



## Flame Scanner

### INNOVATIVE TECHNOLOGY. DEPENDABLE PERFORMANCE.

The iScan2 flame scanner was developed based on decades of proven experience to help customers operate their combustion equipment safely and reliably while minimizing maintenance costs. The scanner's innovative digital signal processing (DSP) technology can discriminate the target burner flame from background flames or hot refractory surfaces, ensuring reliable operation. The iScan2 flame scanner easily replaces existing scanners and interfaces with existing control systems.

### AT A GLANCE.

- Simultaneous UV and IR radiation spectra detection capability
- Self-Checking and Fail Safe
- **CERTIFIED TO UL 372/CSA C22.2 No. 199/EN 298**
- Single-burner (SB) and Multi-burner (MB) Models. SB is pre-set and requires no configuration, MB is configurable for complex applications
- Relay contacts can be configured to provide either independent Flame/Fault indication outputs or redundant outputs to meet SIL3-level applications
- Four inputs for remote file selection for use with different fuels or operating conditions
- Pre-set over-temperature monitoring with warnings
- Fiber optic extension version expands number of applications
- iScan2 is suitable for
- Simplified initial setup with DSFCOMM learn flame ON/OFF (MB only)



## Features

- Compact, light-weight "all-in-one" design
- Proven with gas, light oils, heavy oils, biomass and coal
- Senses and amplifies small flame signals (low noise floor + superior gain)
- PC-based RS-485 remote communications interface





Chentronics is an ISO 9001:2015 Certified, global leader with 40 years of innovative ignition and flame assurance solutions for natural gas, light oil, diesel and residual fuel.

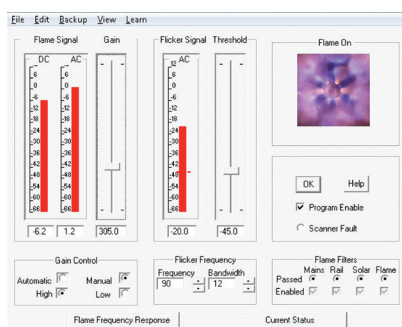


## iScan®2 FLAME SCANNER SPECIFICATIONS.

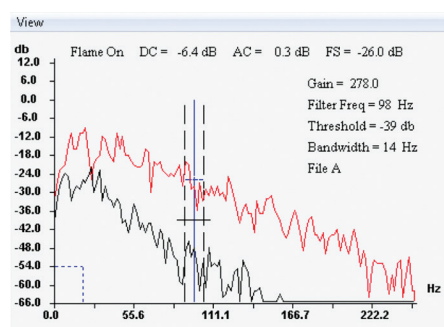


Flame Sensor	Combination UV/IR Solid State Sensor
Power	24 VDC nominal, 3.36 W (140 mA), 20-28 VDC operational
Electrical Connection	NEMA 4x, IP66 has quick disconnect cable at selectable lengths from 10-250 ft. (3.1-76.2 m); Hazardous area model has factory-installed, 10 ft. (3 m) leads
Mounting	1 in. (2.54 cm) NPT(F) heat insulated and electrically isolated mounting flange
Dimensions / Weight	3.25 in. diameter (8.26 cm), 12.1 in. length (30.7 cm) / 3 lb. (1.36 kg)
Operating Temperature	Ambient -22 to 158°F (-30 to 70°C)
Relay Output	One N.O. voltage-free (dry) flame relay contact. One N.O. voltage-free (dry) configurable flame or fault relay contact (non-hazardous area model only). Relay ratings: 1.0A @ 24VDC, 0.5A @ 125VAC
Analog Output	One 4-20 mA output for flame intensity. One 4-20 mA configurable output for internal scanner temperature or gain level (non-hazardous area model only). Output(s) are current-sourced, 750 ohm maximum.
Communications	RS-485 via DSFComm, up to 32 scanners per loop — up to 127 scanners using repeaters
Relative Humidity	100%, condensing
Enclosure	NEMA 4x, IP66 for non-hazardous area model. NEMA 4X Class 1, Division 1: Groups B, C, D (IEC Ex) for hazardous area model.
Approvals	FM, cULus, IEC Ex, SIL3, CE, INMETRO, cCSAus, and ABS. iScan2 flame scanners are tested and verified by Nationally Recognized Test Labs (NRTLs)

\* Specifications subject to change at any time.



Setup/Control Panel



Target Flame Frequencies (Red) vs. Background Flame Frequencies (Black)



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