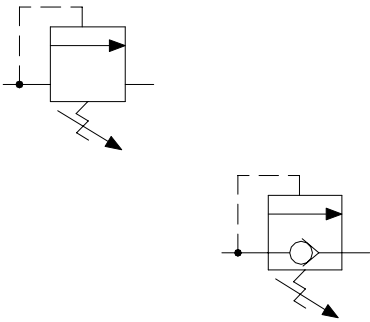


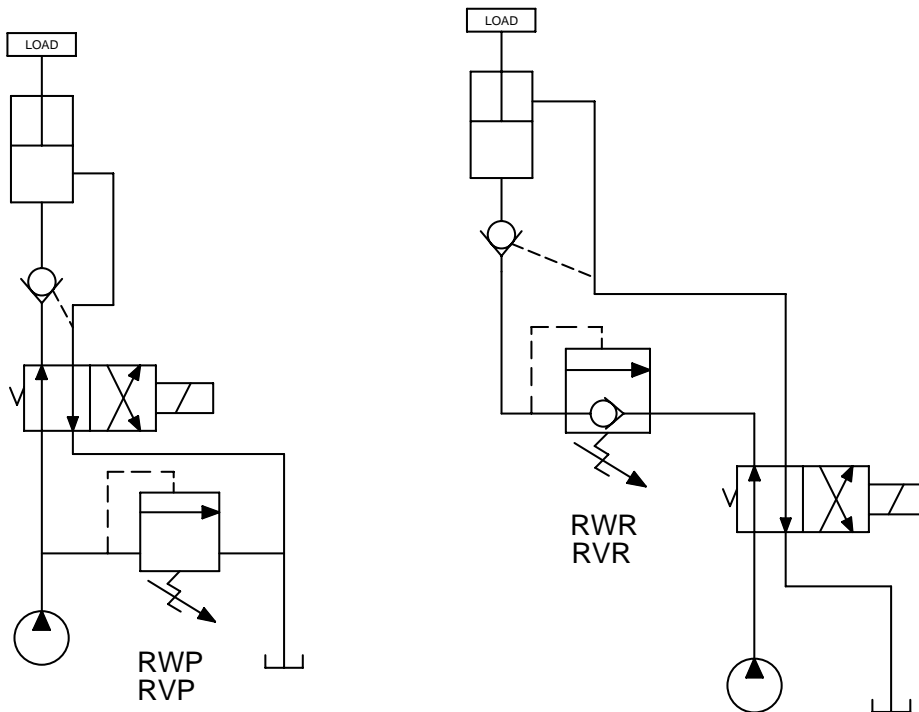
Pilot Operated Relief Valves

	GPM	PSI	LPM	BAR	MODEL	PAGE
	20	4000	76	276	DE-RVP	134
	20	4000	76	276	HT-RVP	136
	15	4000	57	276	DE-RVR	138
	40	3500	151	241	SJ-RVR	140
	15	4000	57	276	DE-RWP	142
	15	4000	57	276	DE-RWR	144
	20	4000	76	276	QR-RVP	146

Typical Schematic

Typical application for the RVP and RWP is to protect pump or system.

Typical application for the RWR and RVR, is to be used as counterbalance in a system where positive hydraulic locking is not required. In this schematic positive locking is done using a P. O. check valve.



WARNING: The specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DE-RVP Pilot Operated Relief Valve

DESCRIPTION

10 size, 7/8-14 thread, "Delta" series, pilot operated relief valve.

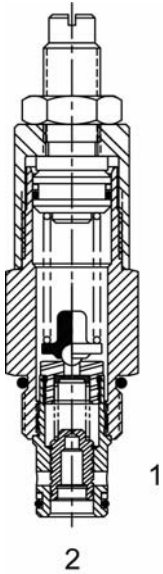
OPERATION

The DE-RVP blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage open, allowing the main stage to shift, opening (2) to (1).

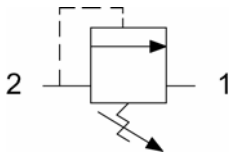
The cartridge offers smooth transition in response to load changes in common hydraulic circuits.

FEATURES

- Hardened parts for long life.
- Industry common cavity.

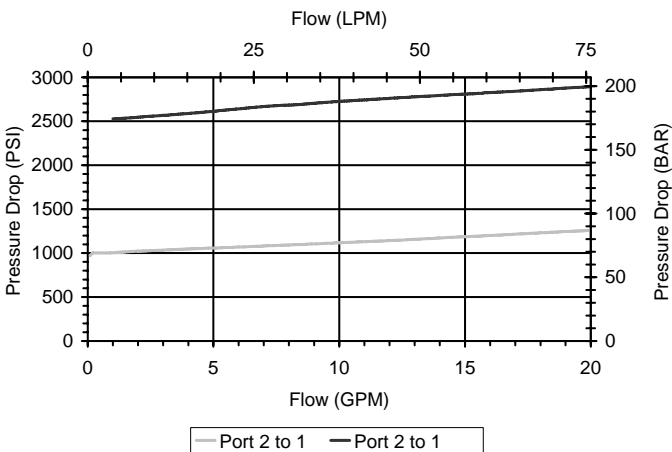


HYDRAULIC SYMBOL



PERFORMANCE

Actual Test Data (Cartridge Only)

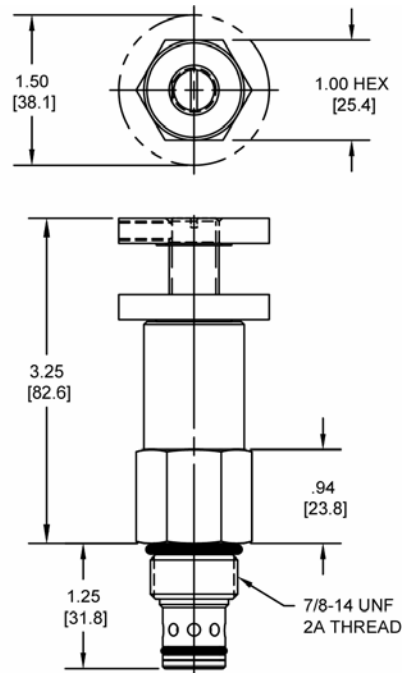


VALVE SPECIFICATIONS

Nominal Flow	20 GPM (76 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.56 lbs. (.25 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191200

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

DE-RVP		-	-	-	-
OPTIONS					BODIES
Buna Standard	00				Blank
Viton Standard	V0				Without Body
Buna, Knob	0K				3/8" BSP Ports
Viton, Knob	VK				#8 SAE Ports
				4000	PRESSURE RANGE/SETTING
					100 - 4000 PSI

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

HT-RVP Pilot Operated Relief Valve

DESCRIPTION

12 size, 1 1/16-12 thread, "Tecnorm" series, pilot operated relief valve.

OPERATION

The HT-RVP blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage off its seat, allowing the main stage spool to shift, opening (2) to (1).

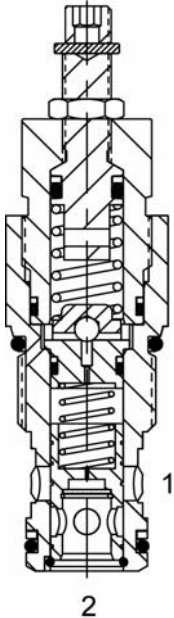
The cartridge offers smooth transition in response to load changes in common hydraulic circuits.

FEATURES

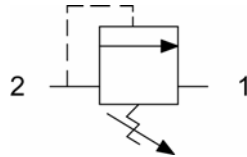
- Hardened parts for long life.
- Industry common cavity.



Undercut cavity recommended for circuits above 2500 PSI where flows go to 30 GPM.



HYDRAULIC SYMBOL

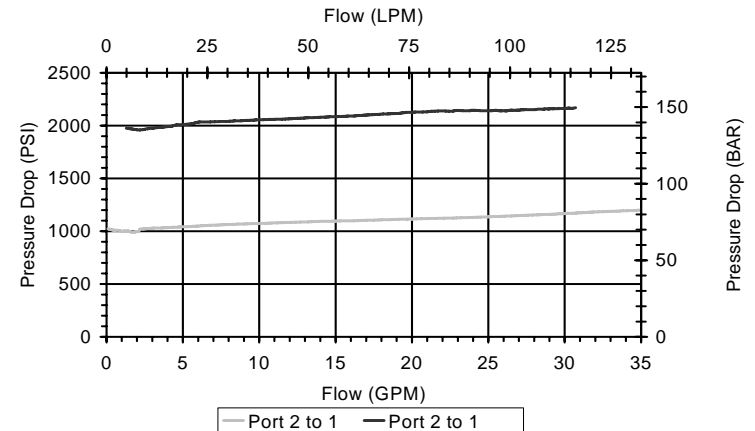
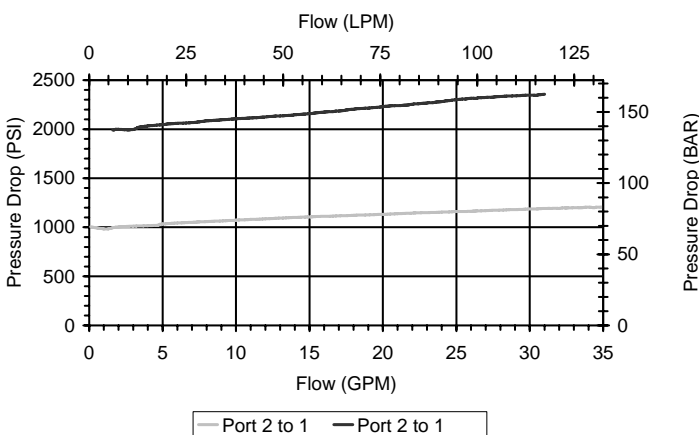


VALVE SPECIFICATIONS

Nominal Flow	20 GPM (76 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	1.13 lbs. (.51 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	70 ft-lbs (95 Nm)
Cavity	TECNORD 2W
Cavity Tools kit (form tool, reamer, tap)	40500032
Seal Kit	21191300

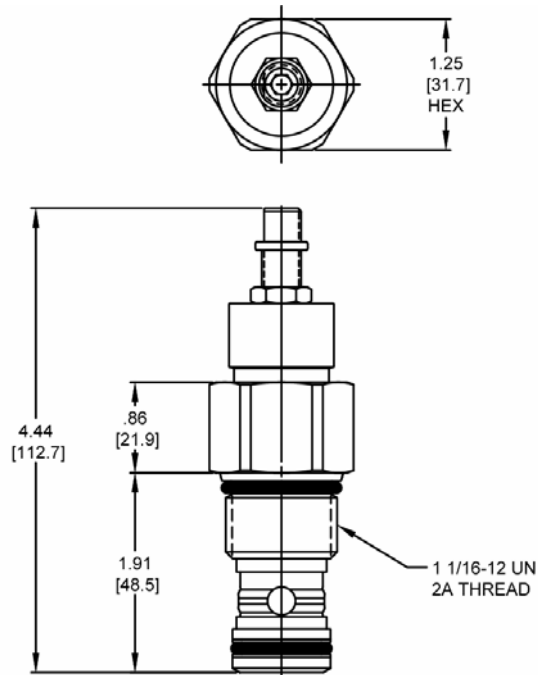
PERFORMANCE

Actual Test Data (Cartridge Only)



WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



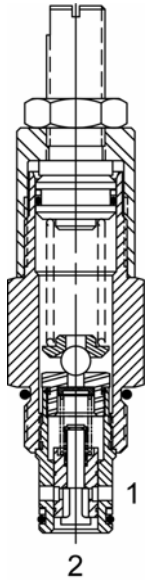
(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

HT-RVP		-	-	-	-
OPTIONS					BODIES
Buna Standard	00			Blank	Without Body
Viton Standard	V0			N	3/4" BSP Ports
Buna, Knob	0K			S	#12 SAE Ports
Viton, Knob	VK				
			5000		PRESSURE SETTING
					100 - 5000 PSI

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DE-RVR Pilot Operated Relief Valve, with Reverse Flow



DESCRIPTION

10 size, 7/8-14 thread, "Delta" series, pilot operated relief valve with reverse flow

OPERATION

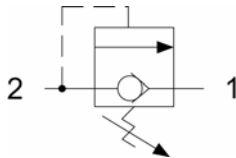
The DE-RVR blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage open, allowing the main stage to shift, opening (2) to (1).

The relief flow path is from (2) to (1). Free reverse flow, from (1) to (2), occurs when the pressure at (1) is at least 10 PSI (.7 bar) higher than at port (2).

FEATURES

- Hardened parts for long life.
- Industry common cavity.

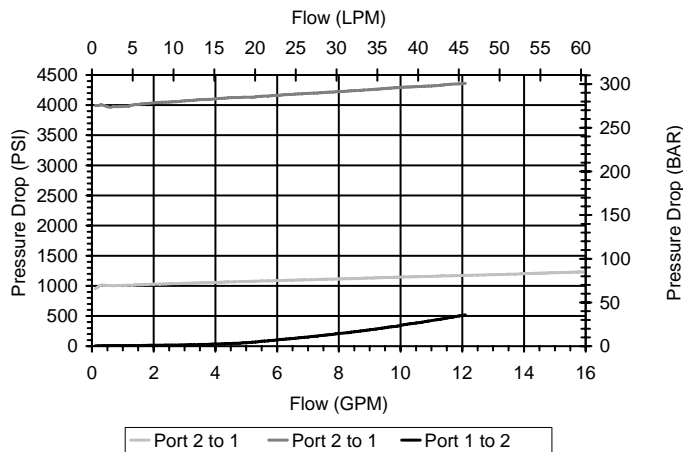
HYDRAULIC SYMBOL



Consult Chart for flow capacity port 1 to 2

PERFORMANCE

Actual Test Data (Cartridge Only)

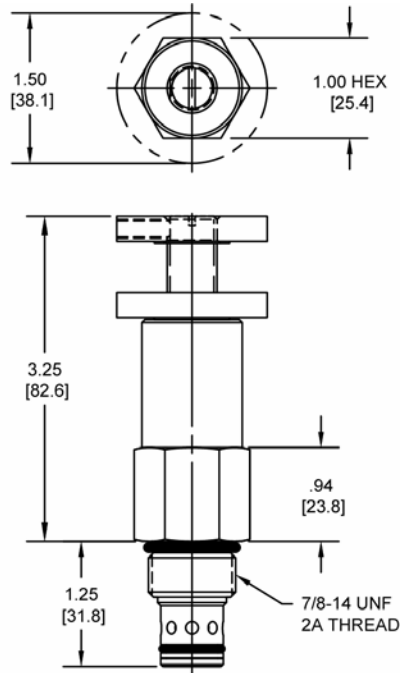


VALVE SPECIFICATIONS

Nominal Flow	15 GPM (57 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.56 lbs. (.25 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191200

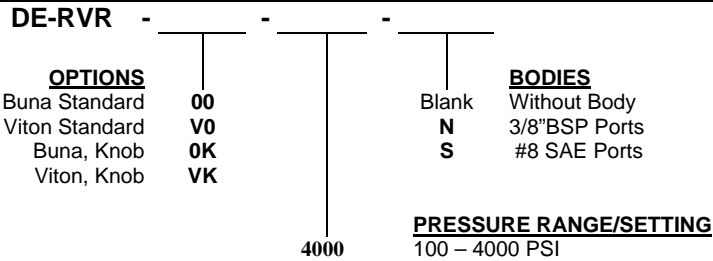
WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION



WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

SJ-RVR Pilot Operated Relief Valve, with Reverse Flow

DESCRIPTION

16 size, 1 5/16-12 thread, "Super" series, pilot operated relief valve with reverse flow.

OPERATION

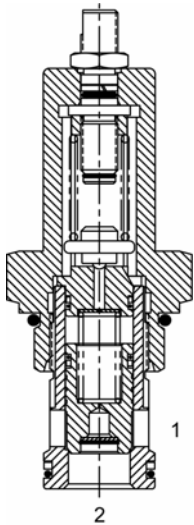
The SJ-RVR blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage off its seat, allowing the main stage spool to shift, opening (2) to (1).

The relief flow path is from (2) to (1). Reverse flow, from (1) to (2), occurs when the pressure at (1) is at least 30 PSI (2.1bar) higher then at port (2).

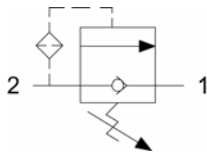
The Cartridge offers smooth transition in response to load changes in common hydraulic circuits.

FEATURES

- Hardened parts for long life.
- Industry common cavity.



HYDRAULIC SYMBOL

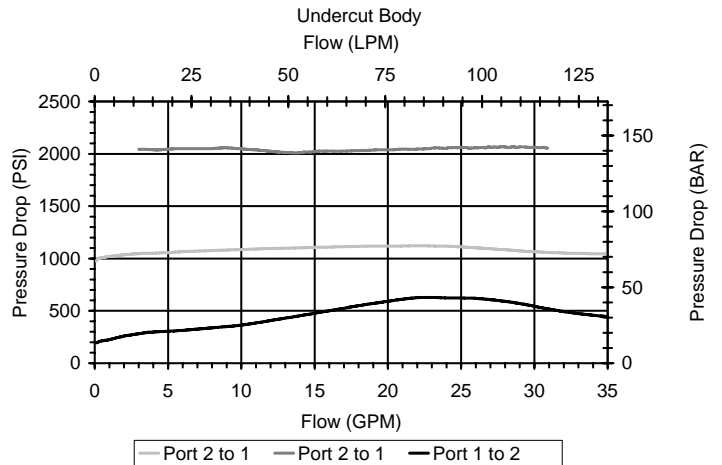
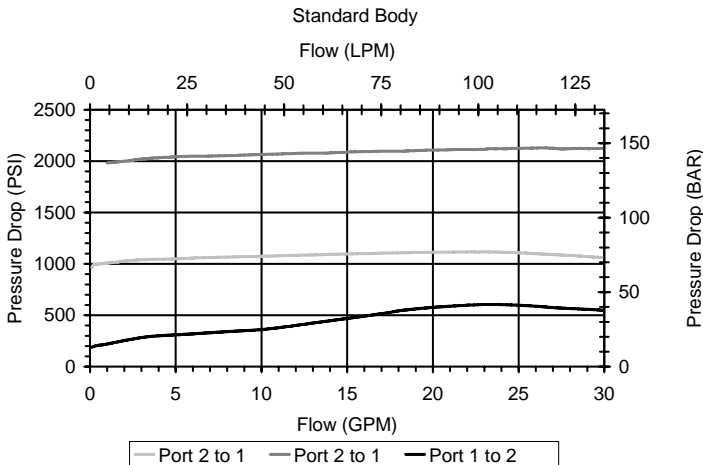


VALVE SPECIFICATIONS

Nominal Flow	40 GPM (151 LPM)
Rated Operating Pressure	3500 PSI (241 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	1.13 lbs. (.51 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	90 ft-lbs (122 Nm)
Cavity Tools kit (form tool, reamer, tap)	40500017
Seal Kit	21191400

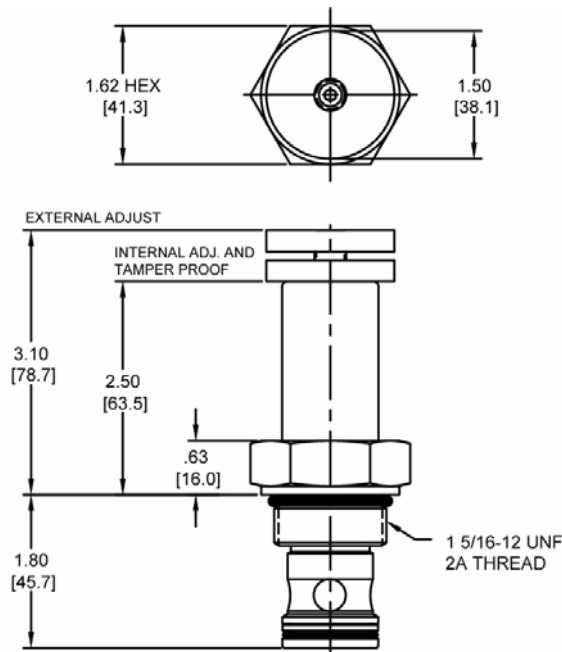
PERFORMANCE

Actual Test Data (Cartridge Only)



WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

SJ-RVR		-	-	-	-
OPTIONS					BODIES
Buna Standard	00				Blank
Viton Standard	V0				N
Buna, Knob	0K				S
Viton, Knob	VK				Without Body

PRESSURE SETTING
500 - 3500 PSI

3500

Example TAMPER PROOF (fill in 4 digit pressure setting)
0500 = 500 PSI

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DE-RWP Pilot Operated Relief Valve

DESCRIPTION

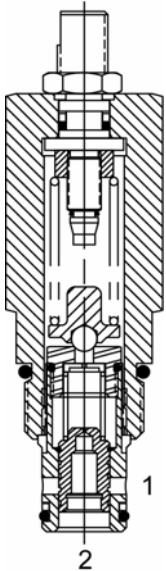
10 size, 7/8-14 thread, "Delta" series, pilot operated relief valve.

OPERATION

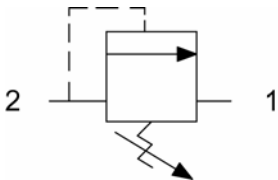
The DE-RWP blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage open, allowing the main stage to shift, opening (2) to (1).

FEATURES

- Hardened parts for long life.
- Industry common cavity.

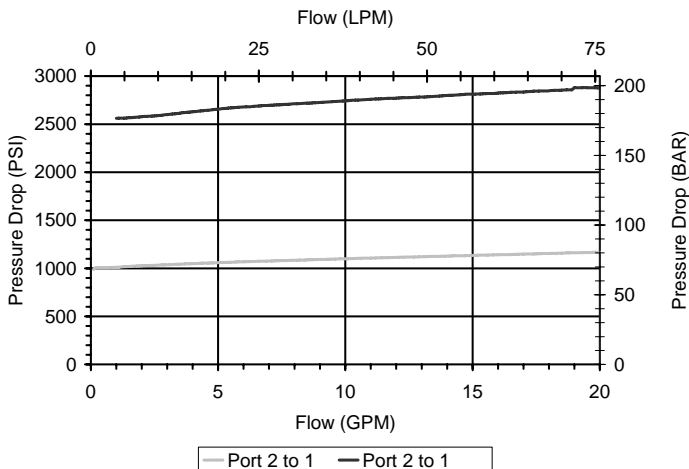


HYDRAULIC SYMBOL



PERFORMANCE

Actual Test Data (Cartridge Only)

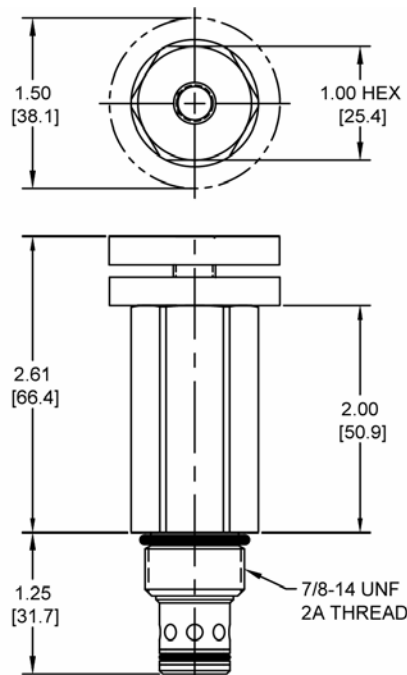


VALVE SPECIFICATIONS

Nominal Flow	15 GPM (57 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.53 lbs. (.24 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191200

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

DE-RWP		-	-	-	-
OPTIONS					BODIES
Buna Standard	00				Without Body
Viton Standard	V0			Blank	3/8" BSP Ports
Buna, Knob	0K			N	#8 SAE Ports
Viton, Knob	VK			S	
Internally Adj. Buna	0I				
Internally Adj. Viton	VI				
Tamper Proof Buna	0T				
Tamper Proof Viton	VT				
			4000		
					PRESSURE RANGE/SETTING
					1000 – 4000 PSI
					Tamper Proof
					Fill in 4 Digit Pressure Setting
					Example: 0500 – 500 PSI

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DE-RWR Pilot Operated Relief Valve, with Reverse Flow

DESCRIPTION

10 size, 7/8-14 thread, "Delta" series, pilot operated relief valve with reverse flow.

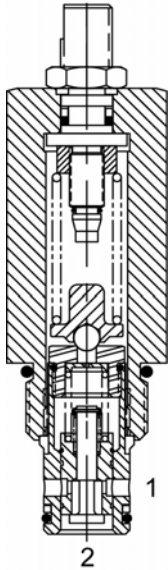
OPERATION

The DE-RWR blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage open, and allow metered flow from (2) to (1).

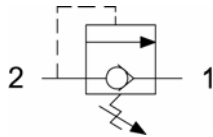
The relief flow path is from (2) to (1). Free reverse flow, from (1) to (2), occurs when the pressure at (1) is at least 10 PSI (.7 bar) higher than at port (2).

FEATURES

- Hardened parts for long life.
- Industry common cavity.



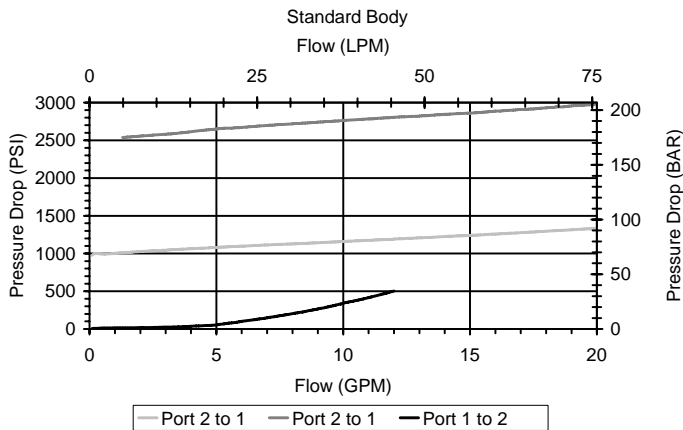
HYDRAULIC SYMBOL



Consult chart for flow capacity (1) to (2).

PERFORMANCE

Actual Test Data (Cartridge Only)

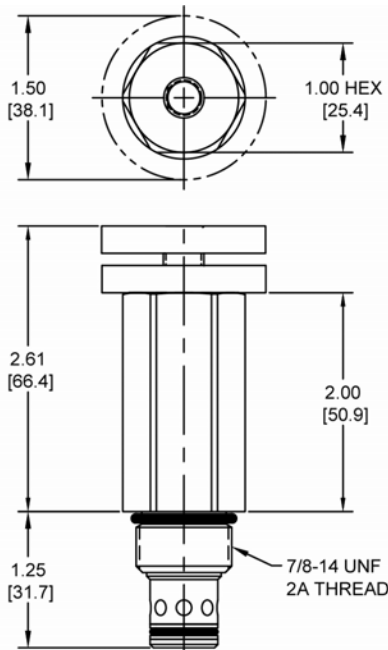


VALVE SPECIFICATIONS

Nominal Flow	15 GPM (57 LPM)
Rated Operating Pressure	4000 PSI (276 bar)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.53 lbs. (.24 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	DELTA 2W
Cavity Tools kit (form tool, reamer, tap)	40500000
Seal Kit	21191200

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

DE-RWR		-	-	-	-
OPTIONS					BODIES
Buna Standard	00				Blank
Viton Standard	V0				Without Body
Buna, Knob	0K				3/8" BSP Ports
Viton, Knob	VK				#8 SAE Ports
Internally Adj. Buna	0I				
Internally Adj. Viton	VI				
Tamper Proof Buna	0T		4000		
Tamper Proof Viton	VT				
					PRESSURE RANGE/SETTING
					1000 – 4000 PSI
					Tamper Proof
					Fill in 4 Digit Pressure Setting
					Example: 0500 – 500 PSI

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

QR-RVP Pilot Operated Relief Valve

DESCRIPTION

Special cavity, pilot operated relief valve.

OPERATION

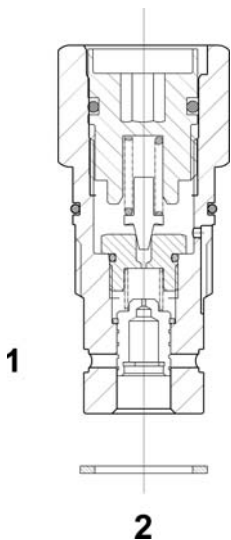
The DE-RVP blocks flow from (2) to (1) until sufficient pressure is present at (2) to force the pilot stage open, allowing the main stage to shift, opening (2) to (1).

The cartridge offers smooth transition in response to load changes in common hydraulic circuits.

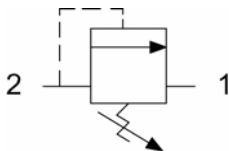
A copper washer (26x20x1,5 mm) is needed on the bottom of the cavity

FEATURES

- Hardened parts for long life
- Low cost construction
- Tamper proof setting

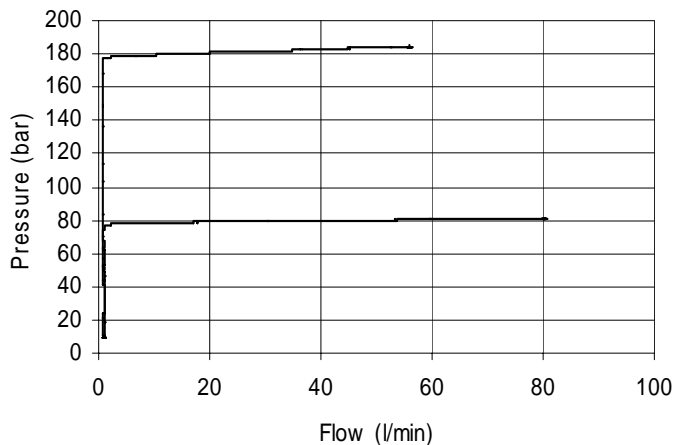


HYDRAULIC SYMBOL



PERFORMANCE

Actual Test Data (Cartridge Only)

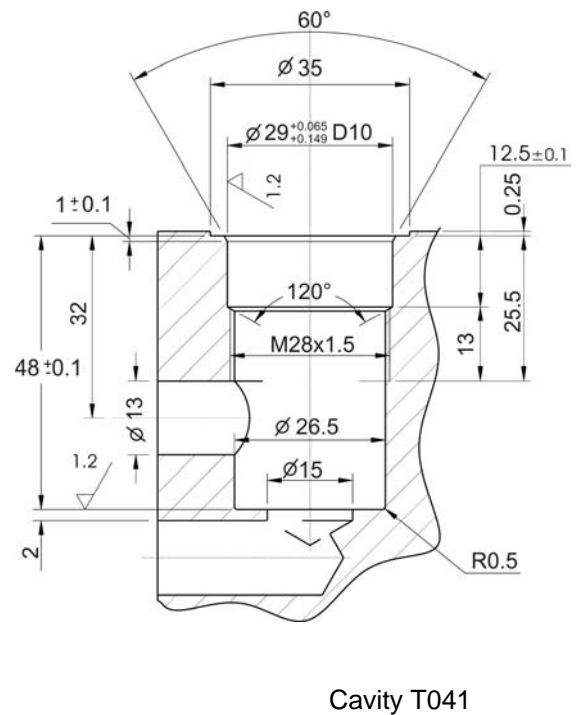
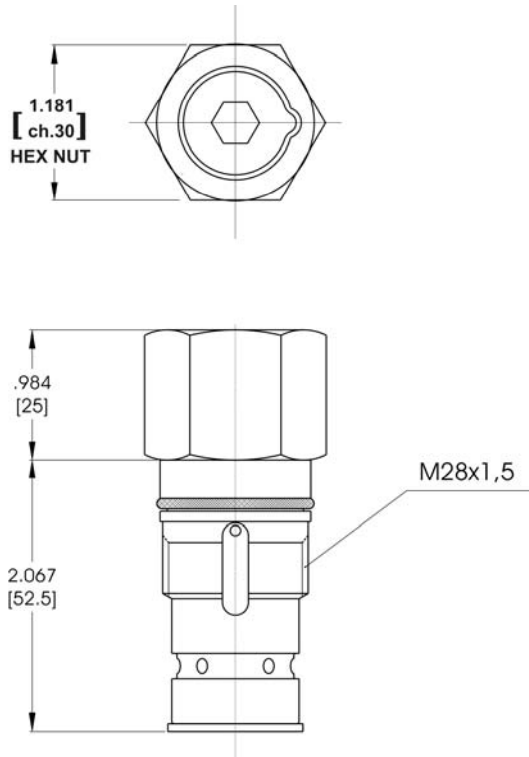


VALVE SPECIFICATIONS

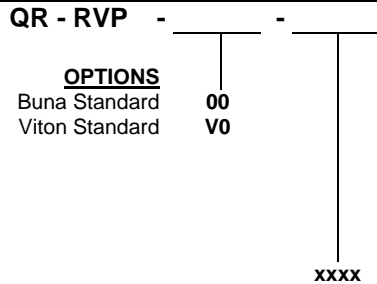
Nominal Flow	20 GPM (76 LPM)
Setting range	40 – 300 bar
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.56 lbs. (.25 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	T041
Cavity Tools kit (form tool, reamer, tap)	K-T041

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

DIMENSIONS



ORDERING INFORMATION



PRESSURE RANGE/SETTING

Tamper proof settings
to be specified (40 – 300 bar)

WARNING: The specifications/application data shown in our catalogs and data sheets is intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.