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GOV+
ELECTRONIC SPEED GOVERNOR FOR USE WITH PLC+ PANELS

- Provides speed governing function to PLC's or operates as stand-alone governor control.

- Integrated Ethernet port for communications to a PLC/PC or other communication device.

- Input from magnetic pickups or Hall-effect sensors.

- Specifically designed to interface with PLC+ panels and HMIs.

- User-selectable communication protocols: EtherNet/IP™ or Modbus/TCP

- On-board web page allows for configuration and monitoring.

- Amplified isolated output signal mimics input frequency.

- Actuator driver from configurable 4-20mA or 0-10V output with respect to speed.

- A discrete input is available for connection to an engine temperature monitoring switch to control warmup duration.

- Configurable startup logic: Ready, purging, starting, warmup, running.

- Three adjustable warmup ramps: configurable ramp speed. The desired speed can be adjusted remotely by a potentiometer or by 4-20mA (rpm/sec) and hold timers. Use one or all three.

- Configurable tuning parameters.

- Pluggable connectors with convenient push-in spring-cage connections.

- On board diagnostic LEDs.

- "Wink-Mode" for multiple PLC module identification.

- DIN-rail mounted.

- CSA and UL Certified for Class I, Division 2, Groups C and D.

The PLC+ product line was developed by Altronic to allow easy integration of engine/compressor/generator function specific I/O through Ethernet to industry standard PLCs. The PLC+ Modules are designed to seamlessly deliver efficient, hazardous area approved, cost effective I/O functions that are not normally available by off-the-shelf PLC hardware.

The PLC+ modules were designed with Rockwell Automation Control Logix and Compact Logix in mind. EtherNet/IP, implemented in the PLC+ Monitors, along with Modbus/TCP, allow seamless communication over Ethernet to Rockwell Automation PLCs as well as a wide range of other industrial PLCs. The PLC+ Monitors are based upon taking a time tested Altronic designed device with specialty I/O functions such as Analog and digital I/O, vibration, detonation, speed, and others and marrying it to a communications board packaged in a rugged, cost effective, shock and dust-resistant package.

The GOV+ Electronic Speed Governor is a module in the PLC+ product line. It provides closed loop speed control of an engine by controlling an actuator. It can communicate to PLC's to monitor and control processes via Ethernet/IP or Modbus TCP. The speed input pulse can come from magnetic, Hall-effect, or other types of active pickups. A configurable 4-20mA or 0-10V analog output signal can be used to control an actuator position to control the speed. The GOV+ has the following startup logic: ready, purging, starting, warmup, and running. The GOV+ has three adjustable warmup ramps with configurable ramp speed in rpm/sec with hold timers. The GOV+ is designed for use as a component of a PLC+ Control Panel, or as a stand-alone product. PLC+ panels use one or more such devices for engine control and monitoring. The Ethernet port allows the monitored values to be communicated to a PC, PLC, or other communications device using either Modbus/TCP or EtherNet/IP protocol. These values can be displayed on an HMI display and compared to user adjustable setpoint levels for sequencing, and/or alarm and shutdown.

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Module Dimensions

1.75 [44.50]

4.27 [108.50]

5.28 [134.2]

4.33 [110.1]

Magnetic Pickup 691118

Hall-Effect Pickup 791050

5/8"-18

THREADED LENGTH

N 691 118
tronic in

N 791 050
tronic in

1.55

1.75 CONNECTOR CLEARANCE

.80 DIA.

.80 DIA.

10SL-4P CONNECTOR

10SL-3P CONNECTOR

Specifications

Power Requirement............................10-32VDC, 0.60 AMP max.

Ambient Temperature Range...............-40°C to 80°C (-40°F to 176°F)

Enclosure..Extruded aluminum, NEMA Type 1

Mounting ....Mounts to 35mm rails

Speed Input......................................Pulses from magnetic pickups, Hall-effect sensors

Input Frequency Range ....1Hz to 100kHz

Range...0 to 3,000 RPM

Update Rate......................................30 milliseconds

I/O and Power Connections.................Pluggable, push-in, spring-cage

Communication Protocols...................Modbus/TCP and EtherNet/IP

Module Configuration ....Built-in web pages or Modbus

Connector, Ethernet Port ....Shielded RJ45 socket

Network Wiring Interface....................Auto MDI/MDIX

Connections ....Up to 5 connections

Data Rate ....Auto-sensed, 10/100Mbps

Address ....Auto IP, Boot P. Static

LED Indicators ....Power, Status, Link, RX/TX, SW1, SW2

Analog Inputs....................................2 ea., 0-20mA or 0-5V

Discrete Inputs..................................2 ea., internal pull up to 3.3V

Voltage Output ....0 to 10V, 0.5 amp max.

Current Loop Output ....4-20mA forward or reverse acting

Output Switch ....2 programmable, solid-state switches, rated 32VDC, 0.2 AMP continuous, optically isolated from power supply

Switch 1 Configuration ....NC/NO, Failsafe/Shelf

Switch 2 ....N/O, Failsafe (closed for run)

Hazardous Area Classification ....Class I, Div. 2, Groups C & D Certified for direct hook-up, Temp Code T4, max ambient temp 80°C

Ordering Information

Speed Govenor ....Model GOV+

Magnetic pickups

1.75" threaded length 691118-1

2.50" threaded length........................691118-2

3.00" threaded length........................691118-3

4.50" threaded length........................691118-4

6.00" threaded length 691118-6

Cable assemblies, magnetic pickups

Unshielded type ....693104-x *

Shielded type, 180° connector............593048-x *

Shielded type, 90° connector ....593054-x *

Hall-effect pickups

1.75" threaded length 791050-1

2.50" threaded length........................791050-2

4.50" threaded length........................791050-4

6.00" threaded length........................791050-6

Cable assemblies, Hall-effect pickups

Unshielded type 593050

Shielded type, 180° connector............593052-x *

Shielded type, 90° connector ....593057-x *

* See current price list, under MAGNETIC PICKUPS AND CABLES

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HOERBIGER Engine Solutions