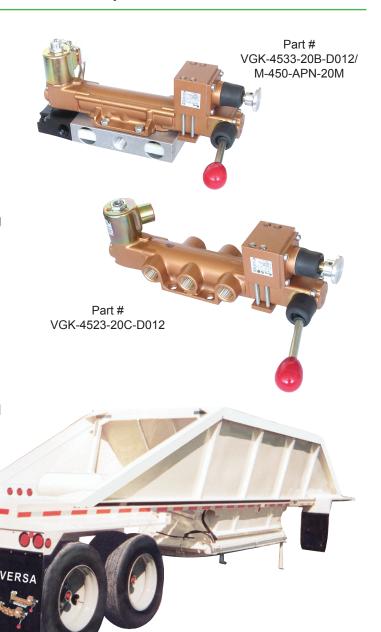


Bulletin 165 January 2015

Trouble Free Series "V" Bottom Dump Control Valves

Trouble free for years despite exposure to heat, cold, dirt and vibration. Used as a "Bottom dump" valve for hopper control on bottom dump trailers or railroad coal cars.

- Standard "Bottom Dump" operation provides both 2 position solenoid control and 3 position manual control in one valve.
- 1/2 inch NPT full flow construction.
- Bubble-tight seals provide leak free service for "creep free" hopper control.
- Withstands impact with thick walled forged brass construction.
- Prevents contamination from dirt and sand with Versa proven dust proof option keeping solenoid and main valve free from clogging.
- Solenoid actuators utilize "solenoid-pilot" design, no coil burn-out due to valve hang up.
- Main spring is "air spring," no mechanical spring to break or fail.
- Use of "solenoid-pilot" and "air spring" assure positive shift every time!
- Quick removal of valve with plug-in solenoid option.
- Standard '0' ring seals make repair easy!
- Economical space saving "in line" version available.
- 100% factory tested at ISO 9001 certified facility.
- Supported by established worldwide distributor network.



Operation

Mode One - Solenoid Application (2 position only)

To pressurize port 'B', and exhaust port 'A', electrically energize the solenoid (the energized solenoid also pressurizes the air spring section of the valve). Maintained contact is required. To pressurize port 'A' and exhaust port 'B', de-energize the solenoid. The air spring will return the plunger (the air spring section will remain pressurized). The valve will remain in this position until the solenoid is ether energized again or valve is manually re-positioned.

Mode Two - Lever Application (2 or 3 position)

To manually operate this valve, the solenoid must be electrically de-energized and the air spring section depressurize by depressing the palm button (this button is spring loaded and will reset itself). To pressurize port 'B' and exhaust port 'A,' move the hand lever toward the valve body. To pressurize port 'A' and exhaust port 'B', move the hand lever away from the valve body. To block all valve ports, move the lever midway between the two pressured positions noted above. The valve will remain in any one of the set 3 positions until either the lever is manually re-positioned or solenoid is energized.

General specifications				
Function:	4-Way, 2 and 3 position			
Type:	Solenoid operated, air spring return, 2 position valve, or lever operated, 2 or 3 position valve			
Media:	Air			
Pressure:	50 to 175 psi			
Flow C _v :	4.0			
Voltage:	12 DC			
Power:	9.4 Watts			
Duty:	Continuous duty coil			
Connections:	1/2" NPT ports 1/2" NPT electrical conduit, solenoid leads are not polarity dependent			
Materials:	Body: Brass			
	Seals: Nitrile			
	Coil: Epoxy molded			
	Solenoid enclosure: Carbon steel, chromate coated			

Part numbers				
Model	20C	20B		
Valve	VGK-4523-20C-D012	VGK-4533-20B-D012	M-450-APN-20M	
Valve Description	Side Ported Valve	Manifold Mounted Valve	Manifold for -20B	
Body Assembly	SA-4523-71-20C	SA-4533-71-20A	N/A	
Seal Kit	V-4512-KP-20B	V-4512-KP-20B	N/A	
Lever/Air Spring	SA-4322-75-20C	SA-4322-75-20B	N/A	
Lever Kit	VY-4302-24D	VY-4302-24D	N/A	
Solenoid Assembly	SA-4322-84-20C-D012	SA-4322-84-20A-D012	N/A	
Solenoid Kit	E-3198-34-14-D012	E-3198-34-P-D012	N/A	
Coil	P-1002-02-D012	P-1002-90P-D012	N/A	
Junction Box Kit	N/A	N/A	P-1002-95L-20M	

For dimensional information and additional details on service kits, please consult factory