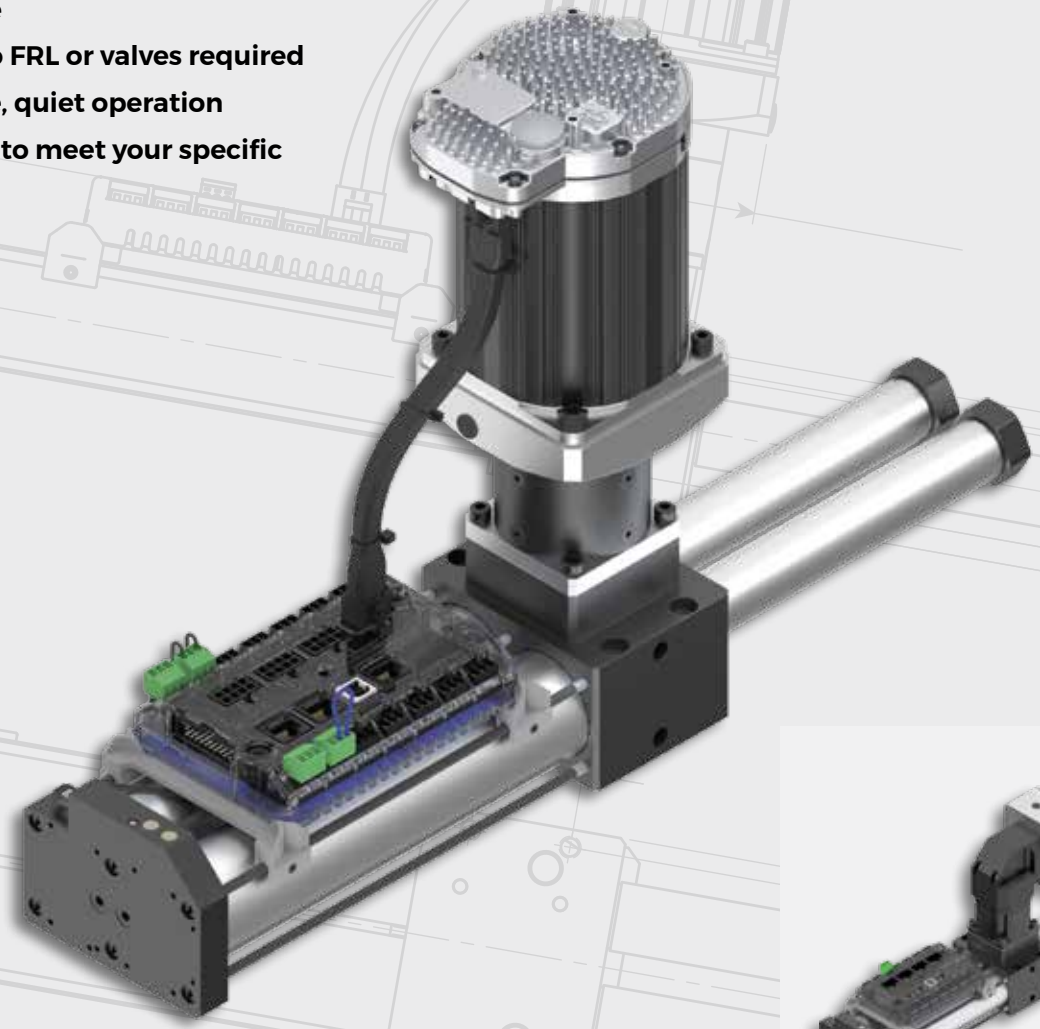
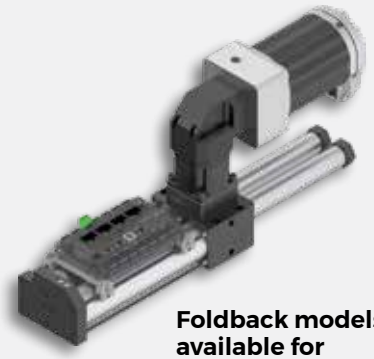
ERDP

Electrify Pneumatic Actuators with PHD's Remote Drive

- Increases energy efficiency
- Maintains force to pneumatic actuator
- Removes weight of motor from actuator
- Powers multiple pneumatic actuators at the same time
- Easy setup: No FRL or valves required
- Reduces noise, quiet operation
- Customizable to meet your specific application





Foldback models available for reduced footprint

Member of the MAC Distributor Network

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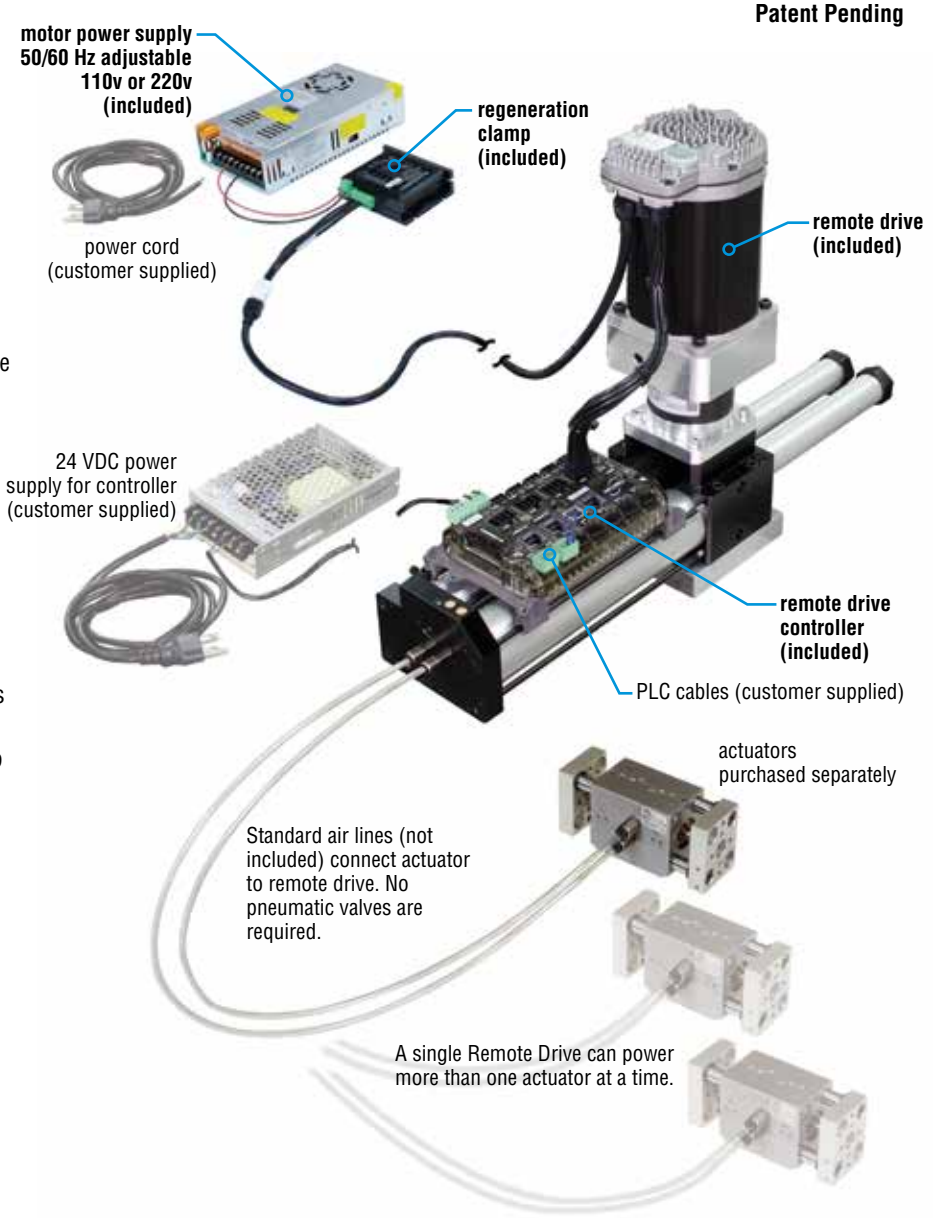
ERDP

Patent Pending



DESCRIPTION

- The PHD Remote Drive electrically powers pneumatic grippers, clamps, and short travel linear actuators, 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.

BENEFITS

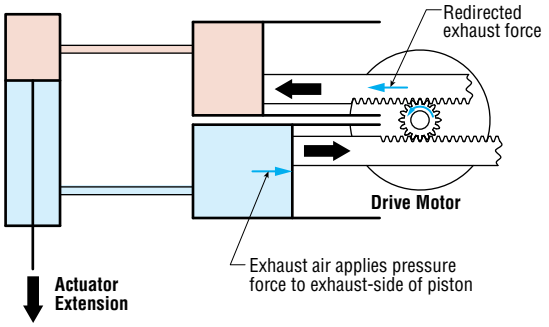
- Pneumatic actuator(s) is driven the same as a standard pneumatic valve.
- Powers appropriately sized actuator with up to 100 psi [7 bar] operating pressure.
- Programmed to emulate behavior of pneumatic actuator (i.e. grip - release).
- Motor brake can be added to reduce energy consumption during long gripping or clamping intervals. Contact PHD for more details.
- Consult PHD for other sizes and options.

OPERATION

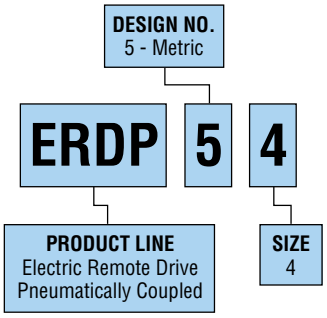
- Force produced against the exhaust-side piston is redirected to help compress the compression-side air.
- Energy expended to compress air on the compression side is recovered during subsequent expansion.
- Two-piece piston opens during the expansion cycle to replace air leaked.
- Pneumatic actuator(s) connects directly to the remote drive with standard pneumatic tubing.
- Remote drive connects to your digital controls.

Air waste is the greatest energy inefficiency in conventional pneumatic systems!

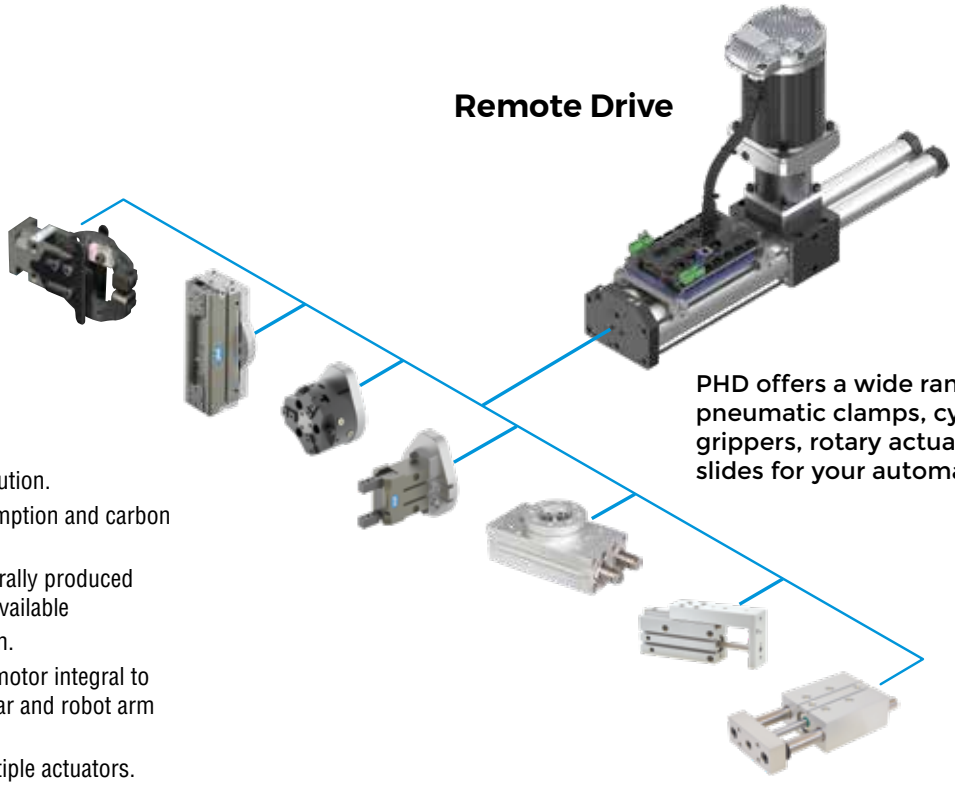
PHD's Remote Drive does not exhaust air!



ORDERING DATA



NOTE: Other sizes, options, and accessories available. Consult PHD.



PHD offers a wide range of pneumatic clamps, cylinders, grippers, rotary actuators, and slides for your automation needs.

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.

APPLICATION EXAMPLES

- Automated guided vehicles
- Welding cells
- Crossbar robotic feeding
- Medical / Hospitals
- Packaging
- Robotic EOAT
- Assembly cells
- Food processing

And many others

Consult PHD with your application needs.

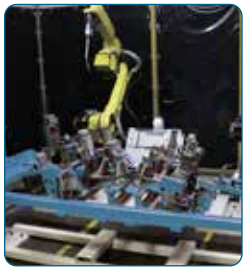

Warehouse


Assembly


Packaging


Crossbar Transfer


Medical


Weld Cells

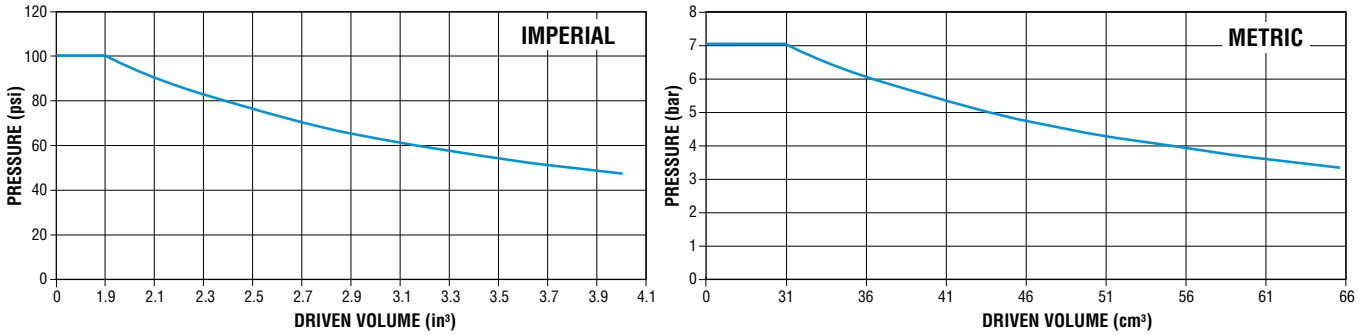
ENGINEERING DATA & DIMENSIONS: Model ERDP Remote Drive

SPECIFICATIONS	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]

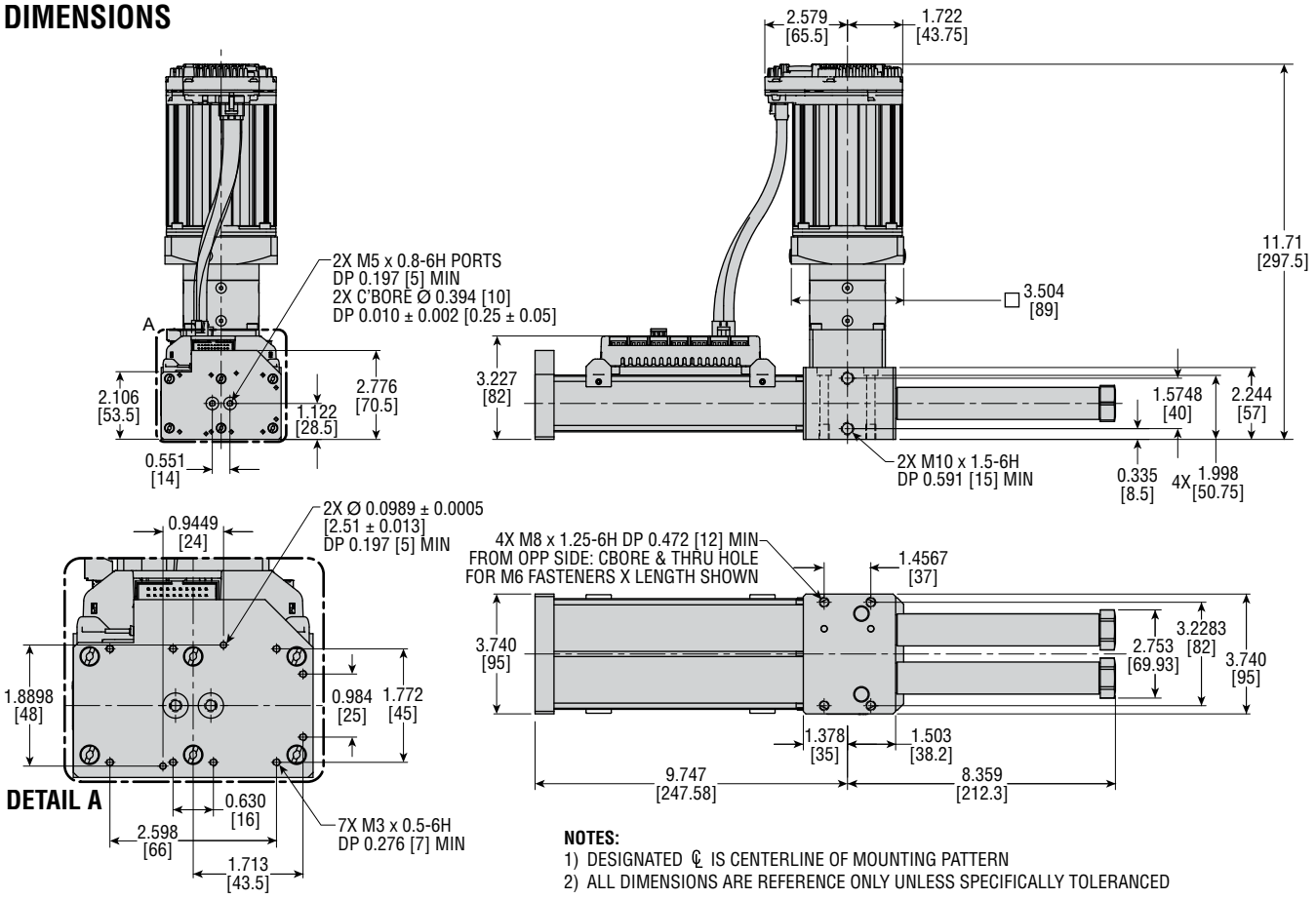
NOTES:
(1) Supplied with Remote Drive
(2) Supplied by customer
(3) Maximum capability of power supply; typical energy consumption in drive mode much lower and depending on application
(4) Time for driven actuator to open or close (grippers or clamps), extend or retract (linear cylinders), rotate (rotaries), or escape component (escapements)

ERDP PRESSURE VS. DRIVEN VOLUME

DRIVEN VOLUME = Actuator volume (one direction) + airline volume (one direction) + additional volumes
(example: valving placed between ERDP54 and multiple driven actuators)



DIMENSIONS



NOTES:
1) DESIGNATED ℄ IS CENTERLINE OF MOUNTING PATTERN
2) ALL DIMENSIONS ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED

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