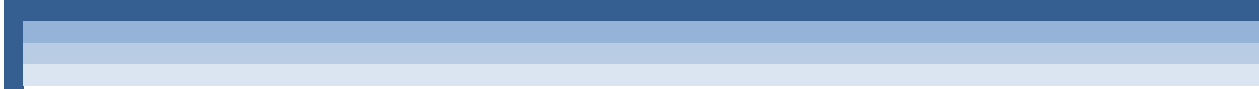




Manual 36589

Solenoid Selection Guide



Solenoid Selection Guide

A guide to help you in the selection of Woodward's wide range of dual-coil solenoids



Woodward's innovative designs and advanced engineering technology provide distinct performance advantages:

- Dual coil design provides both a high and low resistance coil for continuous operation in the widest ambient temperature range
- Dual-coil solenoids pack more power in a smaller space than single coil solenoids
- Coils are potted on select models, sealing the entire unit for long, reliable service under extreme dirt and moisture conditions
- Plated steel housings and mounting brackets are corrosion resistant
- High temperature magnet wire insulation
- Hard chrome plated plunger for smooth, reliable, wear-resistant operation
- Brass plunger bore sleeve
- 100% inspected and factory tested

The true tests of solenoid excellence:

Vibration test:	15 to 2000 Hz @ 15 G's, 3 planes
Thermal cycling test:	-40°F to +250°F (-40°C to +121°C), 2 hours at each temperature with one hour transition, 25 cycles
Heat soak test:	3 hours @ 250°F (121°C) at 120% rated voltage
Shock test:	200 G's peak @ 21 Hz for 300 hours

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Solenoid Overview Chart:

Dual Coil Model No.*	Direction		Pull or Push Force	Hold Force	Stroke	Page No.
	Pull	Push				
1502	√		10 lbs (44 N)	24 lbs (107 N)	1" (25.4 mm)	16
1502ES	√		10 lbs (44 N)	28 lbs (125 N)	1" (25.4 mm)	16
1504	√		12 lbs (53 N)	19 lbs (85 N)	1" (25.4 mm)	16
1751	√		24 lbs (107 N)	38 lbs (169 N)	1" (25.4 mm)	18
1751ES	√		25 lbs (111 N)	41 lbs (182 N)	1" (25.4 mm)	18
1753	√		19 lbs (85 N)	42 lbs (187 N)	1" (25.4 mm)	18
1753ES	√		20 lbs (89 N)	43 lbs (191 N)	1" (25.4 mm)	18
1756ES		√	26 lbs (116 N)	35 lbs (156 N)	1" (25.4 mm)	20
1756ESDB		√	20 lbs (89 N)	35 lbs (156 N)	1" (25.4 mm)	20
1757ES		√	20 lbs (89 N)	37 lbs (165 N)	1" (25.4 mm)	20
1757ESDB		√	16 lbs (71 N)	37 lbs (165 N)	1" (25.4 mm)	20
2001	√		21 lbs (93 N)	49 lbs (218 N)	1" (25.4 mm)	22
2001ES	√		22 lbs (98 N)	43 lbs (191 N)	1" (25.4 mm)	22
2003	√		26 lbs (116 N)	51 lbs (227 N)	1" (25.4 mm)	22
2003ES	√		29 lbs (129 N)	41 lbs (182 N)	1" (25.4 mm)	22
2370	√		37 lbs (165 N)	88 lbs (391 N)	1.5" (38.1 mm)	24
2370ES	√		39 lbs (173 N)	92 lbs (409 N)	1.5" (38.1 mm)	24
Cable Solenoid	√		29 lbs (129 N)	41 lbs (182 N)	0.96" (24.5 mm)	26

*All 12 Vdc/24 Vdc except where noted

We appreciate your comments about the content of our publications.

Send comments to: icinfo@woodward.com

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