# S8910U Universal Hot Surface Ignition Module

### **PRODUCT DATA**



## **APPLICATION**

The SUPER TRADELINE® S8910U Universal Hot Surface Ignition Module is designed to provide easy field replacement of a wide range of hot surface ignition modules manufactured by Honeywell, Robertshaw and White-Rodgers. The S8910U Module provides operating control of a direct ignition system using a 120 Vac hot surface igniter.

### **FEATURES**

- Replaces many White-Rodgers, Robertshaw and Honeywell hot surface ignition models. (See Tables 2, 3, and 4.)
- For 120 Vac (up to 5.0A) surface igniter (Norton 201/ 271 or equivalent).
- For local (single rod) or remote (dual rod) rectification type flame sensing.
- Contains easy-to-use instructions plus the accessories required to adapt the existing hot surface ignition module.
- Provides one or three ignition trials (four-second or seven-second trials) per call for heat; prepurge of 32 seconds or less; up to 96 seconds between purge trial times.
- Temperature range is -40° to 175°F (-40° to 79°C).

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### **SPECIFICATIONS**

#### IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not exactly match the listed specifications. Also, this product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.

### Super TRADELINE® Models

The SUPER TRADELINE® S8910U package contains the S8910U control, and easy-to-use instructions, plus the accessories required to adapt the existing hot surface ignition module. The accessory bag assembly includes the White-Rodgers adapter, Robertshaw ground lead, four 1/4 in. female .032 quick-connects, one 3/16 in. female .032 quick-connects, four selection tabs and seven wiring labels. The wiring labels are included to assure proper marking of the wires attached to the existing module.

A complete listing of the specific Honeywell and other modules that the SUPER TRADELINE® S8910U is designed to replace is provided in Tables 2 through 4.

NOTE: The S8910U is intended to replace only defective ignition controls. The service technician should make sure that the other parts of the appliance and control system operate safely and reliably before replacing the ignition control.

#### Super TRADELINE® Model Available:

S8910U Universal Hot Surface Ignition Module.

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#### EXPLOSION HAZARD. CAN CAUSE INJURY OR EQUIPMENT DAMAGE.

The S8910U can be used only for direct replacement. Check Tables 2 through 4 before replacing an existing hot surface module with the S8910U. If the existing module is not listed, do not use the S8910U to replace it. Always use the selection tab specified in Tables 2 through 4 for the existing module being replaced. Replacing an unlisted module or using a selection tab other than specified can result in appliance malfunction.

#### **Electrical Ratings:**

Control Voltage: 24V, 60 Hz. Maximum Valve Contact Rating: 2A. Current Draw: .4A plus valve load. Hot Surface Igniter Voltage: 120 Vac, 60 Hz. Contact Rating at 120 Vac: 5A.

#### IMPORTANT

The S8910U is to be used only in a 60 Hz system. Be sure the system is not 50 Hz.

#### Hot Surface Igniter Or Igniter-Sensor:

Norton Model 201 or 271 or equivalent.

- NOTE: If an igniter other than a Norton Model 201 or 271 is used, the igniter must meet the following minimum specifications required over the life of the igniter:
  - Igniter must reach 1832°F (1000°C) within 34 seconds with 102 Vac applied.
  - Igniter must maintain at least 500M ohm insulation resistance between the igniter leadwires and the igniter mounting bracket.
  - Igniter must not develop an insulating layer on its surface (over time) that would prevent flame sensing.
  - Igniter surface area immersed in flame must not exceed one-fourth of the grounded area immersed in flame. This would prevent flame sensing.
  - Igniter current draw at 132 Vac must not exceed 5A.

# ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number, or specify:

- 1. Order number.
- 2. Accessories, if desired.
- 3. Order additional system components and system accessories separately.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

- 1. Your local Home and Building Control Sales Office (check white pages of your phone directory).
- Home and Building Control Customer Logistics Honeywell Inc., 1885 Douglas Drive North Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V 4Z9. International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

#### Sensor:

Separate sensor required for remote sensing applications.

#### Wiring:

Use existing appliance wiring. If repair or replacement of leadwires is required, follow instructions on appliance label. Use included quick connect terminals and wiring adaptors according to instructions.

#### Prepurge:

32 seconds.

#### **Igniter Warmup:**

34 seconds.

#### **Between Trial Purge:**

96 seconds (3 trial mode only).

#### Flame Failure Response Time:

1.5 seconds maximum.

#### **Ignition Sequence:**

The number of trials for ignition and trial time are determined by the selection tab. See Table 1. If a selection tab is not installed, the module operates at four seconds trial time and one ignition trial.

#### Table 1. Selection Tab Specifications.

Selection Tab	Trial Time (Seconds)	Number of Ignition Trials
A	4	1
В	4	3
С	7	1
D	7	3

#### Ambient Operating Temperature:

-40°F to +175°F (-40°C to +79°C).

#### **Dimensions:**

See Fig. 1.

#### Accessory Kit (Included):

- White-Rodgers adapter.
- Robertshaw ground lead.
- Four 1/4 in. female .032 quick-connects.
- One 3/16 in. female .032 quick-connect.
- Four selection tabs.
- · Seven wire labels.

#### Approvals:

IAS Design Certified: Report No. C2030018.



#### Fig. 1. Approximate ignition module dimensions in in. (mm).