

SPECIFICATIONS FOR SERIES 700 AND 800 VIEWING HEADS

**MODELS S702, S702-PF, S702-HF, S702-HF-PF, S706, S706-PF,
AND MODELS S802, S802-HF, AND S806**

ELECTRICAL

Input Power – 22VDC to 26VDC, 150 mA MAX from Model 700 or Model 800 Signal Processor

ENVIRONMENTAL Sealing

– Viewing Head NEMA TYPE 4X with tightened connector and UV cable protection

Ambient Temperature

– -40°C to 85°C (-40°F to 185°F)

IR DETECTOR SPEC

**(S702, S702-PF, S702-HF,
S702-HF-PF, S802, S802-PF)**

– Photodiode with spectral response 1110 to 1660nm (1/2 intensity points)

High Pass Filter Pickup

– 33 Hz standard, 155 Hz High Freq. option (-HF)

IR OPTICAL Angle of View

– 1 degree (1.45" dia. at 6 ft.)

UV DETECTOR SPEC

(S706 & S706-PF, S806)

– UVtron with spectral response 185 to 260nm

UV OPTICAL View Angle

– 5 degrees (1 inch per foot)

CABLE & CONNECTOR

(Signal Proc. to V.H.)

– (Standard) Hirshmann connector with LEDs, C-330 cable
– With -PF use #22AWG, braided shield, 95% coverage

SPECIFICATIONS FOR MODEL 700AC & MODEL 700DC SIGNAL PROCESSORS

ELECTRICAL – MODEL 700AC

Primary Input Power

– 85-265VAC, 50-60 HZ, 0.07A MAX, w/either V.H., fused

Battery Backup Voltage

– 22VDC to 26VDC, 0.2A DC MAX. w/either V.H., fused

ELECTRICAL – MODEL 700DC

Primary Input Power

– 22VDC to 26VDC, 250 mA MAX, w/either V.H., fused

Battery Backup Voltage

– 22VDC to Input Voltage -.5VDC, w/either V.H., fused,

OUTPUTS

Flame Relay

– 2 form C contacts

Self-Checking Relay

– 1 form C contact

Relay Contact Ratings

– 5A at 125 VAC, 277 VAC & 30 VDC; 1/8 HP 125 & 250 VAC

Analog Flame Signal

– isolated 0 to 20 mA or 4 to 20 mA output for remote meters or DCS, 360 ohms maximum resistance

ENVIRONMENTAL Amb Temp

– 0°C to 50°C (32°F to 122°F)

SPECIFICATIONS FOR MODEL 800 SIGNAL PROCESSOR

ELECTRICAL Primary Power

– 85-265VAC, 50-60 HZ, 0.10A MAX, w/either V.H., fused

OUTPUTS

Flame Relay

– 2 form A contacts

Flame Relay Contacts

– 5A at 125 VAC, 250 VAC, and 30 VDC

Self-Checking Relay

– 1 form A contact

Self-Check Relay Contacts

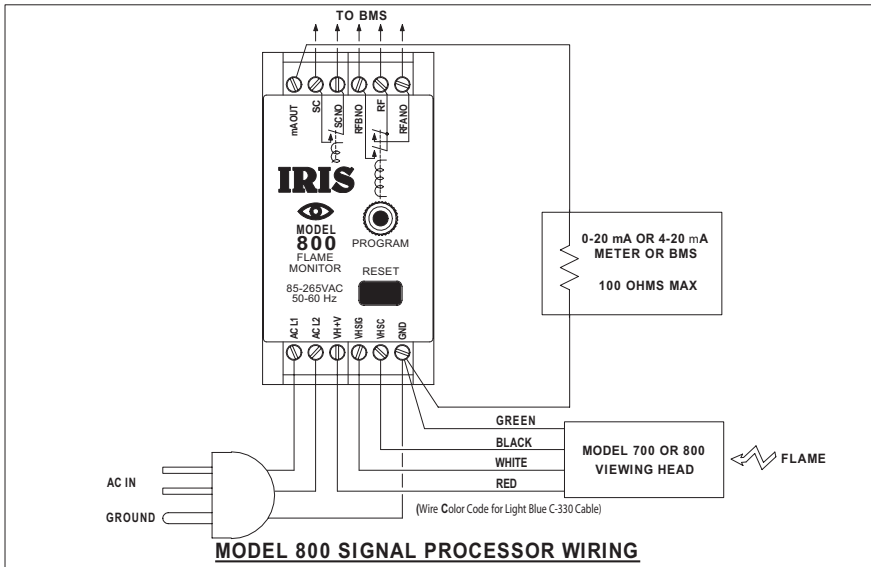
– 0.4A: 110 VDC, 125 VAC; 2A: 30VDC

Analog Flame Signal

– 0 to 20 mA or 4 to 20 mA output for remote meters or DCS, non-isolated, 100 ohms maximum resistance

ENVIRONMENTAL Amb Temp

– 0°C to 60°C (32°F to 140°F)



WIRING NOTES

NOTE: FOR CLASS 1 DIV 2 RATING, CABLING IN HAZARDOUS LOCATIONS MUST COMPLY WITH NEC ARTICLE 500 REQUIREMENTS.

In particular, in the US, cables should have UL's ITC rating; in Canada, cables should have CSA's ITC rating. The C-330 cable supplied has both ratings. It is labeled: "IRIS SYSTEMS INC. C-330 E193849 (UL) TYPE ITC 4/C 18 AWG 90C 300V OR c(UL) CIC 90C 600V FT4 SUNLIGHT RESISTANT".

Or the customer may also supply his own cable; IRIS will supply the mating viewing head connector along with the LED indicator assembly which goes inside the connector. The use of shielded cable is recommended, either an overall shield or a cable with a shield for the signal line. The shield should be connected to GND at the processor end and to the ground wire at the viewing head end. The cable diameter should not exceed .307" so it will go through the hex bushing in the Hirshmann connector.

OPERATIONAL NOTES

Upon power up the Model 700 Signal processor will display "rX" or "uX" where "r" for the IR viewing heads, "u" for the UV viewing heads, and "X" is for the viewing head gain of 1 to 9. A gain of 5 is the default gain; a gain of 1 is half the default gain and a gain of 9 is twice the default gain. If the processor displays "U5" on power up, either no head is plugged in or an older unintelligent head is plugged in. If no viewing head is plugged in, the Model 700 signal processor will not respond to presses of the buttons. With an older viewing head the signal processor will "wake up" when it starts receiving viewing head pulses.

GREEN AND ORANGE LED INDICATIONS

The connector at the 700/800 viewing heads contains indicator LEDs.

The green LED displays the pulses out of the viewing head and an orange LED shows that the self-checking signal from the signal processor is reaching the viewing head. If power is on at the signal processor, the orange LED should flash at one pulse per second, even if the viewing head is not plugged in. With no flame signal present, the green LED will flash one pulse per second in step with the self-checking signal. When a flame is present, the green LED will blink at a rate proportional to the flame signal, except that the pulses are interrupted once per second when the self-check pulse arrives at the viewing head. The pulse rate of the green LED flashes can be used for aiming the viewing head.

CONTACT INFORMATION

Sales and applications support:

IRIS SYSTEMS INC.
#7583 Vantage Place
Delta, B.C., Canada V4G 1A5
Ph. 800-667-IRIS, FAX 604-581-9790
email: flame@iris-systems.com

Manufacturing :

IRIS SYSTEMS INC. (JB Systems, Inc.)
4944 113th Avenue North
Clearwater, FL 33760
Ph. 727-545-3900, FAX 727-547-9589
email: jbsystems@iris-systems.com