AIR OPERATED DIRECTIONAL CONTROL VALVE
THREE-WAY, DIRECT ACTING, SPOOL (3/2)

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-033.1

AODV-12-X-3C-X-XX

BASIC
SIZE
12 = 1.062"-12 UNF
SEALS
N = BUNA "N"
V = VITON
SPOOL
3C = "C" SPOOL
3-WAY, 2-POSITION

PILOT PORT
1P = 1/8" NPTF
1B = G 1/8" BSPP
4T = SAE - #4

PORTS
0 = CARTRIDGE ONLY
04BX = G 1/2" BSPP
06BX = G 3/4" BSPP
10TX = SAE - #10
12TX = SAE - #12

"A" - ALUM. HOUSING
"S" - STEEL HOUSING

Pilot port

TORQUE to 80/90 Ft-Lb.
[100/120 N-m]

PSI

G.P.M. (135 SUS)

PRESSURE DROP (ΔP)

L/M (28.5 cSt)

11,3 22,5 33,8 45 56,3 67,5

10,5 10,5 7,0 7,0 3,5 3,5

1 to 2 2 to 3

BAR

Reference: S20-P-093230-EN-00/09.2015
AIR OPERATED, THREE-WAY,
DIRECT ACTING, SPOOL TYPE (3/2)

DESCRIPTION
This unit is a THREE-WAY, TWO POSITION, screw-in cartridge style, direct acting spool type, air or hydraulic operated, spring return, hydraulic directional control valve.

OPERATIONS
When pilot piston is not actuated, this valve allows flow between ports 2 to 1 and port 3 is blocked.
When pilot piston is pressurized, the spool in this valve is shifted and allows flow between ports 3 to 2 and port 1 is blocked. This valve shifts in a open center position.
Port #1 can be pressurized to 18.5 x PILOT PORT pressure.

FEATURES AND BENEFITS
Hardened precision fitted spool & sleeve provides reliable, long life.
Corrosion free pilot piston assembly allows this valve to be operated by air or any type of hydraulic fluids.
Pilot piston is isolated from hydraulic fluid with high pressure seals.
All external carbon steel parts are plated for longer life against the elements.
All cartridge valves are 100% functionally tested.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 16.0 GPM [60 l/m] See performance chart.
INTERNAL LEAKAGE: 5 cu.in/min [82 cc/m] @ 5,000 PSI [350 Bar]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
PILOT OPERATING MEDIA: Air or hydraulic fluid.
PILOT PISTON AREA RATIO TO SYSTEM PRESSURE AREA IS: 18.5 to 1.
PILOT OPERATING PRESSURE IS: 50 PSI to 250 PSI air.
50 PSI to 1000 PSI hydraulic.

SEAL KIT: SKN-1232 Buna "N"
SKV-1232 Viton
INSTALLATION: No restrictions.
WEIGHT: 0.68 lb [0.34 kg] cartridge only.
VALVE CAVITY: #C1230, See Page 0-033.0.