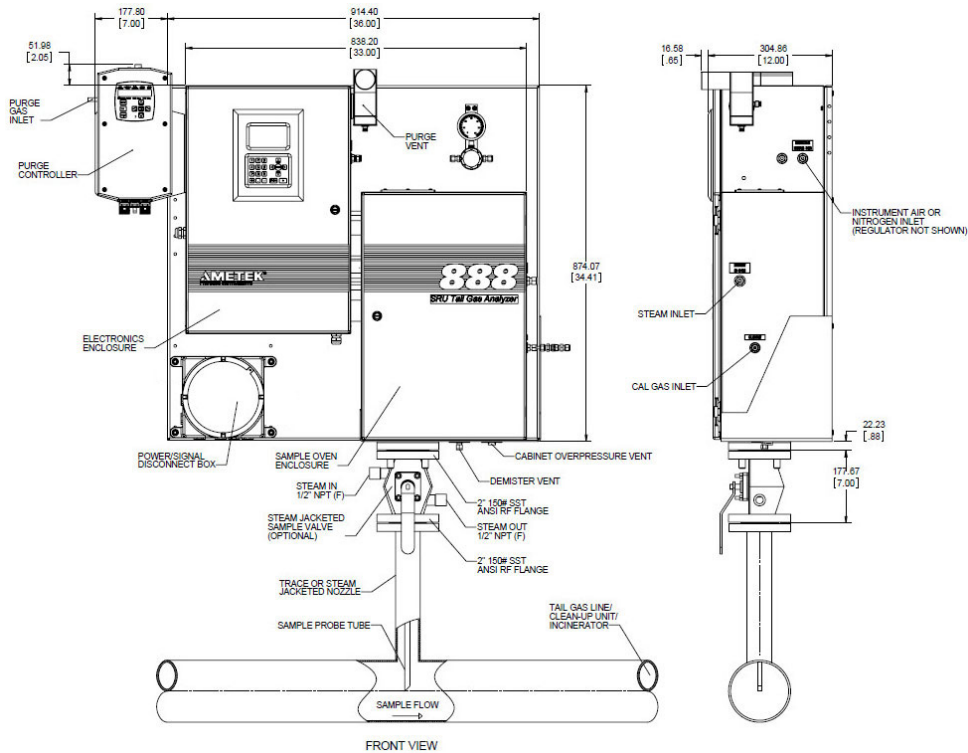
UL/CSA Class I, Division 2, Groups A, B, C, D

ATEX II 2 G, Ex px IIC T3 Gb T

Complies with all relevant European directives

JIS (Japan)

GOST (Russia)



Model 888, ATEX Zone 1

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One of a family of innovative process analyzer solutions from AMETEK Process Instruments.  
Specifications subject to change without notice.

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