

Ignition Pilot Modules

S89E,F Direct Spark Ignition Modules



Provide electronic control of direct spark ignition systems, with external spark transformers, used on gas-fired furnaces, boilers, conversion burners and other heating appliances.

- Controls ignition sequence and gas control operation in direct spark ignition systems.
- Control separate 120 Vac spark generator that provides high voltage potential for main burner ignition.
- Lockout after one trial for ignition if main burner fails to ignite.
- Reset from thermostat after lockout. Use separate electrodes for spark ignition and flame sensing.
- Use any 24 Vac combination gas control designed for direct spark applications and rated at 2.0A or less.

Application: Provide electronic control of direct spark ignition systems used on gas fired furnaces, boilers, and other heating appliances.

Dimensions, Approximate: 5 1/4 in. high x 4 1/16 in. wide x 1 15/16 in. long (133 mm high x 103 mm wide x 49 mm deep)

Type of Gas: Natural or LP

Electrical Ratings: 24 Vac

Frequency: 60 Hz

Flame Sense: Two Rod

Ignition Sequence: Single trial for main burner ignition (then shut down and lockout)

Ignition Source: External (120 Vac powered) High Voltage Spark Generator

Ignition System Type: Direct Spark Ignition

Maximum Valve Load @ 24 Vac (Amps): 2A

Typical Gas Control: VR8205, VR8305

Typical Ignition Hardware: Q652, Q345

Maximum Ambient Temperature: (-40 C to +79 C) -40 F to +175 F

Approvals:

Canadian Standards Association: Design Certified

Product Number	Flame Failure Re-ignition Time (sec)	Flame Failure Response Time (sec)	Ignition Trial Time (sec)	Ignition Trials To Lockout	Lockout Timing	PrePurge	Includes
S89E1058	0.8 sec. maximum	2.0 sec. @ 2.5 microamp	4 sec.	1	4 sec.	—	—
S89F1098	0.8 sec. maximum	2.0 sec. @ 2.5 microamp	4 sec.	1	4 sec.	30 sec. minimum	—
S89F1106	0.8 sec. maximum	2.0 sec. @ 2.5 microamp	4 sec.	1	4 sec.	30 sec. minimum	Labels applied upside down for inverted mounting

Y8610U Universal Retrofit Intermittent Pilot Gas Burner Ignition Systems



Complete kits converting conventional standing pilot system to intermittent pilot system. For use with 24 Vac gas-fired atmospheric furnaces, boiler and heating appliances.

- Y8610U kits are for use with natural or LP gas: provides 100 percent pilot gas shutoff if pilot fails to light; after 6-minute delay, trial for ignition is repeated.
- Ignition trail/delay sequence is repeated until the appliance lights or call for heat is removed.

Application: Provide electronic control of intermittent pilot ignition systems used on gas fired furnaces, boilers, and other heating appliances.

Dimensions, Approximate: 3 15/16 in. high x 5 7/16 in. wide x 2 5/8 in. deep (100 mm high x 138 mm wide x 67 mm deep)

Type of Gas: Natural or LP

Electrical Ratings: 24 Vac

Frequency: 60 Hz

Flame Sense: Single Rod or Two Rods

Ignition Sequence: Continuous retry, after trial for ignition, pilot gas

shuts off for 5 minutes, then another trial for pilot ignition takes place

Ignition Source: Internal high voltage spark generator

Ignition System Type: Intermittent Pilot

Maximum Valve Load @ 24 Vac (Amps): 1A Pilot, 2A Main @ 24Vac

Typical Gas Control: VR8204, VR8304





Typical Ignition Hardware: Q345, Q3451

Maximum Ambient Temperature: (-40 C to +74 C) -40 F to +165 F

Product Number	Flame Failure Response Time (sec)	Ignition Trial Time (sec)	Ignition Trials To Lockout	Lockout Timing	PrePurge	Includes
Y8610U4001	2.0 sec	15 or 90 seconds	continuous retry	15 or 90 seconds	0 or 30 seconds	VR8204A2142 valve (1/2 x 1/2; 3.5 in. WC setting; 150 kBtu/hr at 1 in. p.d.)
Y8610U6006	2.0 sec	15 or 90 seconds	continuous retry	15 or 90 seconds	0 or 30 seconds	VR8304M3558 (1/2 x 3/4; 3.5 in. setting; 270kBtu/hr at 1 in. p.d.)

Ignition Pilot Module Accessories

Gas Ignition Module Accessories

Product Number	Description	Picture
392125-1	25 in. ignition cable assembly with a right angle boot on the igniter end and a straight boot on the module end. For use with the S86/S87 family.	
392125-2	36 in. ignition cable assembly with a right angle boot on the igniter end and a straight boot on the module end. For use with the S86/S87 family.	
392125-5	18 in. ignition cable assembly with a right angle boot on the igniter end and a straight boot on the module end. For use with the S86/S87 family.	
393044	Y86 Wiring Harness Assembly	
394800-30	30 in. Ignition Cable with Right Angle Boot for use with S8600 family	
394801-30	30 in. Ignition Cable Assembly with straight boot for use with S8600 family	
4074EPM	Male Rajah to 1/4 in. Female Quick Connect adapter for use with S8600 family	