

3044196 Control Governor for Diesel Engine

Quick Guide

1. Summary

The 3044196 are a high performance control governors for diesel engine, especially reliability, environment suitability while wide working voltage, anti-interference ability and protection ability were enhanced.

2. Technical Characteristics

2.1 Basic Functions

- 2.1.1 It is suitable for Cummins NT855, M11, K19 series constant speed engine;
- 2.1.2 Run/Idle mode switch
- 2.1.3 Remote Speed Adjust
- 2.1.4 Run speed and idle speed setting
- 2.1.5 Gain and Droop setting
- 2.1.6 Smoke control setting

2.2 Working parameters

- 2.2.1 Rated Voltage: 24±6 VDC
- 2.2.2 Maximum Output Current: 2.1A
- 2.2.3 Speed Signal: Sinusoidal Signal, effective value not less than 1.7V
- 2.2.4 Speed Adjustment Range: 500 ± 50Hz(speed range dependent on flywheel gear tooth No.)

2.3 Working Environment

- 2.3.1 Temperature Range: -40 ~ +70°C
- 2.3.2 Relative Humidity: <90%
- 2.3.3 Vibration Acceleration: ≤100m/s²
- 2.3.4 Shock Acceleration: ≤150m/s²

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3.2.3 Speed Signal

5# Terminals: Speed Signal, 6# Terminals: GND for Speed Signal.

Make sure the Common Ground Terminals are unified when the speed signal source is common used by more than one equipment.

Twisted and shield harness must be used to connect the control governor and speed sensor when complicated electromagnetic environment existed, ground wire of shield harness must be connected to the engine or other point near the speed sensor.

3.2.4 Remote Speed Adjust

A multi-turn potentiometer mounted on the panel should be connected to 7#, 8# and 9# terminals as Remote Speed Adjuster.

The 5 (4.7) k Ohm Potentiometer's PN is 3015105. Its 2# pin should be connect to the 8# terminal of Control Governor. A 120K-Ohm resistor could be series connected on 8# terminal in the circuit in order to improve engine stability, if necessary.

Keep the 8# and 9# terminals open if Remote Adjusting is not needed.

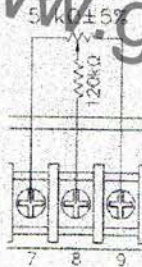
3.2.5 Idle/Run Mode Switch:

10 # terminal is Idle / Run mode switch interface. A switch or relay could be connected between 7# and 10 # terminals.

When the switch or relay is open, control governor will work in RUN Mode. While the switch or relay is closed, control governor will work in IDLE Mode.

3.2.6 Common GND

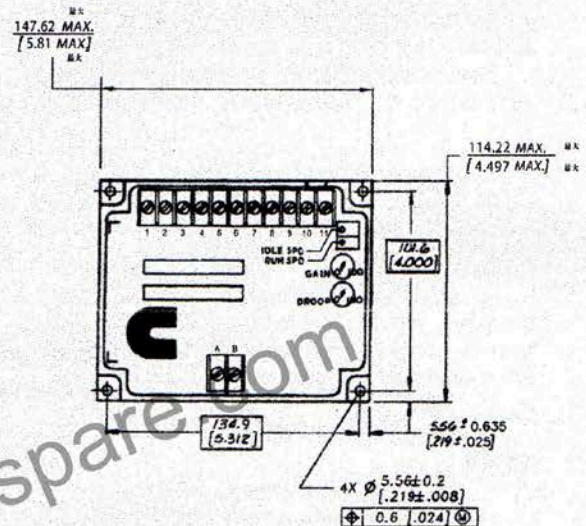
11 # terminal is spare GND, and do not need to be connected in normal condition.



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3 Operating Instructions

3.1 Appearance and Installation Dimension:



3.2 Connection Method

3.2.1 Battery

1# Terminal :Power+ ;2# Terminal :GND. 1mm² or larger size copper wire should be connected. 5A fuse should be added to power line.

3.2.2 Actuator Connection

3# & 4# Terminals: to Normal Close Actuator. Use 1mm² or larger size copper wire. Do not short circuit the terminals to GND.

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3.2.7 Damping Terminal

A# and B# terminals are extension damping, If Gain Adjustment couldn't satisfy the stability requirements, connect the two terminals directly.

3.3 Tuning and Operation:

3.3.1 Droop

This Potentiometer is used to set the degree of speed decline when the engine is carrying load.

3.3.2 GAIN

This potentiometer is used to set the sensitivity of speed adjustment when the engine's load is changed. Turn it clockwise decrease the sensitivity while turn it counterclockwise increase the sensitivity for normal close actuator.

Adjusting Droop Potentiometer may be helpful to keep the engine stability in some special situation.

3.3.3 RUN

This potentiometer is used to set the target Run-Speed. 1800rpm is the default value if 1500 and 1800 rpm run speed exist in one engine. Turn 3~5 rounds counterclockwise if 1500 rpm is needed, or else, genset may alarm and shutdown.

3.3.4 IDLE

This potentiometer is used to set the target Idle Speed.

Warning: the control governor wire tied with heavy current wire was forbidden!

Note: See more details on 3379231 electrical fuel control governor guide

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