

MAXITROL®

Selectra® SC30 Series Signal Conditioners

For Indirect Fire Gas Applications Using 2-speed Inducers and 2-stage Gas Valves

⚠ CAUTION

READ PRIOR TO INSTALLATION: To Avoid Internal Damage to SC30 Series Signal Conditioners Follow These Guidelines.

1. Transformer secondary must **not** be grounded in any portion of the circuit external to the SC30 Series signal conditioners. A separate, independent transformer is recommended.
2. Multiple SC30 Series signal conditioners controlled by a signal source with common outputs (terminals 7 & 8) require separate transformers for each SC30 Series signal conditioner.
3. Multiple SC30 Series signal conditioners powered by a single transformer require independent signal inputs (terminals 7 & 8) to each SC30 Series signal conditioner.



Figure 1: SC30 Series Signal Conditioner

DESCRIPTION

The track mounted SC30 Series controls three functions:

- 1) Converts a controller's DC output signal of 0-10 volts to a 0-20 VDC signal to provide compatibility with Maxitrol's M/MR Series gas valves.
- 2) Controls the normally open relay used to switch inducer speed and gas valve stage. Closes or opens the relay based on controller's DC output to the SC30.
Relay closes at approximately 5.3 VDC input
Relay opens at approximately 4.7 VDC input
- 3) Provides an adjustable timer SC30 (0-30 sec) or fixed time, SC30-XXX: specified in 15 second increments (beginning with 45 seconds - 045) and adjustable VDC (5-15 VDC) output to the modulating gas valve on startup (powering of SC30). The feature eliminates problems associated with lighting the burner at its lowest gas input.
Adjustment potentiometers:
R18 0-30 second timer (SC30 only)
R22 5-15 VDC output voltage (All)

Additional relays and timers external to SC30 can be replaced with TR1 - Timer Relay Control. See TR1_MI_EN.

Modulator and modulator-regulator valves are available up to 5 psi (350 mbar) inlet pressure, 30,000 CFH (850 m3/h) maximum, and pipe sizes from 3/8" to 4". (For additional valve information see Bulletin MMR_MT_EN, or consult your Maxitrol sales representative.)

SPECIFICATIONS

DIMENSIONS: 4.75" W x 3.38" H x 2.09" D

SIGNAL CONDITIONER

Ambient Limits -40° to 150°F (-40° to 66°C)

SIGNAL CONDITIONER POWER REQUIREMENTS

24 VAC transformer, 20 VA capacity (50/60 Hz).
(No grounded secondary.)

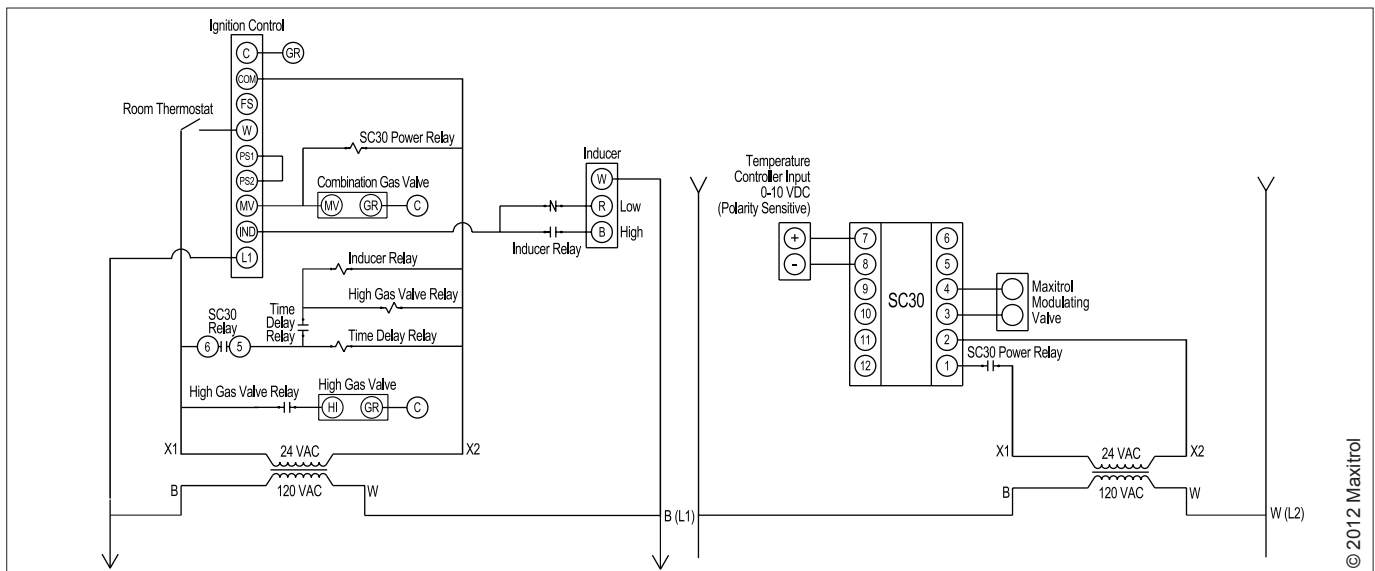


Figure 2: Wiring Diagram

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