R2D500/600 Solenoid Famillies

Dual action solenoids.

Single-minded performance.

The robust, industrial design of R2D500 & 600 solenoids offers high force, stroke and increased temperature insulation capability.

Trombetta®
MOTION TECHNOLOGIES
Strokes of Genius.

R2D500/600 Solenoids

R2D500/600 Solenoid Families

The R2D Families are Trombetta's dual action solenoids. This family combines the functionality of push and pull units in a single solenoid. The R2D500 & 600 Solenoids are used in switchgear, sorting, diverting, packaging equipment, pallet stops, cutting, holding, locking and clamping applications.

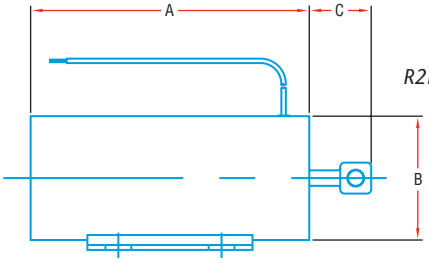
R2D500 & 600 Solenoids are available in a variety of base sizes. Trombetta can customize any product to meet specific customer requirements. R2D500 & 600 options include various voltages, insulation classes, mounting, rods, spring returns, connectors and surface finishes.

R2D516

R2D500 Solenoid Family

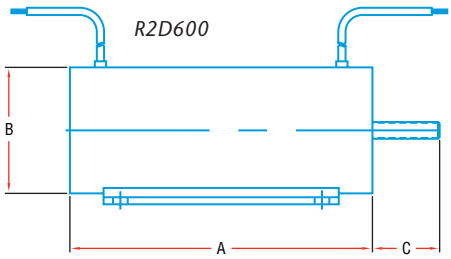
SERIES	STROKE (inches)	MAX. FORCE (lbs)	A inches [mm]	B inches [mm]	C inches [mm]
R2D514	1	60	4.50 [114.3]	2.25 [57.2]	Length
R2D515	1 1/2	100	4.90 [124.5]	2.63 [66.8]	variable
R2D516	1 3/4	150	6.80 [172.7]	3.00 [76.2]	for all
R2D517	2	200	7.20 [182.9]	3.50 [88.9]	models.
R2D518	2 1/2	250	13.20 [335.3]	4.75 [120.7]	

These are general dimensions and forces only. Trombetta can customize to meet your needs.



R2D500

When push comes to pull, we work for you.



R2D600

R2D610

R2D600 Solenoid Family

SERIES	STROKE (inches)	MAX. FORCE (lbs)	A inches [mm]	B inches [mm]	C inches [mm]
R2D608	3/4	8	4.40 [111.8]	1.38 [35.1]	Length
R2D610	1	15	4.50 [114.3]	1.63 [41.4]	variable
R2D612	1	25	4.50 [114.3]	1.88 [47.8]	for all
R2D613	1 1/2	20	5.00 [127.0]	2.00 [50.8]	models.

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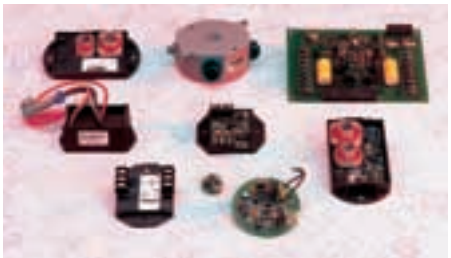

Trombetta's sample selection of electronic controls.

Trombetta Solenoid Controls

Trombetta Electronic Controls regulate the magnitude of electrical drive applied to the coil during the pull-in/push out and/or hold operation of the solenoid to optimize the performance of the solenoid. Using solenoid controls can show the benefit of employing smaller solenoids, maximizing space use and allowing for either AC or DC power usage.

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For more information, visit our website at www.trombetta.com.

Trombetta® MOTION TECHNOLOGIES
Strokes of Genius.

TROMBETTA'S DUAL-ACTION ELECTRIC SOLENOIDS...

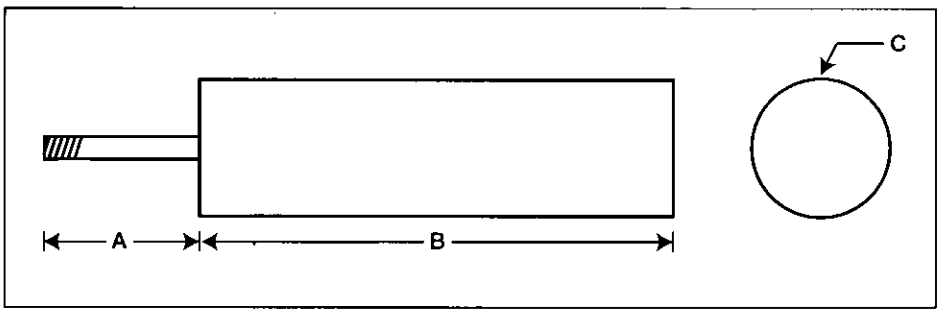
THE ANSWER TO HYDRAULIC/ PNEUMATIC SHORTCOMINGS

R2D500 Features/Applications

Trombetta Dual-Action Solenoids are heavy duty, industrial rated actuators suitable for a wide range of push-pull applications. They offer an all-electric alternative to hydraulic and pneumatic cylinders.

- No piping, pumps, compressors, regulators, filters or leaks.
- Many models...diameters from 2-1/4" to 3-1/2".
- Strokes from 1/4" to over 3" (customized to your application).
- Forces to over 240 pounds.
- Long life — up to 50,000,000 cycles possible.
- Wide voltage range available.
- Custom-designed to suit your application.
- Optional interface/control electronics to meet your exact requirements.

R2D500 Series Dimension Table



All R2D500 Series solenoids are custom-designed to suit your application

APPROXIMATE DIMENSIONS*			
MODEL	**A****	**B**	**C (dia.)**
R2D514	1/4 TO 1 1/2	6	2 1/4
R2D515	1/4 TO 2	7 1/4	2 5/8
R2D516	1/4 TO 2 1/2	8 5/8	3
R2D517	1/4 TO 3	10 1/8	3 1/2

* All dimensions are in inches. All dimensions are approximate. They may vary based on application requirements.

** Dimension "A" is dependent upon the stroke required. It must also be increased by the length of any needed extension to connect to the application.

Dimensions of mounting brackets (not shown) are omitted due to the wide variety of available bracket designs and mounting configurations.

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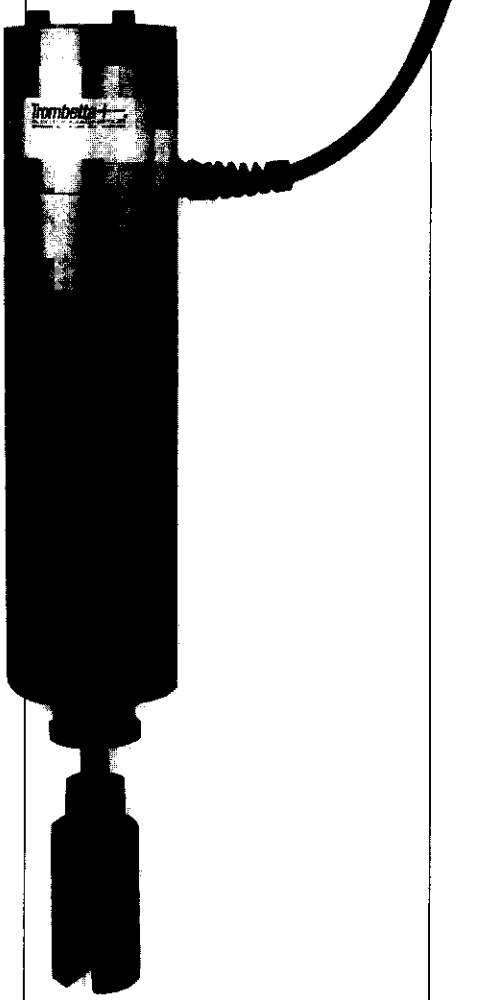
Trombetta R2D500 SERIES DUAL-ACTION Solenoids



Trombetta solenoid products have been designed and manufactured in the U.S.A. since 1932.

See Trombetta first for long-lasting tough-duty solenoids to fit the toughest – or easiest – applications.

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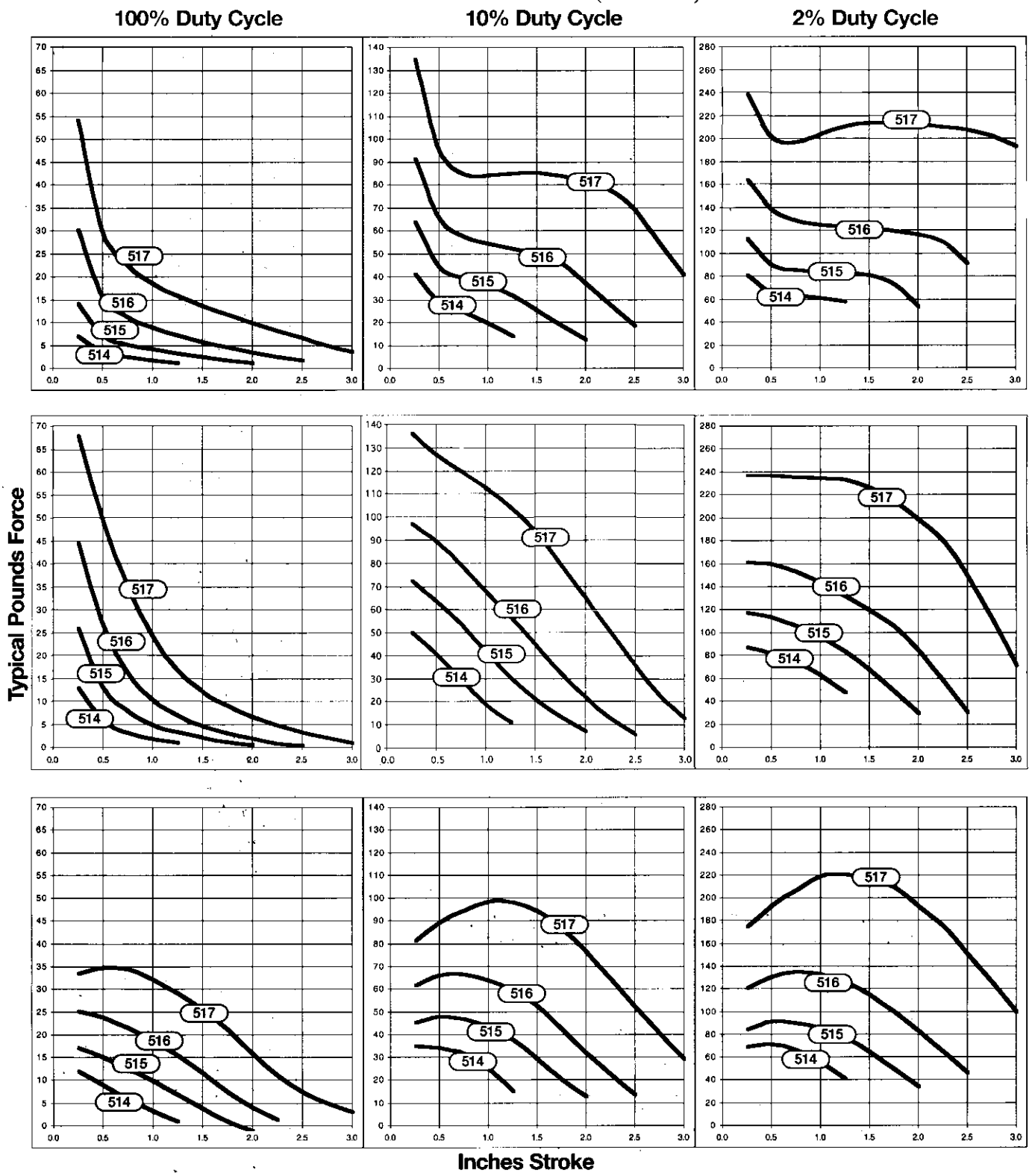
Trombetta R2D500 SERIES DUAL-ACTION Solenoids

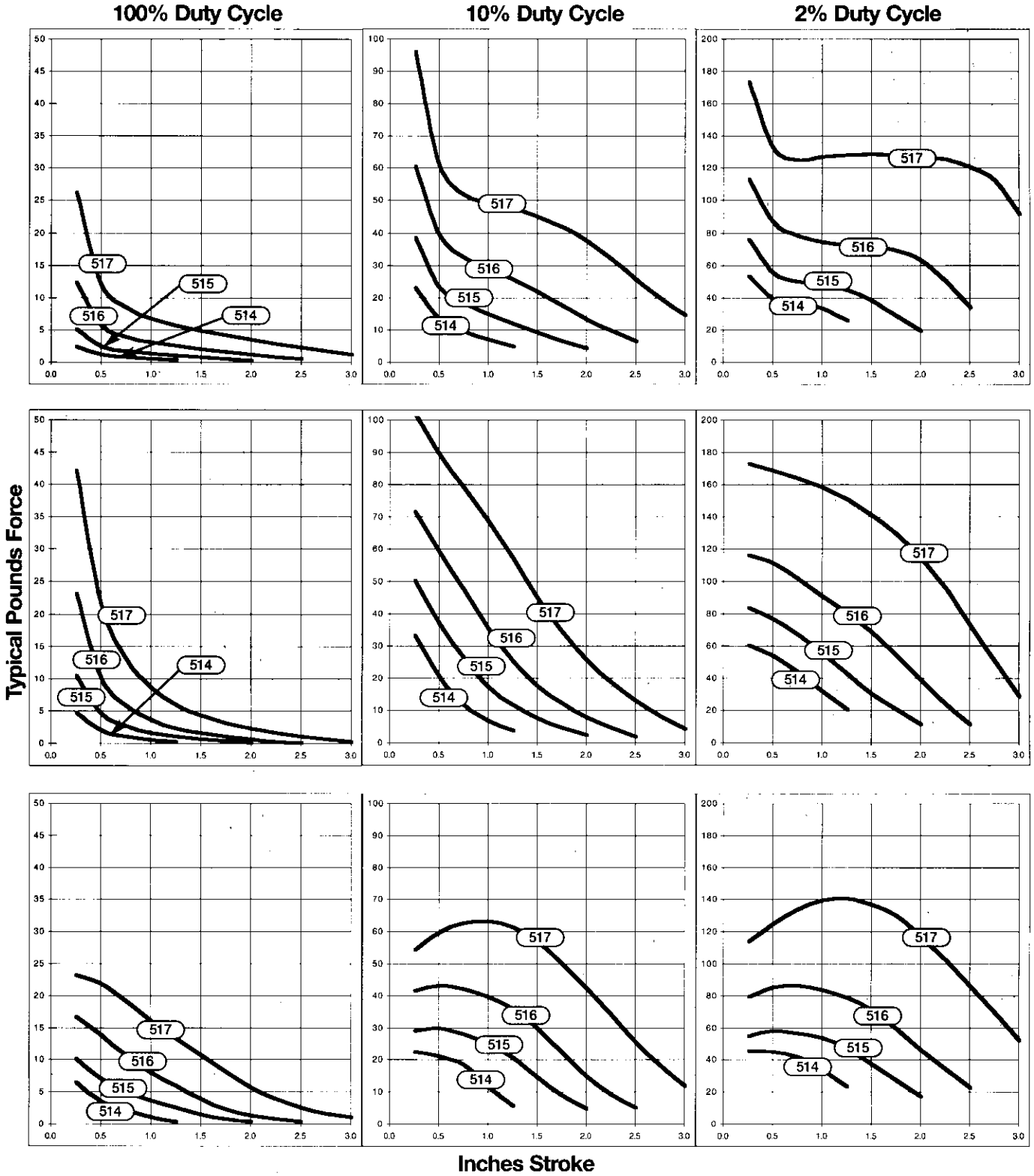
Force vs Stroke Curves (Cold Coil)



- Use the "Cold Coil" curves if your solenoid will be energized infrequently such as in door unlatching or transfer switch applications.
- Use the "Hot Coil" curves if your solenoid will perform work on a regular, continuous basis such as in packaging or assembly machine applications.
- Use the "2% Duty Cycle" curves if your application requires energizing the solenoid for periods of 2% ON-Time and 98% OFF-Time and where the 2% ON-Time does not exceed 30 seconds.
- Use the "10% Duty Cycle" curves if your application requires energizing the solenoid for periods of 10% ON-Time and 90% OFF-Time and where the 10% ON-Time does not exceed 2 minutes.
- If you require the high force capability of the "2% Duty Cycle" curves for repetitive operations exceeding the above guidelines, Trombetta can provide electronic solenoid controllers to accomplish this.

Trombetta R2D500 SERIES DUAL-ACTION Solenoids

Force vs Stroke Curves (Hot Coil)



• **Type A** curves are representative of solenoids optimized for maximum stroke lengths. They are suitable for applications where the load is relatively constant over the entire stroke length. • **Type B** curves are representative of solenoids optimized for handling loads that increase throughout the stroke length such as spring loads. • **Type C** curves are representative of solenoids optimized for handling loads that are at their maximum value at an intermediate stroke length. They are suitable for applications involving cam action or over-center toggle mechanisms.

Solenoids can be designed to handle specific requirements in addition to the versions described above.

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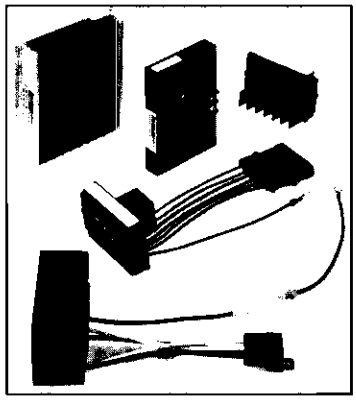
ELECTROMAGNETICS

Solenoid control modules solve actuator application problems.



Trombetta also offers a series of electronic Solenoid Control Modules which provide customized control functions for actuators. Field proven, these rugged Control Modules expand the function and extend the life of electric solenoids in the most challenging applications. They eliminate the need for external relays or other logic hardware.

Trombetta Control Modules offer the following to enhance actuator performance:

- Timing and logic functions.
- High power pull-in and low power hold-in solenoid operation.
- Prevention of solenoid coil burn-out.
- Elimination of elaborate wiring and costly relays. Modules allow use of 3-wire (2 coil) solenoids in 2-wire systems, and will upgrade applications that previously required internally switched solenoids.
- Remote control of solenoids via light gage wiring and low-level control signals.

Trombetta can develop custom Control Modules to suit your specific application requirements.

Trombetta... Specializing In Innovative Solutions For Your Electromagnetic Needs

See Trombetta first for a wide variety of ultra-reliable push-pull solenoids, electronic control modules, throttle control kits and solenoid linkage accessories.

As a leading supplier to industry for over 60 years, Trombetta offers design and application expertise for standard or custom solenoid products for hundreds of applications. Here are just a few:

- Automotive Applications
- Diesel Engine Shut-down and Throttle Control
- Transportation Equipment
- Packaging Machinery
- Factory Automation Systems
- Material Handling Machinery
- Food Processing Equipment
- Medical Equipment
- Security Systems
- Construction Equipment
- Agriculture Equipment
- Military Defense Equipment
- Electrical Switchgear
- Marine Equipment

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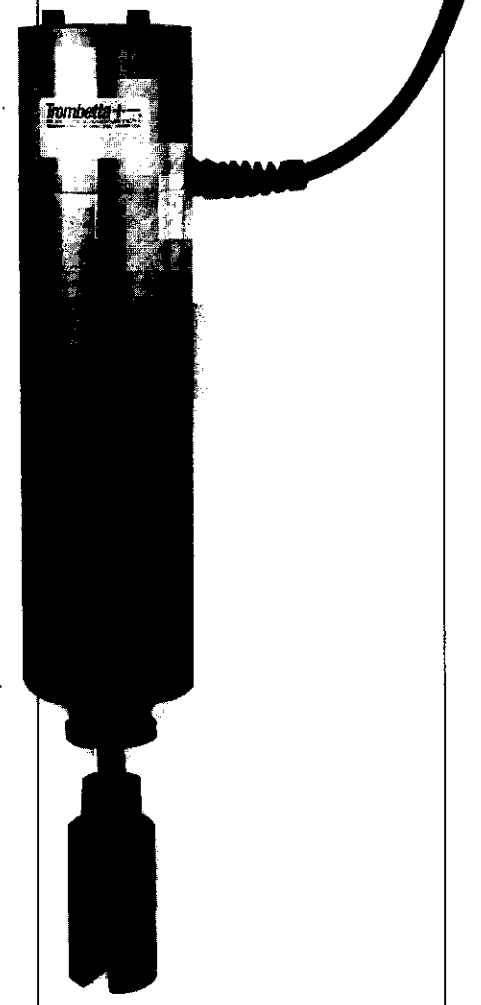
Trombetta R2D500 SERIES DUAL-ACTION Solenoids



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No implied warranty is intended. All information is subject to change without notice. Contact factory for complete installation and wiring instructions.