



SG 2D

Speed Governor

APPLICATIONS

The SG 2D is a universal digital speed control for combustion engines.

The SG 2D is configured via a direct configuration cable (DPC), a PC, and a PC software tool. Configuration of the SG 2D can also be carried out utilizing the push buttons and the four-digit display on the control.

The SG 2D is designed to drive a variety of electric actuators such as a solenoid style (rotary or linear) or a smart actuator via a PWM control signal.

The SG 2D has a configurable start fuel limit level [%] and ramp rate [%/s]. The speed reference can be changed remotely through the analog (0/4 to 20 mA or +/-3 Vdc) speed bias input. This remote speed input allows for isochronous load sharing using external power management products (e.g. Woodward GCP Series).

The overspeed protection, maximum fuel limit, and actuator droop may be adjusted in the SG 2D.

DESCRIPTION

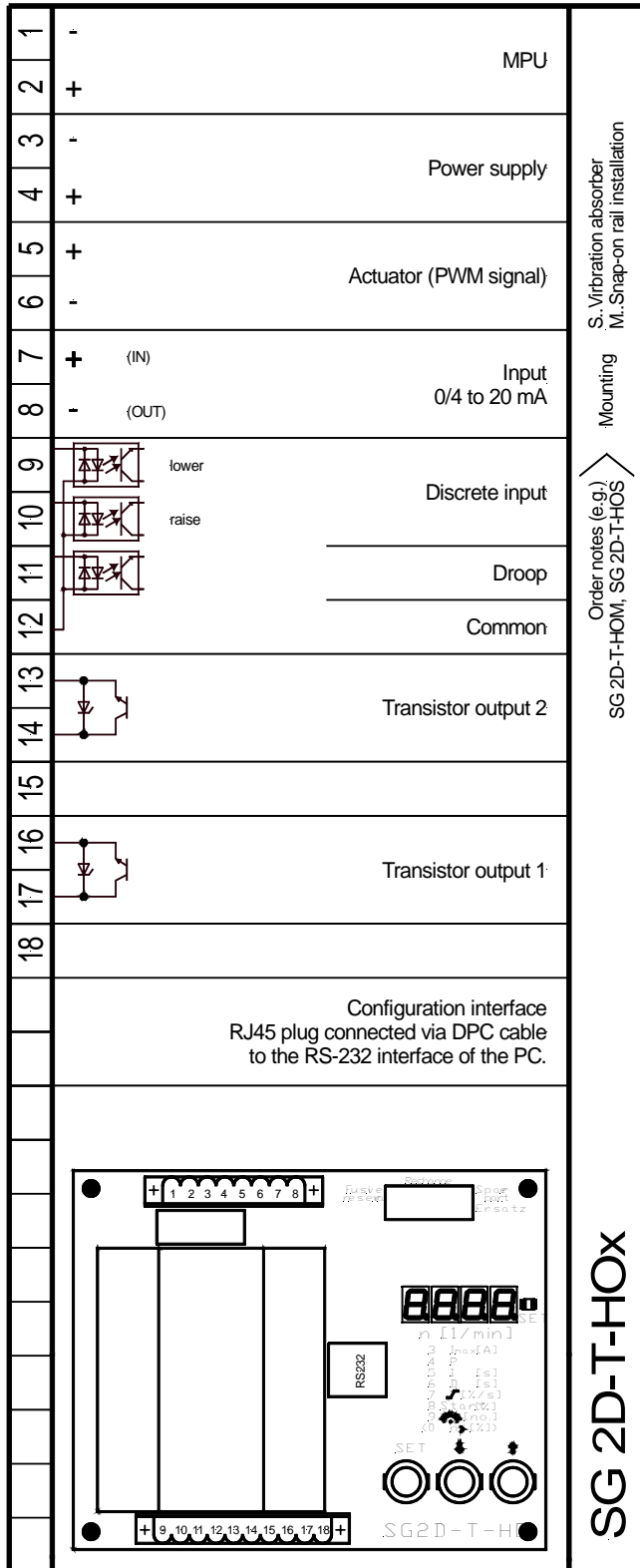
The SG 2D speed control is designed for a wide variety of applications ranging from variable speed mechanical drives to isochronous gensets.

Features

- A magnetic pickup input for direct measurement of the engine speed via an inductive or switching Pickup
- 2 transistor outputs for overspeed annunciation
- Raise/lower discrete inputs for speed reference value specification
- Analog speed bias input for changing speed reference point (version dependent; refer to Features Overview)
- Discrete input for droop control and switching of control dynamics
- 4-digit 7-segment LED display
- PC configurable
- PWM signal to control an actuator (version dependent; refer to Features Overview)
- Idle speed enable via DI
- Manual external speed reference via DI overrides analog external speed reference

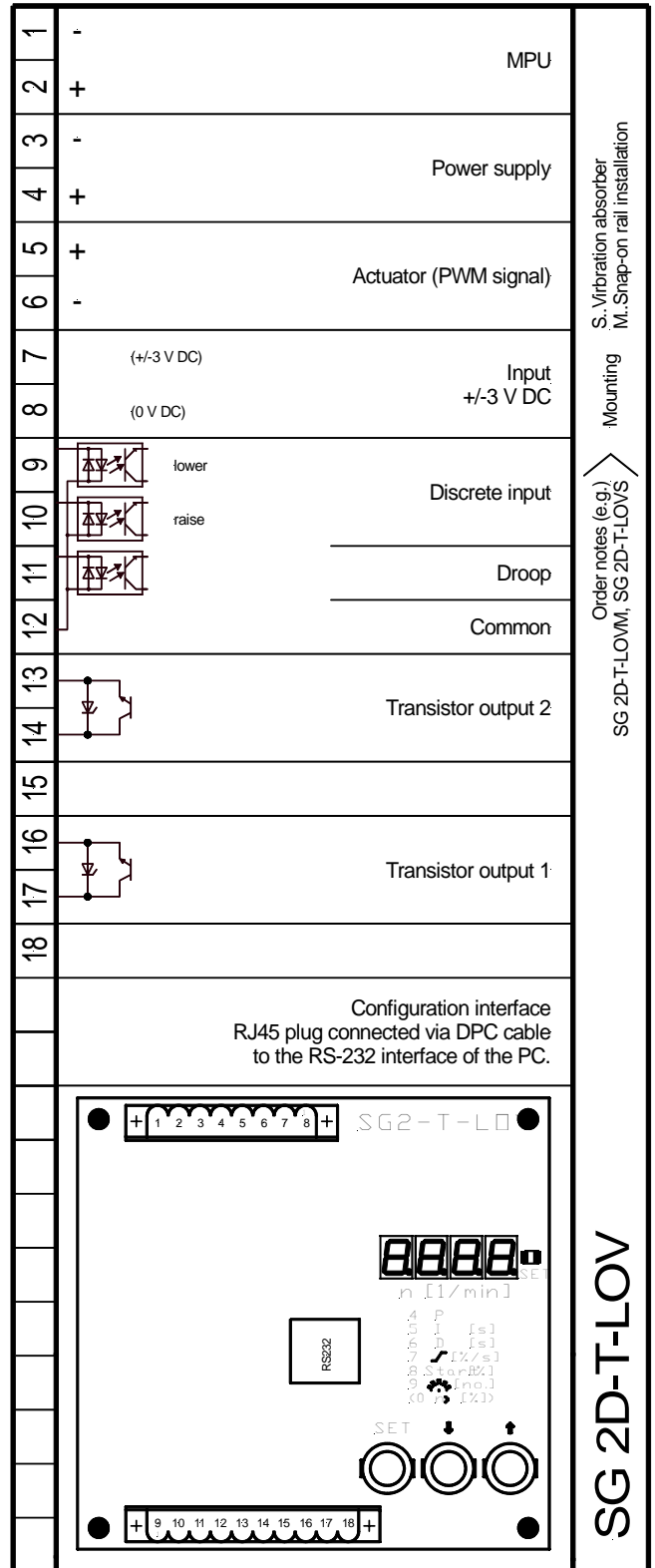
- Speed measuring via magnetic pickup (switching or inductive)
- Digital PID speed control designed for wide range of applications with two sets of PID dynamics
- Compatible with multiple styles of electric actuators, such as solenoid style (rotary or linear) and PWM control signal
- Limitation of actuator current [SG 2D-T-HOx]
- Analog (0/4 to 20 mA or +/-3 Vdc) and discrete raise/lower speed reference input
- Adjustable start fuel limit & ramp rate
- Overspeed protection with 2 transistor outputs
- Droop control
- 7-segment display
- PC configurable

WIRING DIAGRAMS



Subject to technical modifications.

2006-01-10 | SG 2D-T Wiring Diagram sg2dww-0206-ap.SKF



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International
 Woodward
 PO Box 1519
 Fort Collins CO, USA
 80522-1519
 1000 East Drake Road
 Fort Collins CO 80525
 Ph: +1 (970) 482-5811
 Fax: +1 (970) 498-3058

Europe
 Woodward Governor Company
 Leonhard-Reglerbau GmbH
 Handwerksstrasse 29
 70565 Stuttgart, Germany
 Ph: +49 (0) 711 789 54-0
 Fax: +49 (0) 711 789 54-100

Distributors & Service
 Woodward has an international network of distributors and service facilities. For your nearest representative, call the Fort Collins plant or see the Worldwide Directory on our website.

Corporate Headquarters
 Rockford IL, USA
 Ph: +1 (815) 877-7441

www.woodward.com/power

For more information contact:

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FEATURES OVERVIEW

	SG 2D		
	-T-HO	-T-HOV	-T-LOV
Setpoint value via ...			
Internal	✓	✓	✓
Discrete raise/lower	✓	✓	✓
0/4 to 20 mA	✓		
+/- 3 Vdc		✓	✓
PWM control output via ...			
7 A continuous / 11 A peak	✓	✓	
45 mA continuous / 85 mA peak			✓
Protection output via ...			
Transistor	✓	✓	✓
Compatible Actuators			
Flo-Tech™			✓
EPG 512, 524, 1712, 1724	✓	✓	
Any commercial actuator with moving coil and return spring	✓#1	✓#1	✓#1
Power Supply			
12/24 Vdc	✓	✓	✓
Accessories			
Configuration via PC #2	✓	✓	✓
Listings/Approvals			
CE	✓	✓	✓
Product Number P/N			
DIN rail mounting type M	8443-1006	8443-1001	
Vibration absorber mounting type S	8443-1005	8443-1003	8443-1004

#1 Dependent on actuator

#2 Cable incl. software necessary (DPC, Product Number P/N 5417-557)