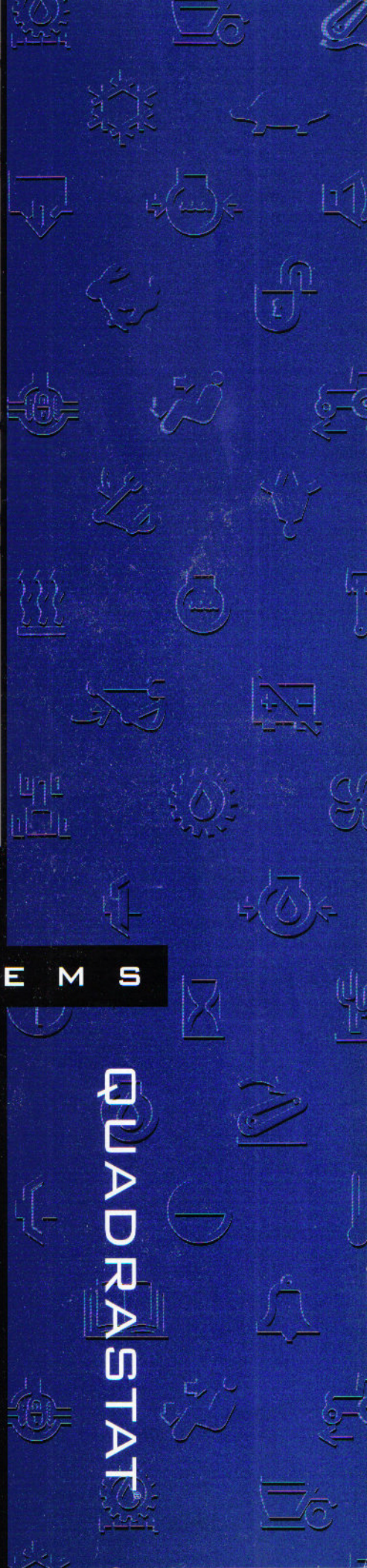


LEVER SYSTEMS

FOR HYDRAULIC SPOOL VALVES

A SUBSIDIARY OF ADAMS RITE MANUFACTURING CO.

QUADRASTAT





QUADRASTAT CORP.
A SUBSIDIARY OF ADAMS RITE MANUFACTURING CO.

Quadrastat Corp. specializes in the design and manufacturing of manual remote control systems and components. Our commitment to customer satisfaction drives us to produce quality products that perform.

The QUADRASTAT® Product Line includes:

- QUADRASTAT® Self Locking Controls for engine throttle and variable displacement pumps and motors.
- Transmission Shift Controls for automatic, powershift and hydrostatic transmissions.
- Lever Controls, Single Axis and Joystick, for hydraulic control valves.

Our business is to provide you with reliable, well-designed products for specific control applications. We are continuously developing options, adaptations and modifications to our core components to increase their range of performance. If a standard product or its modification will not fulfill your requirements, our design team will work with you to develop a customized solution to keep you in control.



Joystick with center lock and switch knob



Specific function handle with head to accommodate a selection of switches

This catalog highlights our line of Lever Controls for the remote operation of Directional Control Hydraulic Spool Valves. These controls are intended for use with Push-Pull control cables and mechanical linkages. The products are:

■ QUADCO® Grip

Provides a means of adding electrical switches to the controls.

■ C60 Series Joystick Controls

Provides two-function control with one lever.

■ C80 Series Lever Controls

Provides single-function control.

■ C400/C600 Series Valve Adaptors

Provides an enclosed cable connection at the valve.

For many applications, one of our standard products will provide an excellent solution. When a new product is required, we will work with you whether it be a simple adjustment or a completely new design:

- Bend a lever, change a knob or add a color.
- Add a motion restrictor, add a detent or add a position hold feature.
- Change a centering spring force or create a special spring.
- Utilize specific cable adaptors, fittings or anchors.
- Add logos or other identification.
- Add push button switches - momentary or alternate action - to the top and/or side of a lever.
- Add rocker switches, detented or centered, to the top of a lever.
- Incorporate a potentiometer for thumb operation.
- Design a proprietary control from your specifications.

The QUADCO® Grip provides a convenient means of adding electrical features to mechanical levers.

STANDARD FEATURES

- Super Tough Nylon 66 Body for Structural Integrity and Solid Feel
- Neoprene Cap
- Hex Anti-Rotation Block with 1/2-13 Lock Nut
- Cross Linked Polyethylene Insulated 18ga. Stranded Wire (SAE J1560 Type TXL)
- Weather Resistant Switches

OPTIONS

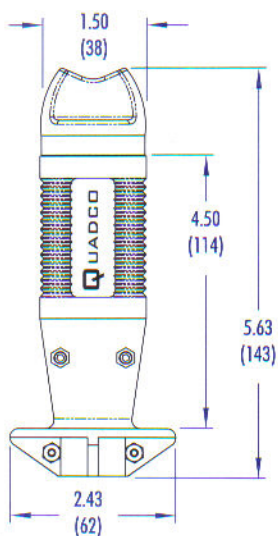
- Grip Only - No Switches
- Rocker Switch - Momentary Action
- Detent One Side
- Detent Both Sides
- Top Push Button - Momentary Contact
- Alternate Action
- Side Push Button - Momentary Contact
- Alternate Action
- Combination Top and Side Switches
- Waterproof Push Button Switches
- Enable (Safety) Switch
- Adaptors
- Your Logo or other Identification



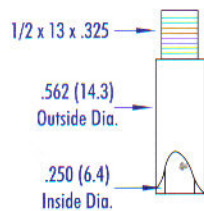
Rocker Switch with Cover



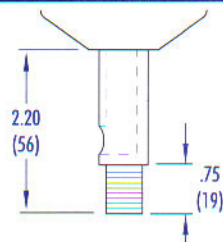
Grip with Enable Switch



SHAFT DIM.-STANDARD GRIP



ADAPTOR DIMENSIONS



DIMENSIONS
Inches & (Millimeters)

PART NO./ORDERING SYSTEM

TOP SWITCH	3 = Rocker Switch (No Detents)
0 = None	4 = Rocker Switch (Detent One Side)
1 = Momentary Contact (Weatherproof)	6 = Momentary Contact (Waterproof)
2 = Alternate Action (Weatherproof)	7 = Alternate Action (Waterproof)
	8 = Rocker Switch (Detent Both Sides)

G O O O

SIDE SWITCH
0 = None
1 = Momentary Contact (Weatherproof)
2 = Momentary Contact (Waterproof)
3 = Alternate Action (Weatherproof)
4 = Alternate Action (Waterproof)

WIRING HARNESS
0 = None
1 = Length 30 in. 18ga X-Linked Polyethylene
2 = Adaptor 3/8-16 with Harness
3 = Adaptor 10M with Harness
4 = Adaptor 1/2-13 with Harness
5 = Adaptor 12M with Harness

JOYSTICK CONTROL SYSTEMS

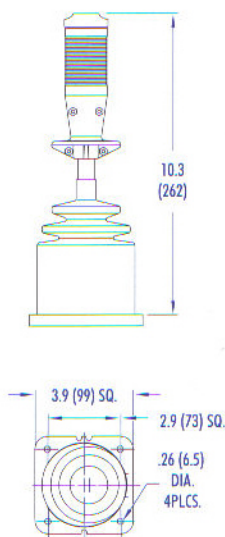
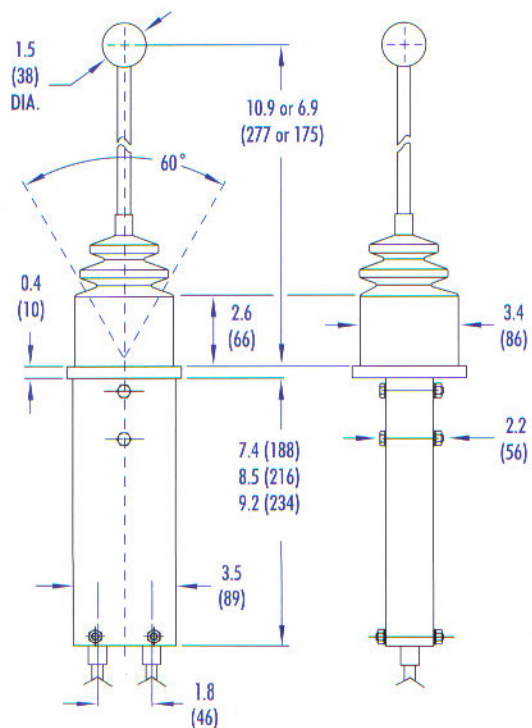
The C60 Series Joystick provides an integrated package for the control of two sections with one lever.

STANDARD FEATURES

- ± 0.50 inch (± 12.7 mm) Output Stroke
- Symmetrical $\pm 30^\circ$ Input Motion
- Either "+" or "X" Axis Orientation by Rotating Installation
- Centering Springs - each Output
- Working loads up to 100 lbs. (445N) on each Output
- C61 Series Push-Pull Cable, Standard 2 inch Output Stroke (42C, 32B, or 62B Types)
- C62 series intended for Rod Linkage Outputs
- Neutral Lock
2 or 3 positions

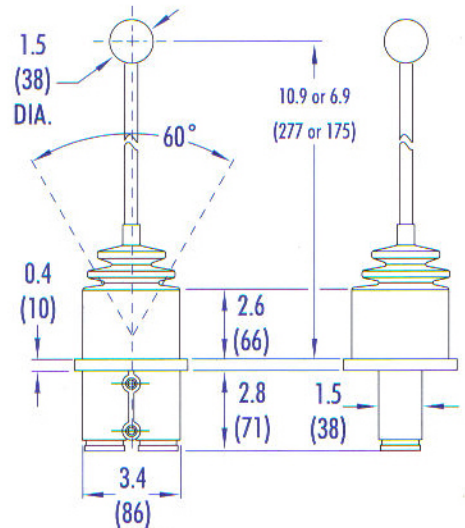


C61 - PUSH-PULL CABLE



DIMENSIONS
Inches & (Millimeters)

C62 - ROD LINKAGE



OPTIONS

- Grip - with electrical switches (see page 3)
- 1 inch Stroke Cable for installations having minimal cable bends and appropriately short stroke requirements
- Lock to prevent inadvertent motion of the outputs
- Input motion restrictor
- Bent input levers to place the lever in a convenient position for the vehicle operator



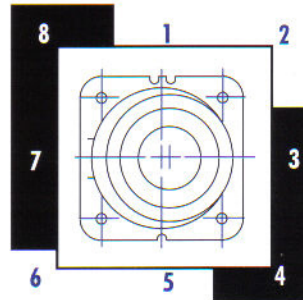
Motion Restrictor Plate



Optional Grip - shown with push button switch

PERFORMANCE DATA

Lever Position	Output Motion		Geometric Advantage <small>(with 10.9" Lever)</small>
	A	B	
1	PULL	PUSH	8.8:1
2	PULL	-	6.6:1
3	PULL	PULL	8.8:1
4	-	PULL	6.6:1
5	PUSH	PULL	8.8:1
6	PUSH	-	6.6:1
7	PUSH	PUSH	8.8:1
8	-	PUSH	6.6:1

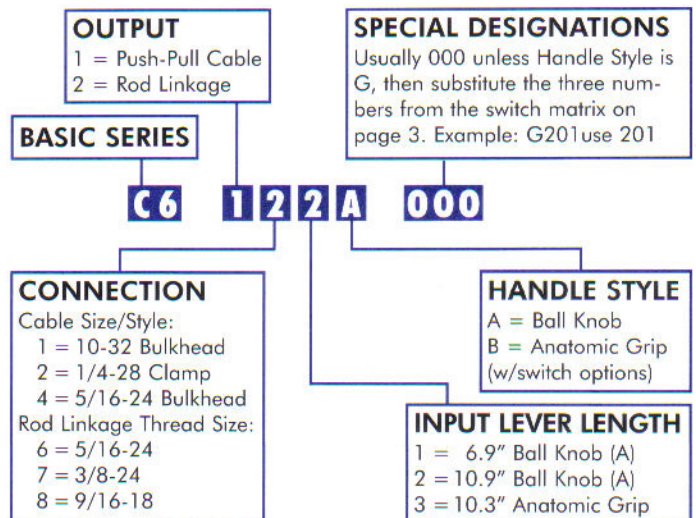


**Center Position Lock
2 or 3 Positions**

SPECIFICATIONS

- OUTPUT STROKE** - 0 to ± 0.50 inches (12.7mm)
- WORKING LOADS** - Up to 100lbs. (445N)
Each Output
- INPUT MOTION** - 0 to +30° All Directions
- MATERIALS:**
- TOP BOOT - Molded EPDM
 - BODY - Nylon 901
 - SLIDERS - Steel
 - LEVER - Steel

PART NO./ORDERING SYSTEM

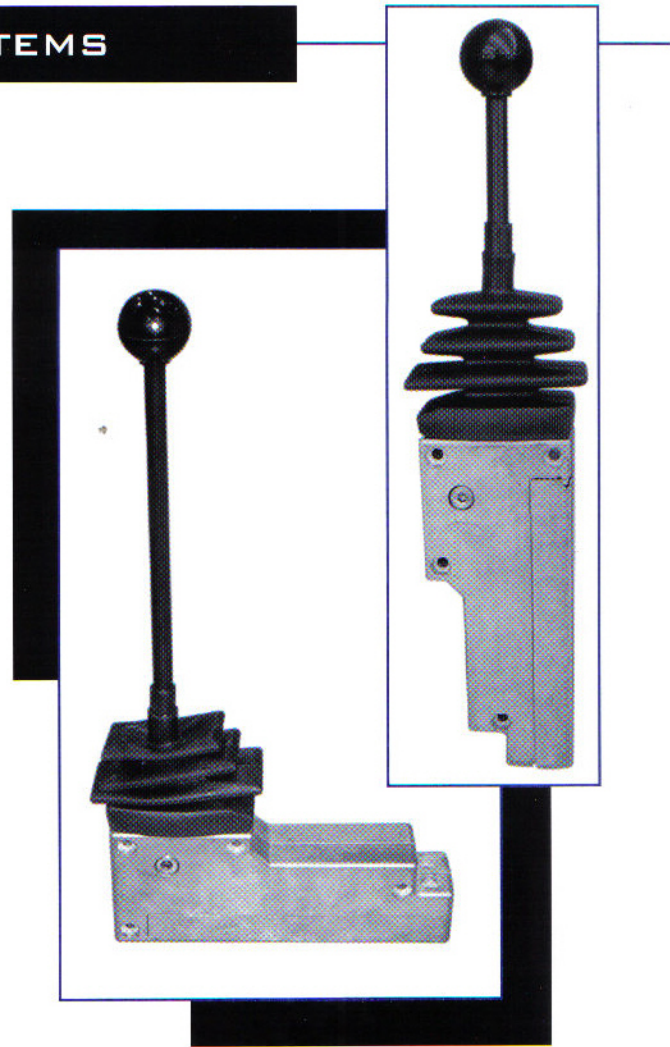


MODULAR VALVE CONTROL SYSTEMS

The C80 Series Remote Valve Control provides a Heavy duty Lever for stroking hydraulic spool valves, winch valves or transmission valves.

STANDARD FEATURES

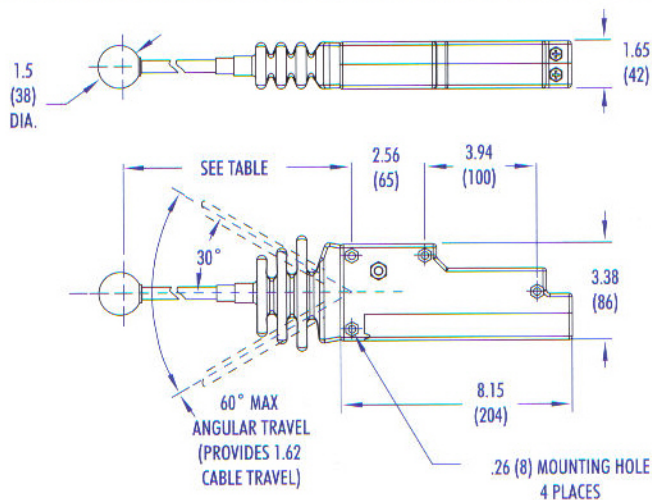
- ± 0.81 inch (± 20 mm) Output Stroke
- Maximum Working Load:
 - 1/4-28 End Rod Cable - 100 lbs (445N)
 - 5/16-24 End Rod Cable - 200 lbs (890N)
- Pre-Loaded Center Return spring
- Symmetrical Lever Action; $\pm 30^\circ$ Maximum Lever on Mounting Center Line
- Enclosed assembly, Zinc Die Cast Body
- Uses Standard Configuration, Push-Pull cable - Clamp Type, 2 inch Output Stroke, either 1/4-28 or 5/16-24 End Rod



CENTERING FORCE LBS. (N)

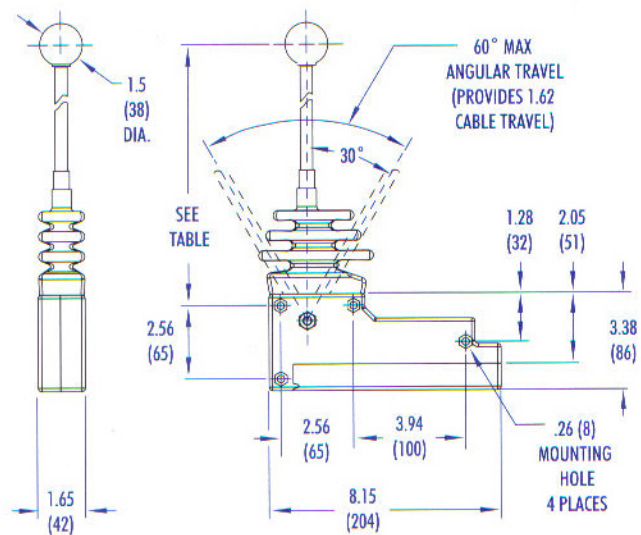
0 Travel	1/2 Travel	Full Travel
11 lbs. (49N)	13 lbs. (58N)	15 lbs. (67N)

C85 - IN LINE CONTROL



LEVER LENGTH	DIMENSION INCHES (mm)	MECHANICAL ADVANTAGE
1	8.13 (207)	5.5:1
2	11.38 (289)	7.5:1
3	14.63 (372)	9.5:1
G*	8.50 (216)	5.8:1

C84 - RIGHT ANGLE CONTROL



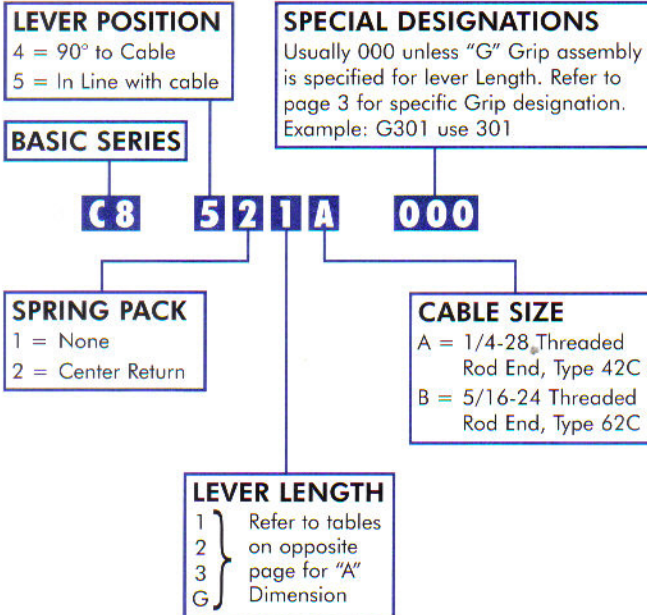
LEVER LENGTH	DIMENSION INCHES (mm)	MECHANICAL ADVANTAGE
1	9.15 (232)	5.5:1
2	12.40 (315)	7.5:1
3	14.65 (398)	9.5:1
G*	9.60 (244)	6.2:1

OPTIONS

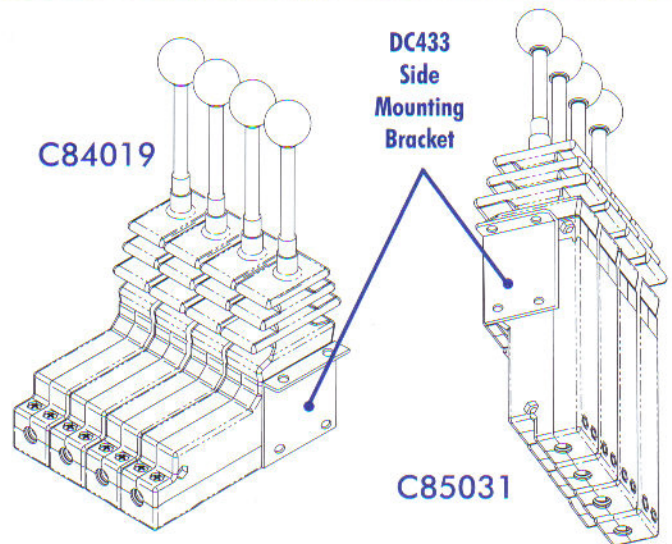
- Inline (C85) or Right Angle (C84) Output Stroke
- 3 Standard Lever Lengths
- Grip with Electrical Switches
- Center Position Lock with Pull-Up Knob Release
- Fore and Aft Position Lock with Pull-up Knob Release (C84 only)
- No Centering Spring:
0 to 1.62 inch (41 mm) Output Stroke
- Biased Return Spring:
0 to 1.62 inch (41 mm) Output Stroke - Pulling Cable (Spring pulls Cable toward zero)
- Bent Input Levers
- Stacked Control Assemblies



PART NO./ORDERING SYSTEM



MULTILEVER ASSEMBLIES



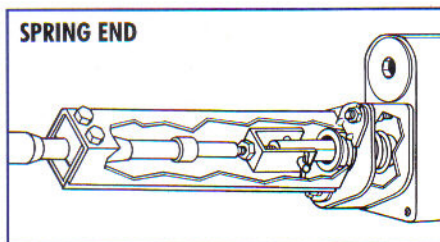
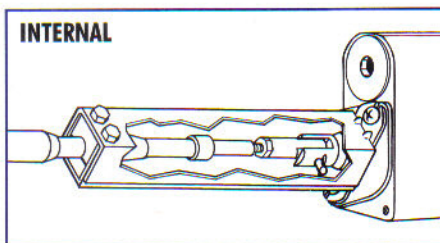
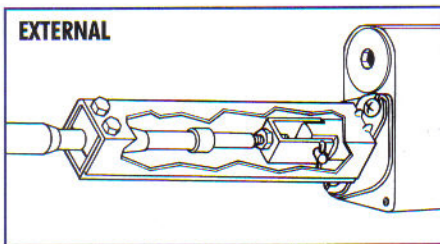
STYLE	MULTILEVER PACKAGES			
	2 Lever	3 Lever	4 Lever	5 Lever
C85	C85035	C85030	C85031	C85037
C84	C84020	C84018	C84019	—

Levers - Dash 2 for 7.5:1 Advantage, Spring Centered.
Knob Spacing - 2.00 (50 mm) between Centers, 0.5 (12.6 mm) gap. Cables - 5/6-24, 2 inch.

VALVE ADAPTOR KITS

Valve adaptor kits provide a means of attaching the control cable to the valve. The adaptor also provides physical protection to the valve spool and cable end rod.

Adaptors are designated as Internal Clevis, External Clevis or Spring End, depending on the means of attachment to the spool.



SPECIFICATIONS

CABLE

Standard 2 inch Output Stroke Push-Pull, Clamp Type Grooved Conduit (Clamp) Cable

MATERIAL

Housing - Zinc Plated Steel
Clamps - Zinc Die Cast
Hardware - Zinc Plated

HARDWARE

Includes Clevis and all Associated Hardware

MAKE	MODEL	QUADRASTAT PART NUMBER		CLEVIS STYLE	LENGTH IN INCHES	
		CABLE SIZE			C4 KIT	C6 KIT
		1/4-28	5/16-24			
BRAND	A0775 ST2	C455	----	External	8.22	---
		C455	----	External	8.22	---
COMMER- CIAL INTERTEC	VA-20	C410	C610	Spring End	8.90	8.90
	VA-20	C432	C632	External	7.70	8.05
	VA-35	C419	C619	Spring End	8.75	8.75
	KA-18	C481	C681	External	8.05	8.40
CROSS	CV	C403	C603	External	7.70	8.05
	CA	C402	C602	External	7.70	8.05
	CD	C402	C602	External	7.70	8.05
	BA	C482	C682	Spring End	8.65	8.65
ENERGY	CVA200	C404	C604	Internal	8.05	8.40
	CVP	C405	C605	Internal	8.05	8.40
	CVSD	C404	C604	Internal	8.05	8.40
DANA GRESEN	V-15 (M)	C411	C611	External	7.70	8.05
	V-15 (F)	C412	C612	Internal	7.70	8.05
	25P	C420	C620	Internal	7.70	8.05
	CS	C406	C606	Internal	8.05	8.40
	V12	C411	C611	External	7.70	8.05
	V20	C406	C606	Internal	8.05	8.40
	V20	C423	C623	Spring End	8.79	8.79
	V42	C407	C607	Internal	8.05	8.40
V42	C424	C624	Spring End	9.00	9.00	
HUSCO PARKER	6000	C408	C608	External	7.70	8.05
	VDP11/12	C409	C609	External	7.35	7.70
PRINCE	RD5200	C422	C622	External	8.09	8.44
	RD5300	C422	C622	External	8.09	8.44
	20T/20P	C406	C606	Internal	7.80	8.15
REXROTH	MP-18	C429	C629	External	8.05	8.40



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