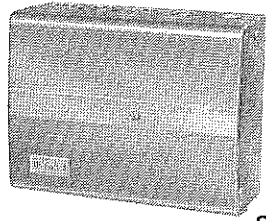


Honeywell

S684D,F; S984A,C-F,J,K,M,P STEP CONTROLLERS



S984

THE S684 AND S984 STEP CONTROLLERS PROVIDE CAM-OPERATED SEQUENCING CONTROL OF UP TO 10 STAGES OF HEATING AND COOLING EQUIPMENT.

- | | | | |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> S684D | <input type="checkbox"/> S984A | <input type="checkbox"/> S984E | <input type="checkbox"/> S984K |
| <input type="checkbox"/> S684F | <input type="checkbox"/> S984C | <input type="checkbox"/> S984F | <input type="checkbox"/> S984M |
| | <input type="checkbox"/> S984D | <input type="checkbox"/> S984J | <input type="checkbox"/> S984P |

• S684 is a floating control used with a series 60 controller. It includes a feedback potentiometer for use in electronic (series 70) systems.

- S984 has an integral proportioning (series 90) motor and is used with a series 90 controller.
- S984K and M are used in cold deck sequencing applications; the first 80 degrees of rotation are used to operate a damper motor.
- All models, except S984P, automatically return to start position and reenergize load stages one at a time after power failure. (S984K,M return to midpoint—outside air damper may remain full open.)
- S984P resumes operation at same point in sequence when power is restored.
- Make point of each switch adjustable to any point in 160-degree motor rotation.
- Switch differential adjustable from 5 to 160 degrees of motor rotation.
- Leadwires provided for connection of delay timer to slow stage ON points.
- Terminals provided for connection of ON-OFF switch to run step controller to start position.
- Available with motor timings of 1-1/2, 5, 8, 13-1/2, or 22 minutes.
- Integral multitap transformer for use with 120, 208, or 240 Vac power supply.
- Allows for separation of voltage between switching stages and control operation.
- Available with 3 to 10 switches.
- Available with auxiliary potentiometer for control of additional series 90 motor or another sequencer.
- Available with or without cover.

SPECIFICATIONS

MODELS:

S684 Step Controller—used with spdt controller for floating control or with electronic balance relay for proportional control.
S984 Step Controller—used with series 90 controller to provide proportioning control.

Model	Switches	Enclosure	Timing ^e (Min.)
S684D	5	Yes	1-1/2, 5, 13-1/2 ^c
S684F	10	Yes	1-1/2, 5, 13-1/2 ^c
S684A	5	No	1-1/2, 5, 13-1/2 ^c
S684C	10	No	1-1/2, 5, 8
S684D	5	Yes	1-1/2, 5, 8, 13-1/2 ^c
S684E	7	Yes	1-1/2
S684F	10	Yes	1-1/2, 5, 13-1/2 ^c
S684J ^a	10	Yes	1-1/2, 5, 13-1/2 ^c
S684K ^b	3	Yes	22
S684M ^b	4	Yes	22
S684P ^d	6	Yes	13-1/2 ^c , 22 ^c

^a With auxiliary potentiometer.

^b S984K and M have special auxiliary potentiometers for control of outside air damper and are for use in cold deck sequencing applications. Recycle to midstroke after power failure.

^c Models with 13-1/2 minute timing have a 150 F [66 C] maximum ambient rating for use in electric duct heater applications where high ambient temperature are encountered. Longer timing provides stable operation with narrow throttling range.

^d S984P has a special auxiliary potentiometer for control of an outside air damper and cooling stages. Without recycle relay.

^e Timing at 60 Hz (17 percent slower at 50 Hz).

DIMENSIONS: See Fig. 1.

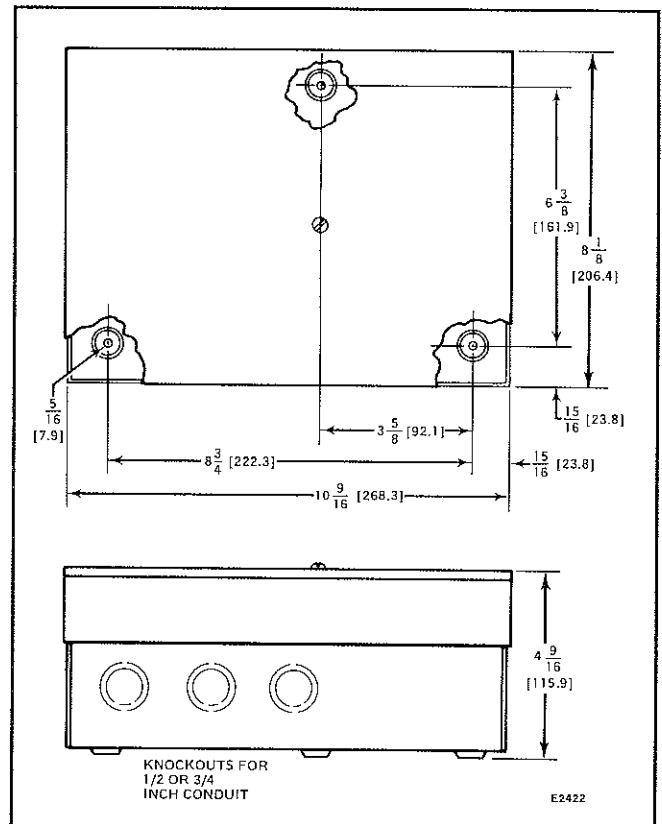


Fig. 1— DIMENSIONS, IN IN. [mm SHOWN IN BRACKETS], OF S684, S984.

UNDERWRITERS LABORATORIES INC. LISTED (S684D,F;
S694D,E,F,J,K,M,P): File No. E4436, Guide No. XAPX.

UNDERWRITERS LABORATORIES INC. COMPONENT RECOG-
NIZED (S684A,C): File No. E4436, Guide No. XAPX2.

MOUNTING: Mounts in any position.

REPLACEMENT MOTORS:

190094—1-1/2 min.
190093—5 min.
190092—8 min.
190091—13-1/2 min.
190090—22 min.
S684: 17 W max.
S694: 23 W max.

Power Supply Voltage (multitap transformer)—120, 208, or 240
V, 60 Hz; 220 V, 50 Hz.

Control Circuit—24 Vac.

ELECTRICAL RATINGS:

Power Consumption—

Switch Rating (per switch)—pilot duty: 570 VA sealed, 5700 VA
inrush.

Maximum total load connected to all NO and NC contacts com-
bined—1800 VA and 10,800 VA inrush; maximum total load for
all NC contacts cannot exceed 800 VA at 120 V and 1000 VA
at 208 V, 220 V and 240 V.

AMBIENT TEMPERATURE RATING: Minus 40 to plus 125 F
[minus 40 to plus 52 C]. (Certain models have 150 F [66 C] maxi-
mum ambient rating. See MODELS table at left.)

LOAD SWITCHES: Spdt, Micro Switch snap-acting switches.

CAMSHAFT ROTATION: 160 angular degrees.

WEIGHT: 10 to 15 lb. [4.5 to 6.8 kg], depending on model.