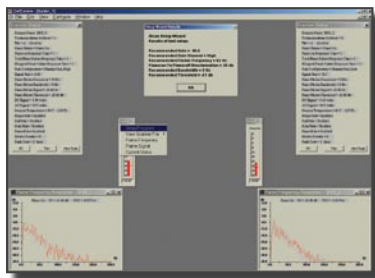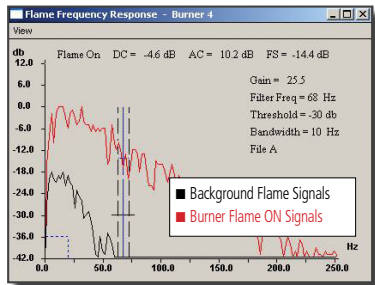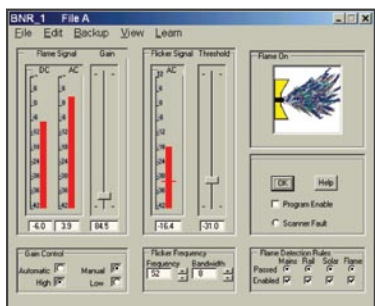# COEN™
COEN COMPANY, INC.

iscan2™

FLAME SIGNALS, SETTINGS & OVERVIEW

BACKGROUND FLAME AND FLAME ON SIGNALS

SETUP/CONTROL PANEL

iScan2™ – Revolutionary Flame Scanning Technology

Coen Company introduces *iScan2*, the only commercially available flame scanner able to differentiate real flame signals from simulated flame signals to ensure safe operation in utility, industrial and other combustion-related applications. Based on decades of Coen's proven flame scanner technology, *iScan2* helps users operate safely and reliably while minimizing maintenance costs. *iScan2* easily retrofits existing scanners and interfaces with other control systems and displays.

SUPERIOR SAFETY FEATURES

iScan2 is designed with an internal temperature-monitoring capability, so operators can configure pre-alarm conditions to prevent premature scanner failure due to excessive heat or ambient conditions.

iScan2's reliable solid-state sensor and electronic self-checking capability eliminate the need for UV tubes that are known to fail in unsafe conditions.

Relay contacts can be configured to meet SIL-level applications and provide independent outputs, resulting in a safer flame scanner system.

REMOTE COMMUNICATIONS AND DIAGNOSTICS

iScan2 has the fastest communications available on the market at 128,800 kb/s. This increased communication speed enables operators to use instantaneous flame signal responses as opposed to time-delayed flame signal responses.

iScan2's software tuning functions allow the flame data to be recorded, saved and analyzed. This capability is ideal for troubleshooting improper combustion or ignition problems helping avoid nuisance shutdowns or incidents.

ADVANCED FLAME-SCANNING FEATURES

- Enhanced flame detection and discrimination
- Double the digital inputs and relay outputs
- Remote communications and diagnostics
- Higher temperature capabilities

iScan2™ Specifications

Spectral Response	Dual UV/IR with UV peak at 350nm and IR peak at 700nm
Power	24 VDC nominal, 2.9 VA (120 mA), 20-28 VDC operational.
Electrical Connection	NEMA4x/IP66 has military quick disconnect cable at selectable lengths; C1D1/ATEX model has factory installed, 10 foot (3 m) leads. Both versions are 14 conductor, shielded.
Mechanical Connection	1" NPT(F) via heat insulating mounting flange; FOX version adapted for fiber-optic assembly.
Dimensions	2.5" (6.35cm) diameter by 10" (25.4cm) length; 12.1" (30.7cm) length including mounting adapter.
Inputs	Four digital inputs for remote file selection (File A, B, and C).
Relay Output	One N.O. voltage free (dry) flame relay contact and one N.O. voltage free (dry) fault relay contact; 0.5A @ 125Vac and 1A @ 24Vdc.
Analog Output	Two 4-20 mA outputs (Current sourced, 750 Ohm max). One for flame intensity and one for raw signal output or internal scanner temperature.
Communications	RS485 via DSFComm, 128 kB, 127 scanners per loop, up to 5,000 ft (1524 m) and HART communications over 4-20mA wiring.
Response Time	1-4 seconds adjustable
Relative Humidity	100%, condensing
Housing & Weight	NEMA 4, 4x, IP66 (3.41 lb, 1.54 kg), NEMA 4x and Class 1, Division 1 & 2, Groups B, C & D, ATEX Exd IIC T5 (3.8 lb, 1.72 kg)
Approvals	FM, UL, CSA, CB, CE, ATEX, GOST, CCOE, APAVE and TÜV

With thousands of units installed worldwide, Coen's scanner technology is proven to be extremely reliable and cost-effective for oil, gas, or coal flames. Improve the performance of your system...

Contact Coen today and put *iScan2* to work for you.

COEN™
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