



TR-8614 Throttle Controller

2-1

Dynamometer System

**Features:**

- Permanent Magnet DC Servo Motor
- Reduction Gearbox
- Servo Potentiometer

Applications:**Description:**

TR-8614 controls throttle position, RPM, torque, or manifold vacuum to ± 1 unit accuracy and provides with zero regulation and drift of set points. PID parameters allow TR-8614 to be adjusted to variations in engine under test or in engine operating point.

Teamed with dynamometer controller, all provisions are made for reference and feedback data, instrumentation, and automation control. The TR-8614 may also be used in a stand-alone situation.



TR-8614 Throttle Controller

Specification:

- Control Enclosure
 - Dimensions: 19" × 7" × 13" rack or bench mounted enclosure
 - Weight: 9.08 Kg
 - Input Power: 120VAC, 1 Amp
- Control Output
 - ± 40VDC, 3A max., Actuator Servo Motor drive. Amplifier has instantaneous current limit, and over-temperature shutdown
- Environmental
 - Ambient temperature range : +10 to +40°C
 - Humidity to 95%, non-condensing
- Power Fail Protection
 - Actuator: DC Servo Motor/Gearhead assembly
- Closed Loop Control
 - Highly adaptive, optimum response for all engine conditions
 - Position control, to 0.2% of stroke.
 - Torque control
 - RPM control
 - Control by Manifold vacuum
 - 0% regulation and drift from set-point
 - RPM and torque feedback
- Remote Operators' Control
 - Enclosure: 6.5" X 3.5" X 2.5"
 - Provides upper and lower limit set-up, jog PB
- Auxiliary I/O
 - Customer emergency stop input.
 - Analog feedback input, may be used for position, torque or RPM feedback.
 - Analog reference input, 0 to +10VDC
 - 0 to +10 VDC analog output representing actuator position, optional card (can be used for electronic throttles)
- Fault Control
 - All fault conditions (except amplifier over temperature)
 - Unloaded engine over speed trip programmable RPM
- Model TR8614 Throttle Controller Model and Option
 - Model TR8614: Throttle Regulating
 - Model TR-RB1: Throttle Regulating Remo Box
 - Model TR8614-CN1: Throttle Regulating Constant RPM Modular
 - Model TR8614-CV1: Throttle Regulating Constant Speed Modular
 - Model TR8614-CL1: Throttle Regulating Constant Load Modular
 - Model TR8614-CM1: Throttle Regulating Constant Manifold vacuum Modular
- Model TR8610: Compact Throttle Regulating. With position regulating only, on acc 0-5 V (0~180 deg) command, output 0-5 V actual position (0-180 deg)

2-1

Dynamometer System

