



PRODUCT DATA SHEET: MODEL WATCHDOG III – P222 and S256B



Product Description:

The IRIS Watchdog III **UV Flare Stack Pilot Monitoring system** consists of the Model P222 Signal Processor and the Model S256B Viewing Head.

The IRIS Watchdog electro-optically monitors pilot and flare stack activity using an ultraviolet sensor. It provides continuous burner surveillance indicating the presence or absence of a flame at the flame tip. The model S256B viewing head is ground mounted up to 1000 feet from the flare stack tip. The rugged, light weight, all weather aluminum mounting yoke is designed for easy and accurate adjustment of the viewing head. Both vertical and horizontal aiming can be performed, and securely locked once achieved. Signal strength can be monitored and adjusted at the viewing head location by using the display on the rear of the viewing head. The electronics are designed with no moving parts to ensure continuous and maintenance-free operation.

The model S256B viewing head is ground mounted up to 1000 feet from the flare stack tip. The rugged, light weight, all weather aluminum mounting yoke is designed for easy and accurate adjustment of the viewing head.

The P222 can be powered from 85 to 264 VAC line voltage, or from a DC supply of 22 to 26VDC. Two independent relays are provided, one giving an early response (adjustable between one and sixty seconds) to a "flame loss" and the other giving a time-delayed response, (adjustable between the early response time and 60 minutes), for a "flame-out" alarm.

SPECIFICATIONS

ELECTRICAL	AC Powered	85 - 264VAC, 47 - 440Hz, 0.3A Max (with viewing head)
	DC Powered	22 - 26VDC, 300 mA (with viewing head)
	DC Power for backup	22 - 24VDC, 300 mA (with viewing head)
ENVIRONMENTAL	Ambient Temperature: P222	0° C to 60° C (32° F to 140° F)
	Ambient Temperature: S256B	-40° C to 80° C (-40° F to 176° F)
	Viewing Head Housing	NEMA type 4X
CABLE	Signal Processor to Viewing Head	4 conductor, #16 AWG or #18 AWG, one wire shielded with braided shield for flame signal. IRIS type C328 or C330 cable recommended
OUTPUTS	Relay R1 (Early indication)	1 set Form C contacts: Contact Rating: 5A at 30VDC or 250VAC
	Relay R2 (Delayed Indication)	2 sets Form C contacts: Contact Rating: 5A at 30VDC or 250VAC
	Analog Flame Signal	0 to 19.8 mA output for remote meters, or 4 to 19.8 mA output for DCS, etc. 360 Ohm Max resistance
	Power to Viewing Head	+26 VDC, Self Resetting fused, 0.25A (powered from processor)
INPUTS	Manual Clear	Connect to GND via a remote switch to clear
	Channel Select	Connect 24VDC to select channel B
SERIAL COMMUNICATION	RS-422/485 (Differential)	4800 ,9600, 19200 or 38400 baud (User selected)
VIEWING HEAD	Distance from Pilot	Up to 1000 ft. Line of Sight
	Field of view	40 ft. diameter target at 1000 ft.
WEIGHT	Shipping Weight	12 lbs (5.5 Kg.)
DIMENSIONS	Single unit Carton	24 X 12 X 10 inches