SPECIFICATIONS

ELECTRICAL - 24VDC +/- 10%, 300mA with 1 S550BE VH.
ENVIRONMENTAL - Viewing Heads NEMA TYPE 4
Ambient Temperature - S550BE, S552BE, S556BE VH. -40° F to 122° F (-40°C to +50°C)
Case Temperature - S550BE, S552BE, S556BE VH. -40° F to 140° F (-40°C to +60°C)
- FASA Fiber Optics VH. -65° F to 572° F (-54°C to +300°C)

OPTICAL - IR 1.0°
- UV 3.0°

CABLE (Between Viewing Head and Signal Processor)
- 4 conductor, #16AWG or #18AWG.
one wire shielded with braided shield for flame signal.
Part Number C328 or C330

IR FLICKER
IR HIGH PASS FILTERS

S511 & S512		S550BE & S552BE	
LL	36 Hz	1	16 Hz
L	71 Hz	2	24 Hz
M	105 Hz	3	33 Hz
H	186 Hz	4	52 Hz
		5	75 Hz
		6	100 Hz
		7	155 Hz
		8	215 Hz

IR GAIN

IR Gain	0 - 699

UV GAIN

UV Gain	0 - 99

SPECTRAL RESPONSE

UV	190-215nm

Model #	Type	Gas (Hydrogen, Propane, NG)	Gas Low NOx Burners	Oil (Heavy Oil - air & steam atom)	Low NOx Pulverized Coal
S550BE	UV/Ge	Disc Excellent	Disc Good	Disc Excellent	Disc Excellent Sig Very Good
S552BE	Ge	Disc good Sig Good	Disc None Sig Fair	Disc Very Good Sig Good	Disc Good Sig Good
S556BE	UV	Disc Excellent Sig Very Good	Disc Good Sig Good	Disc Excellent Sig Poor	Disc Excellent Sig Very Poor

For more information, please contact:

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INDUSTRIAL FLAME MONITORING SYSTEM
S55xBE(-EX) SERIES VIEWING HEADS

WORLD LEADER IN FLAME MONITORING

S550BE GENERAL DESCRIPTION

Model S550BE is a state-of-the-art flame monitoring viewing head utilizing two types of detectors: an IR (infrared) solid state sensor and a UV (ultraviolet) photo sensor.

The S550BE works with the latest version of the P520, P522, P531 and P532 signal processors. Like other viewing heads in the S5xx family of viewing heads, the S550BE produces output pulse rates proportional to the flame signal strength; the pulse rates are displayed at the front panel of the signal processors. Unlike the other members of the S5xx family of viewing heads, certain parameters in the S550BE viewing head can be selected or adjusted remotely from the front panel of the P520, P522 and P532 signal processors. These parameters are:

a) UV gain 0-99
b) IR gain 0-699
c) Filter Selection 1-8

Once adjusted, the new parameters are stored in EEPROM in the signal processor. If power is removed from the signal processor (which powers the viewing head) and reapplied, the signal processor then automatically re-sends the stored parameters out to the S550BE viewing head. In addition, at the front panel of the signal processor the operator may also select "CAL", a semiautomatic mode which will help to speed up the S550BE setup. Thus, the S550BE is a dual-sensor viewing head where the gain and filter selections are adjusted and stored remotely by the P520, P522, P531 and P532 signal processors.

S552BE GENERAL DESCRIPTION

The S552BE is for IR sensing only. It is basically an S550BE without UV capability. The P520, P522, P531 or P532 will be aware of which viewing head of the S55xB family is connected to it so that only those adjustments which are appropriate to the S552BE will be made available to the operator. These adjustments apply to the S552BE:

a) Filter Selection 1-8
b) IR gain 0-699

When it comes to features like "CAL", the operator is given only those choices which are appropriate. For example, the operator does not have to choose between calibrating with the UV sensor or the IR sensor; in "CAL" but is only offered the choice of calibrating with the IR sensor.

S556BE GENERAL DESCRIPTION

The S556BE is for UV sensing only. It is basically an S550BE without IR capability. The P52x or P53x will be aware of which viewing head of the S55xBE family is connected to it so that only the adjustment which is appropriate to the S556BE will be made available to the operator:

a) UV gain 0-99

When it comes to features like "CAL", the operator is only given those choices which are appropriate. For example, the operator does not have to choose between calibrating with the UV sensor or the IR sensor; in "CAL" but is only offered the choice of calibrating with the UV sensor or not.

COMPARISON WITH OTHER MODEL S5xx SERIES VIEWING HEADS

The S55xBE uses a Germanium sensor for IR detection, like the S511 and uses a UV TRON® Photo Sensor for UV detection, like the S506, but both sensors are in the same housing in the S55xBE. The pulses from the UV and IR sensors are summed internally into a single pulse stream out to the signal processor.

A dual-LED digital display is used to indicate the first two digits of the signal processor, which indicates the pulse rate out of the S550BE. It is visible at the rear of the viewing head housing. The UV sensor emits green digits and the IR sensor emits red digits. With a count rate of 1200 displayed at the signal processor the LED will display 12. This is very useful for aiming and sighting the viewing head. One can readily distinguish the differences by reading the LED and use this indicator to adjust the sighting to obtain a maximum pulse rate at the LED, and therefore a maximum reading at the signal processor.

Another difference from previous models is that the gain for each sensor and the selection of the filter for IR may be set remotely through the front panel of the P52x/P53x signal processors.

Another difference from the earlier S5xx family of viewing heads and the S55xBE family is that the earlier viewing head family had only 4 high pass filters to choose from; the S55xBE has 8 (See table on back).

- Dual UV/IR Viewing Head in single housing
- Auto/Manual Calibration
- Setting stored in EEPROM
- UV Spectral response 190 - 210nm-
- IR Flicker - 8 High pass filters, 16 - 215 Hz
- Select IR, UV or both simultaneously
- NEMA 4X housing, Quick disconnect plug
- SELF-CHECK once a second, viewing head and signal processor

S550BE Combination UV/IR Viewing head Attributes

- FM, CSA & NRTL/C Approved
- LED indicates flame signal strength for optimal sighting and UV/IR indication
- S55xBE-EX model has European ATEX approval (II 2G Ex d IIC T6 for zone 1 & 2)
- Compatible with all P52x and P53x series signal processor
- FlameTools compatible

S55xBE-EX Model

S552BE IR Only Viewing head
(picture is S552B) Adjustable IR Gain & Filter Digital Signal Strength Display

S556BE UV Only Viewing head
(picture is S556B) Adjustable UV Gain Digital Signal Strength Display