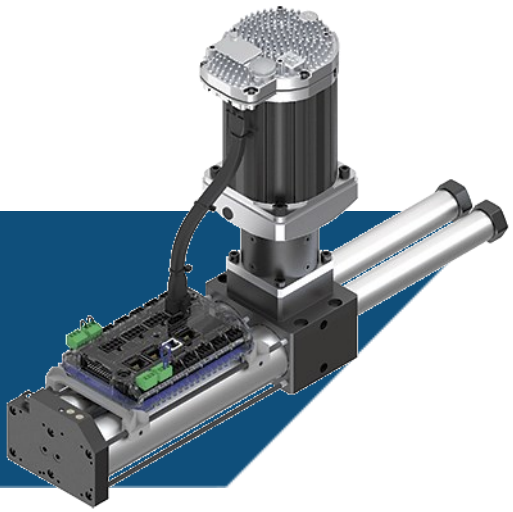
LDA

Solutions for Life

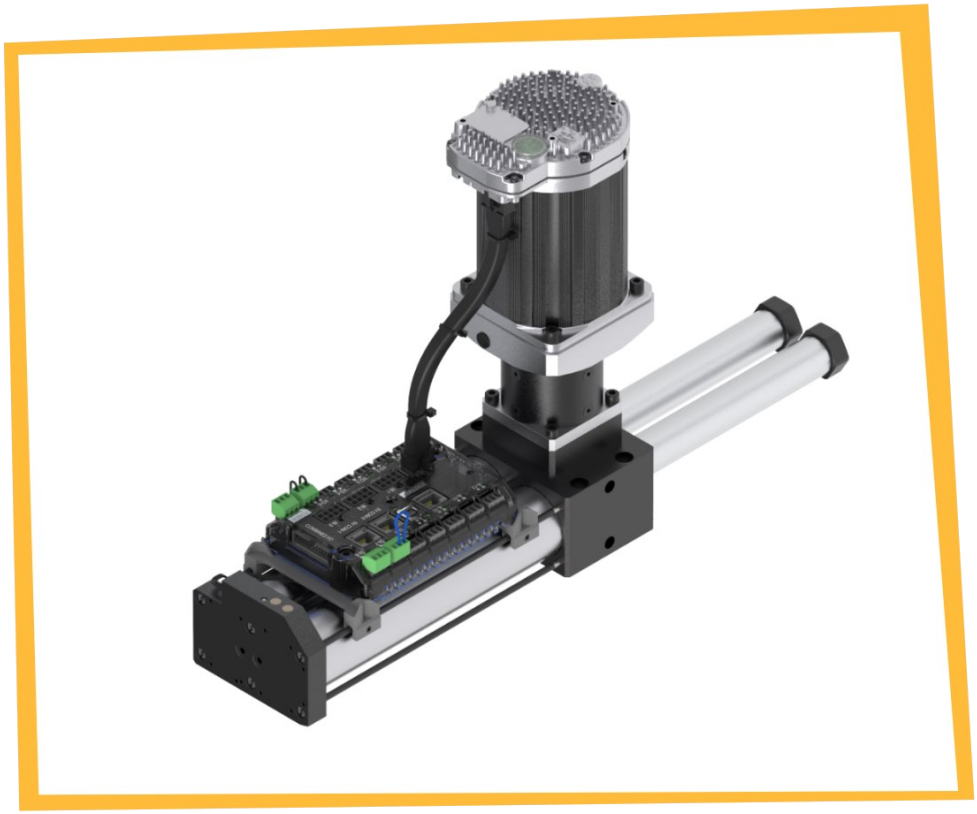
Remote Drive ERDP



Remote Drive

Overview

Series ERDP54 Remote Drive electrically powers pneumatic grippers, clamps, and short travel linear actuators, and devices, independent of factory air systems. Unlike a conventional pneumatic system, the remote drive and attached actuator(s) form a closed loop system with no air exhausted during operation.

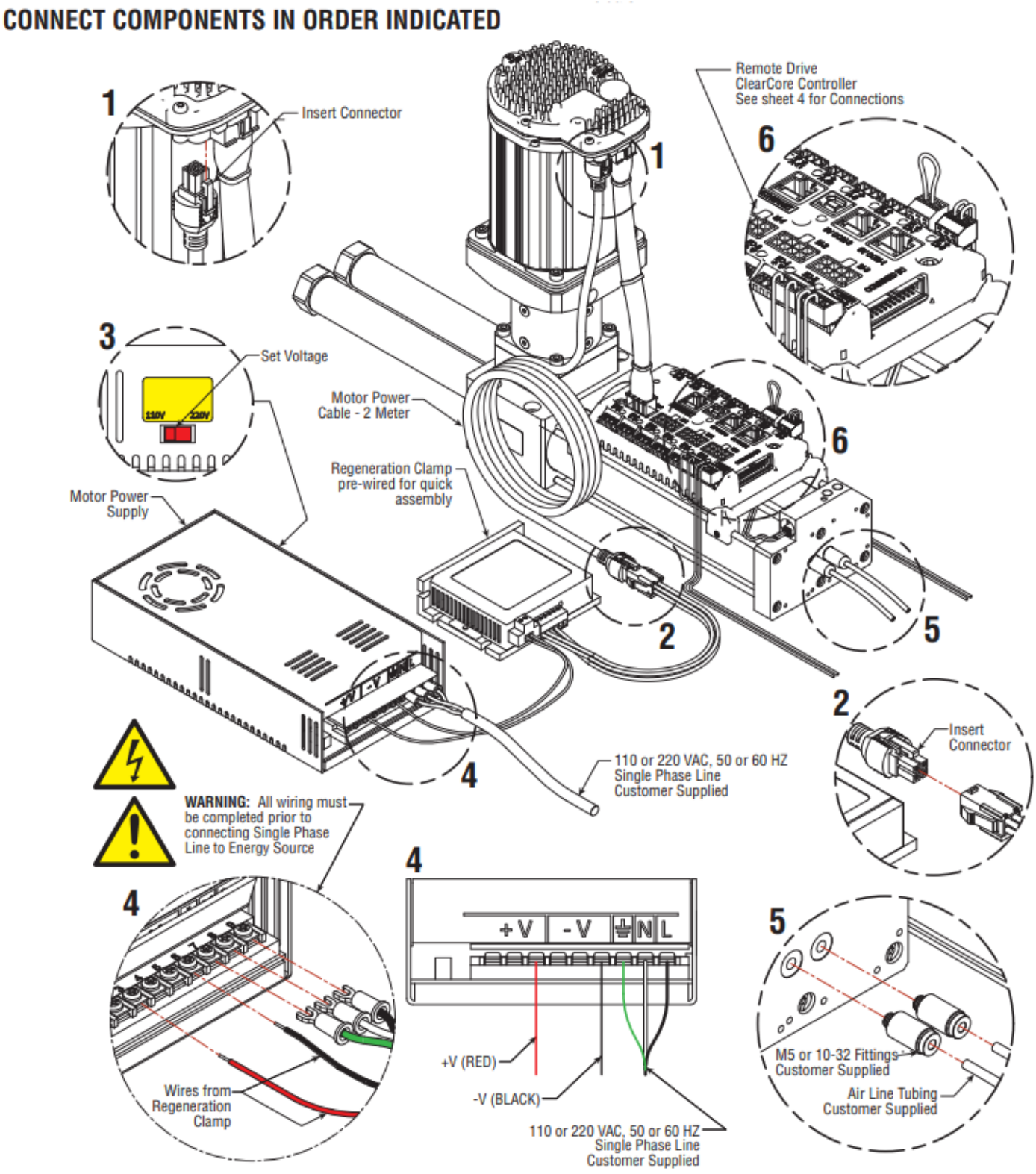


Advantages

- Significant energy savings
- Maintains force to pneumatic actuator
- Removes weight of motor from actuator
- Pneumatic actuators are compact, faster, and stronger
- Powers multiple pneumatic actuators at the same time
- Easy setup: No FRL or valves required
- Quiet operation

Operation

The force produced against the exhaust-side piston is redirected to assist in compressing the air on the compression side. The energy used to compress air on the compression side is then recovered during the subsequent expansion phase, improving overall efficiency. A two-piece piston opens during the expansion cycle to replace any air that may have leaked, ensuring consistent performance. The pneumatic actuators connect directly to the remote drive using standard pneumatic tubing, allowing for a straightforward setup. Additionally, the remote drive integrates seamlessly with your digital controls for precise and efficient operation.



Remote Drive

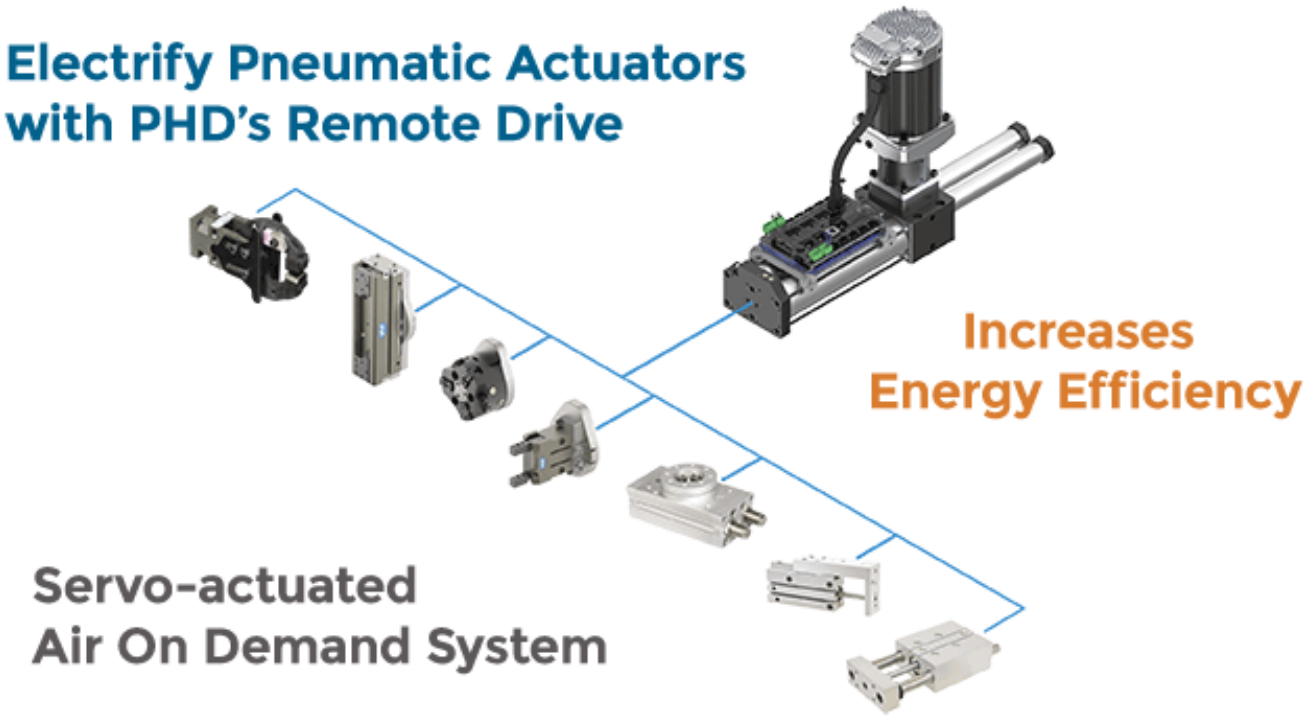
Appliances

Application Examples:

- Automated guided vehicles
- Welding cells
- Crossbar robotic feeding
- Medical and hospital equipment
- Packaging systems
- Robotic EOAT (End-of-Arm Tooling)
- Assembly cells
- Food processing

USES

- Provides an electric solution.
- Reduces energy consumption and carbon
- footprint.
- Supplies air where centrally produced
- compressed air is not available
- Provides quiet operation.
- Eliminates weight of a motor integral to
- the actuator (transfer bar and robot arm
- weight limitations).
- One motor powers multiple actuators.



Custom Solutions

- **Pump or Vacuum Generator Configuration**: The system can be tailored to function as either a pump or a vacuum generator, providing versatility for various industrial processes.
- **Size Variations**: Depending on specific needs, the ERDP Remote Drive can be scaled to larger or smaller sizes. For instance, PHD has developed a larger unit for an automotive manufacturer to drive multiple actuators on a substantial robotic arm.
- **Alternative Motor Mounting**: Custom motor mounting options are available to ensure seamless integration into different setups and spatial constraints.
- **Air Line Tube Cooling Accessory**: For applications requiring higher cycle rates, an optional bolt-on air line tube cooling accessory is offered to enhance performance and maintain optimal operating temperatures.
- **Multi-Actuator Drive Capability**: The system can be configured to drive multiple actuators simultaneously. By incorporating valves between the remote drive and actuators, sequential operation is also achievable.
- **Motor Brake Feature**: A motor brake can be integrated to maintain pressure on the driven actuator during power loss or emergency stops, ensuring safety and reliability.

ALTERNATE MOTOR MOUNTING

MULTIPLE ACTUATORS

ADDITIONAL SIZES

Data & Dimensions

Specification	ERDP54
Motor Power Supply (1)	480 W, 110/220 VAC, 50/60 Hz Input
Motor Controller Power Supply (2)	5 W Minimum, 24 VDC
Typical Noise Level	50 dB
Actuation Time (4)	380 mS Maximum
Weight	17.44 lb [7.91 kg]

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