

# STACK PACK SL22 SERIES VENT/FLUE DAMPER

For Gas Fired Boilers, Furnaces and Water Heaters Requiring an Extra Margin of Safety Such as Systems Using Single Gas Valves.

An automatic, motorized stack damper that increases the efficiency of heating systems by reducing standby losses from the heating apparatus and the conditioned air space. A.G.A. certified to ANSI Z21 as a vent damper and Z21.10.1 and Z21.10.3 as a flue damper.



**SL 22 SERIES**



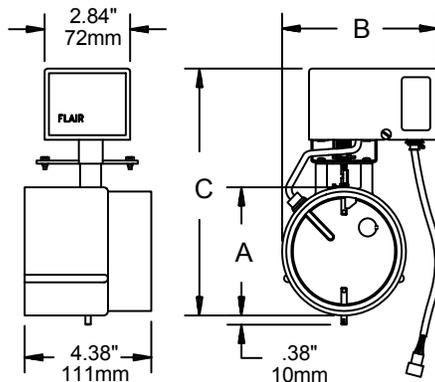
Covered by patent nos. 4,039,123 and 4,404,613

## BENEFITS & SPECIAL FEATURES

- Lightweight aluminum housing. Support straps not needed.
- Precision casting prevents interference between vane and flue pipe.
- Lower friction, universal round rod design for greater durability.
- Easy to service: replaceable actuator.
- Vent thermostat to ensure gas valve closure.
- 24 VAC, adaptable to millivolt and 120 VAC systems.
- Patented dual interlock positively prevents burner operation when vane is in other than fully open position.
- Safe, low voltage control circuit, compatible with non-redundant gas valves with standing pilot.
- Damper will always fail in the safe, open position on loss of power and will allow continued normal burner operation.
- Will start to close only when the burner is proven off.
- Heavy duty, low temperature motor with integral clutch and lost motion feature to ensure longer life.
- Direct driven end switch for positive burner control.
- Attractive high temperature plastic cover.
- Quick connect receptacle for easy, safe and reliable attachment to optional FLAIR harness.
- 725° Fahrenheit flue damper rating.
- Flow direction and two vane position indicators.
- Pre-drilled for included mounting screws.

## DIMENSIONS

VENT SIZE	A		B		C	
	IN	MM	IN	MM	IN	MM
8"	8.29"	211mm	8.20"	208mm	13.25"	337mm
9"	9.29"	236mm	8.70"	221mm	14.25"	362mm
10"	10.29"	261mm	9.20"	234mm	15.25"	387mm
12"	12.29"	312mm	10.20"	259mm	17.25"	438mm



## ELECTRICAL

POWER REQUIREMENTS ..... 24 VAC, 50/60 Hz.

MINIMUM WIRING REQUIREMENTS ..... 18 gauge 90° C.

THERMOSTAT ANTICIPATION ..... 0.1 amp. + gas valve current.

### DAMPER MOTOR

Power draw requirements ..... 6 watts at 24 VAC when closed or closing.

Torque (running) ..... 20 in./oz. (.1412N/M) minimum at 20.4 volts.

Timing ..... opens in 3 seconds (0.05 minutes), closes in 8 seconds (0.1333 min.)

Time delay ..... begins closing 4 seconds after signal to close when stack temperature falls below 225° F.

Characteristics ..... power close, spring open.

Type ..... synchronous, hysteresis.

SWITCHING ..... 2 precision snap acting micro switches, 5 amps resistive at 125/250 VAC.

P.C. BOARD ..... 2 oz./ft.<sup>2</sup> one side copper, flame retardant.

## SPECIFICATIONS

PART NO.*	VENT SIZE	SHIPPING WT. (lbs.)	Standing Pilot			
			KNOCKOUT DIAMETER	KNOCKOUT AREA	FREE AREA	D <sub>0</sub> FACTOR
SL 220008	8"	4.1	N/A	1.219	1.2193	.1656
SL 220009	9"	4.4	N/A	2.4610	2.4613	.0586
SL 220010	10"	4.7	N/A	2.4610	2.4613	.0469
SL 220012	12"	5.2	N/A	2.4610	2.4613	.0320

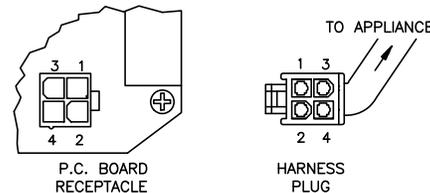
## AVAILABLE PLUG-IN WIRING HARNESS

SL22 Dampers incorporate a receptacle for quick, easy and trouble free connection to the wiring harness. AH18 Series harnesses contain an industry standard plug on the appliance end. Other series are available to conform to the appliance manufacturer's special requirements. Custom lengths are available by special order. See harness specification sheets or consult FLAIR for details.

PART NO.	DESCRIPTION
AH184204	Adapter is to be used when receptacle equipped Stack Packs are to be wired to non-plug-in harnesses. Consists of damper connector, 4" leads and wire nuts.
AH189048	Plug on Damper end. Industry standard plug on appliance end. Plastic cable - 48" length.
AH189096	Plug on Damper end. Industry standard plug on appliance end. Plastic cable - 96" length.
AH189148	Plug on Damper end. Industry standard plug on appliance end. BX cable - 48" length.
AH189196	Plug on Damper end. Industry standard plug on appliance end. BX cable - 96" length.

\* To include a bx cable harness with industry plug on appliance end, substitute the numbers "48" or "96" for the first "00" of the damper part number.

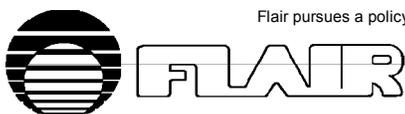
## RECEPTACLE/PLUG WIRING DIAGRAM



WIRE	DESCRIPTION OF OPERATION
1	24 VAC input
2	24 VAC input
3	To gas valve
4	To thermostat or controller

## REPLACEMENT PARTS & ACCESSORIES

PART NO.	DESCRIPTION
RP546000	Replacement actuator.
RP100000	Actuator cover.
RP103010	Vane knockout plug.
AS000405	Vent safety switch (spot sensor).
AS000406	Vent safety switch (capillary sensor).



Flair pursues a policy of constant improvement. For this reason, specifications are subject to change without notice.

FLAIR INTERNATIONAL CORPORATION

600 Old Willets Path • Hauppauge, New York 11788 • Tel: (516) 234-3600 • Fax: (516) 234-3610