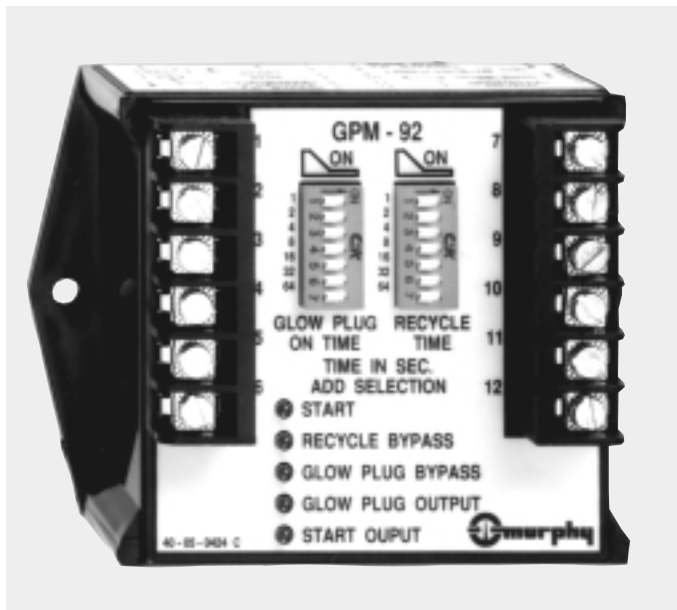


# Glow Plug Control Module



## Model GPM92

- Automates Manual Glow Plug Preheat and Recycling Control in Diesel Engines
- Compatible with Most Murphy Automatic Start/Stop Controllers
- Two Field-Adjustable Time Delays:
  - Timer for Preheating Glow Plugs Before Initiating Start Sequence
  - Recycle Timer-When Engine Fails to Start on First Attempt
- Preheat Bypass Circuit for Warm Weather
- LED's to Assist with Sequence of Operations

### Description

The GPM92 is a solid-state delay module for automating the glow plug preheating and recycling process in diesel engines with automatic start controls.

The start signal is connected to the GPM92 allowing the glow plugs to be preheated before the starter is engaged.

The GPM92 is designed to operate from either a maintained close to run, open to stop signal or a momentary close to run, momentary close to stop type circuit. The auto start controller must be configured to operate from a maintained close to run signal.

The module includes two adjustable time delays, one for glow plug preheating time and the other to allow the auto start module to crank the engine and start it.

If the engine fails to start before the recycle time delay expires, the GPM92 recycles for the full time set on the glow plug delay timer. It then signals the auto start controller to initiate a new cranking cycle until the engine starts.

One bypass circuit overrides glow plug preheat time with a glow plug ready signal and controls the length of the glow plug heating cycle.

A second bypass circuit is provided to turn off the glow plugs when the engine starts.

The preheat is locked out, and the start signal is locked into the auto start controller until a stop signal is received. This circuit can also

be used with an external summer/winter switch to bypass the preheat system during warm weather when preheating is not required.

The GPM92 requires an external relay to handle the high current to the glow plugs.

### Application

The GPM92 is intended for use on all diesel engines that require glow plug or flame type preheat and are equipped with automatic start-stop controls. The GPM92 is ideal for Murphy Automatic Start Controllers which do not include glow plug control provisions or other cold weather starting aids.

### Features

- Solid-State Control Module
- Easy DIP Switch Programming
- 5 LED Signal Indicators for:
  - Start (GPM92 receives start signal.)
  - Recycle Bypass (Recycle bypass input received/engine running.)
  - Glow Plug Bypass (Bypass input circuit has closed.)
  - Glow Plug Output (Relay energized for heating glow plug.)
  - Start Output (Preheat cycle completed.)
- Quick Connect Terminal Blocks
- Compact Design

### Specifications

#### Power Requirements:

Voltage: 8-30 VDC.

Current: 30 mA maximum @ 30 VDC.

Input Polarity: *negative ground.*

#### Signal Inputs:

Start: *Single pole, single throw (SPST) maintained, close to negative to run, open to stop or 2 SPST momentary, close to negative to start and close to negative to stop.*

Glow Plug Time Delay Bypass: *SPST maintained, close to positive to bypass.*

Recycle Time Delay Bypass: *SPST maintained, close to negative to bypass or SPST maintained, close to positive to bypass.*

#### Output:

Glow Plug Relay: *Transistor, sinks to negative, 1 A @ 30 VDC.*

Start: *Dry relay contact, 2 A @ 30 VDC.*

**NOTE:** *A customer-supplied relay for glow plugs is required.*

**Glow Plug Timer:** *Adjustable from 1-127 seconds; 7-element binary DIP switch.*

**Recycle Timer:** *Adjustable from 1-127 seconds; 7-element binary DIP switch.*

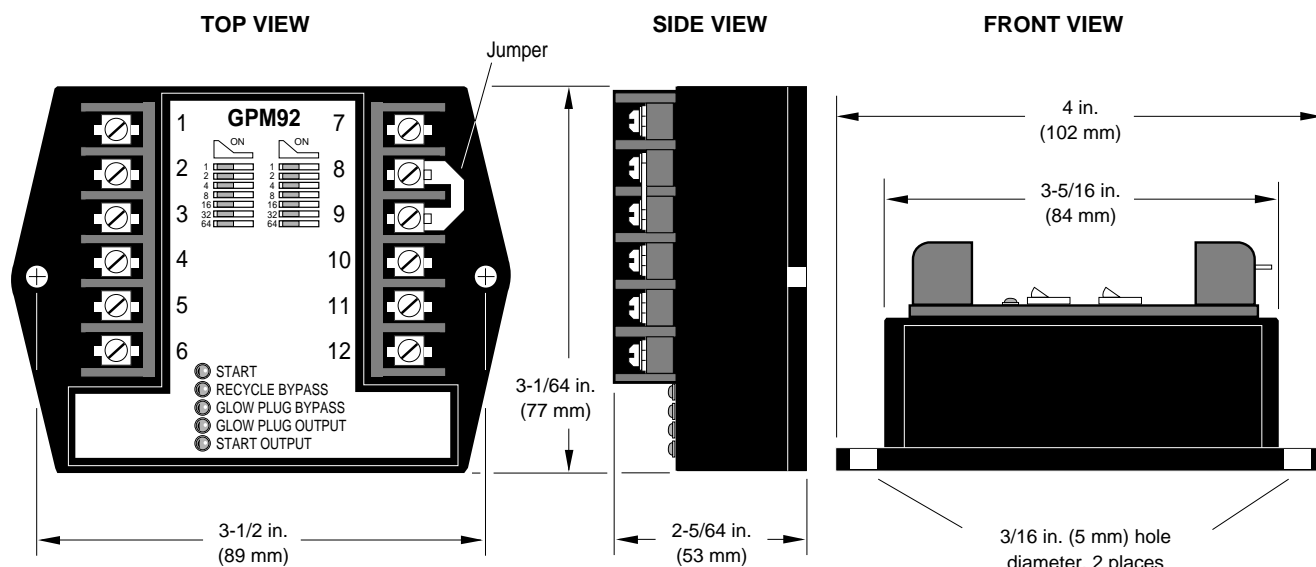
**Temperature Range:** -4 to 185°F (-20 to 85°C).

**Case:** ABS Plastic Housing

**Shipping Weight:** 0.488 lb. (0.221 kg).

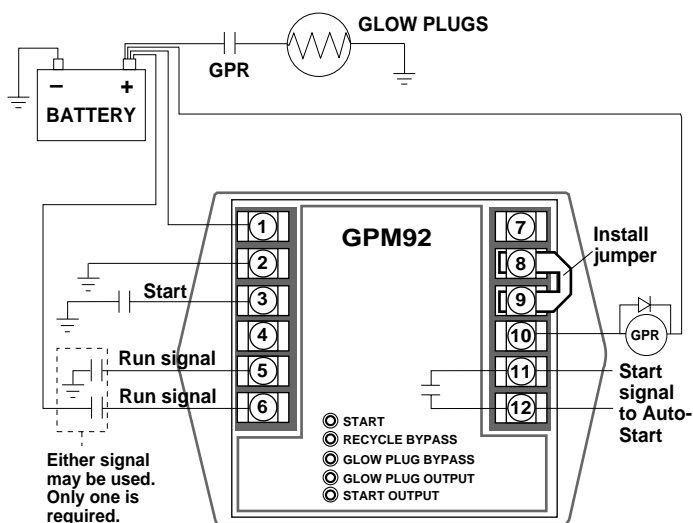
**Shipping Dimensions:** 4-3/4 x 4-3/4 x 3-1/8 in. (121 x 121 x 79 mm).

## Dimensions

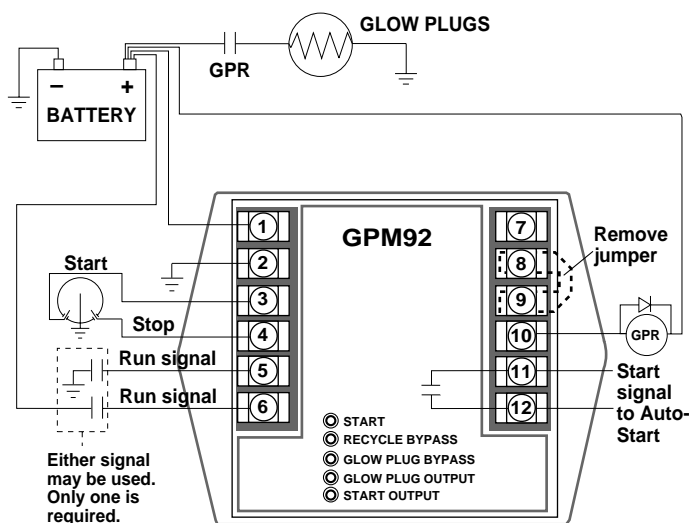


## Typical Wiring Diagrams

### Basic Connections Start-Stop from "Maintained" Type Contacts



### Basic Connections Start-Stop from "Momentary" Type Contacts



## How to Order

To order the Glow Plug Control Module specify **GPM92**.

## Warranty

A two-year warranty on materials and workmanship is given with this Murphy product. Details are available on request and packed with each unit.

*In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.*



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