Dynatec® Controls

Dynatec® 2550 Control
Dual Channel Anti-Overlap Clutch/Brake Control

Description:

The Dynatec® 2550 (D2550) is a solid-state anti-overlap clutch/ brake controller, engineered to operate 90 VDC clutch/brake (C/B) coils with current loads up to 1.0 amp; Din rail mounting for ease of installation.

This controller operates one or two coils, incorporating an anti-overlap circuit.

The D2550 incorporates voltage protection on the AC input. When transient voltage spikes or notching is present on AC lines, an isolation transformer is required to filter the incoming power to the D2550.

Specifications

Power Input

Voltage	115 VAC
Current	1.5 amp
Frequency	50/60 HZ
Fusing	Customer-supplied 2 amp

Power Output

Voltage	90 VDC
Current	1.0 amp Max.

D2550 with Sub-Panel Dimensions

Weight	15 oz.
Overall	2.76" H. x 1.97" W. x 4.30" D.

Temperature

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Operating	0° to 65°C (32° to 149°F)

Features:

- Meets 🆄🅻 Certification
- Anti-Overlap Circuit
- 115 VAC Input
- Selective Input Switching Logic
  Cold Contact or Opto-Isolated 3-30 VDC or 115 VAC
- Status/Diagnostic lights:
  Clutch On
  Brake On

| Input Logic	Part No.
115 VAC, 50/60 Hz	214247-040-2201
3-30 VDC	214247-040-2202
Contact Closure	214247-040-2203

Turn right

D2550 Anti-Overlap

When using conventional controls where the output voltage is switched by a relay contact, overlap occurs when you see the arching across the contacts. This indicates that just for an instant the brake and clutch are both engaged. This graph represents overlap. The effect of this is excessive wear and heat to the clutch/brake system.
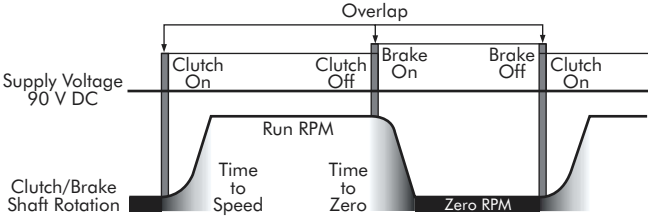
Clutch/Brake Shaft RPM Curve using Conventional Control

The Dynatec® 2550 incorporates MOV's and time delay logic that will prevent the effects of overlap. This graph illustrates the effects of anti-overlap. Notice the difference between the RPM curves. You have a shorter time to speed and time to zero, and the switching is more precise, creating less heat. These controls can actually operate the clutch/brake system at higher cycle rates with better repeatability and less heat than conventional controls.
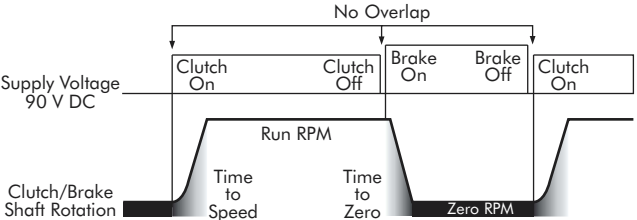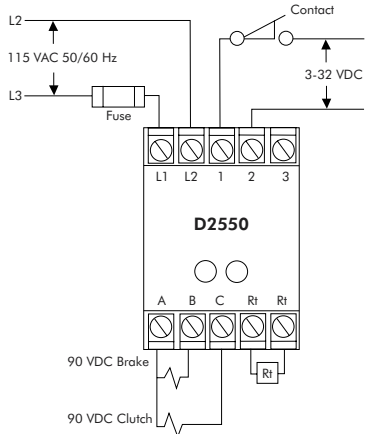
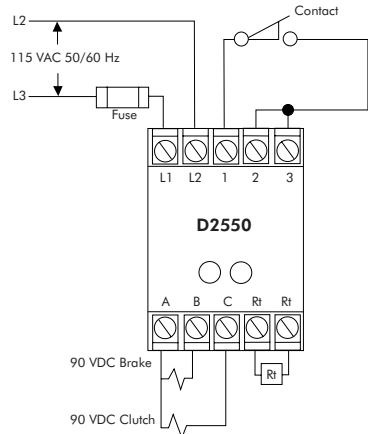Clutch/Brake Shaft RPM Curve using Dynacorp® Control with Anti-Overlap
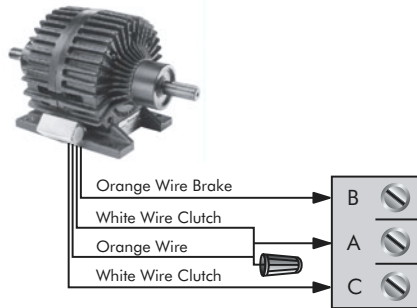
D2550 Wiring Information
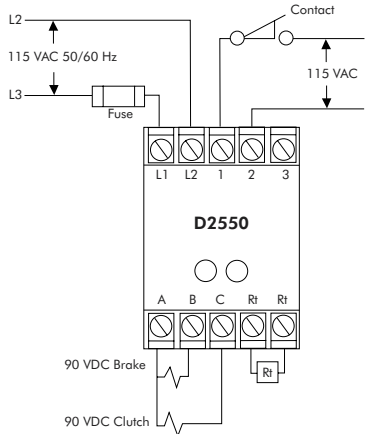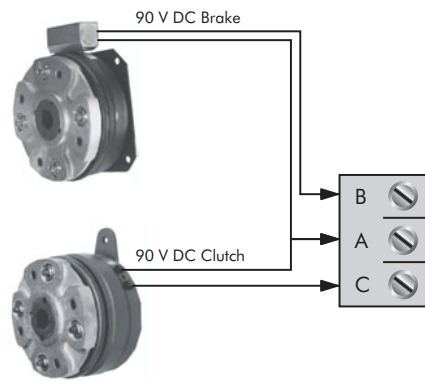
Wiring example for logic input 115 VAC

Wiring example for logic input 3-32 VDC

Wiring example for contact closures

Dynacorp® Clutch/Brake Package Wiring

Single Clutch and Brake Wiring