







iConnect.ECDC.15



A&D Technology's Dual-Loop Dyno Controller



+700 INSTALLED GLOBALLY

UPDATE YOUR OLD SYSTEM. REPLACE UNSUPPORTED HARDWARE.

A&D's Dual-Loop Dyno Controller can be a stand alone solution or fully integrated and includes:

Visualization module (HMI):

A large LCD touchscreen to set/display information for measurement & control.

Internal digital conditioning:

Speed & torque are directly conditioned by the control board (load cell & torque meter), which allows for accuracy and resolution to be maximized.

Available operating modes:

Several control modes (N/%, N/T, N/X, RLS, etc.) covering all kinds of applications from engine test bed to tandem dyno.

Available hybrid options:

0-10V Outputs to host DAQ feedback of speed, torque and power. 0-10V Inputs for set-point external definition (speed, torque, load...) Digital inputs/outputs for alarm signals

Highlights:

- Auto-switching between dynamic and static PIDs
- 19" Rackmount LCD touch panel
- Multiple communication options:
 - Modbus
 - EtherCAT
 - Discrete I/O
- Integrated power AMP
- Programmable I/O via Modbus
- On-board signal conditioning
- Easy throttle dyno control via encoder knobs

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Specifications

Speed Input

Single-Ended or Differential Encoder:

Level 0: 0.95V Maximum

Level 1: 1.9V Minimum 12V and 5V Excitation

Variable Reluctance Sensor (Mag Pickup):

Vp-p Minimum: 200mV Vp-p Maximum: 120V

Open Collector - NPN or PNP:

- Pull-Down resistance (1k Ω) to 0V for PNP Sensors used with 5V or 12V
- Pull-Up to 12V (1k Ω)
- Pull-Up to 5V $(1k\Omega)$
- 12V and 5V Excitation
- Excitation voltage is regulated and isolated
 - Max current for 12V: 350mA
 - Max Current for 5V: 800mA

EC Dyno Output

Power Amp:

- 15A Max 1,5,10,15A Resolution
- 400 VDC

Input Power:

- 230 VAC
- 50/60 Hz
- 13 Amps

Digital Input

Dry Contacts:

- Water pressure
- Water temp
- External shutdown

Digital Output

Dry Contacts:

- Starter
- **Brake Overspeed**
- Clutch
- **Null Speed**
- Motor Overspeed

Communication

- Standard ModBus
- Discrete (Optional)
- EtherCAT (Optional)

Torque Input

Load Cell Inputs:

- 5V Excitation
- 100mA Maximum current
- +/- 20mV full scale input



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