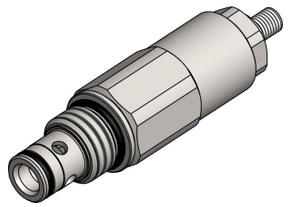
RVI0.S10 VALVE SERIES

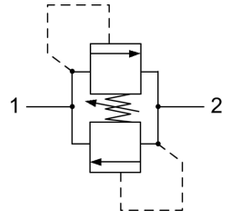
SAE10 Cartridge - 350 bar

Direct acting - Poppet type

Bi-directional



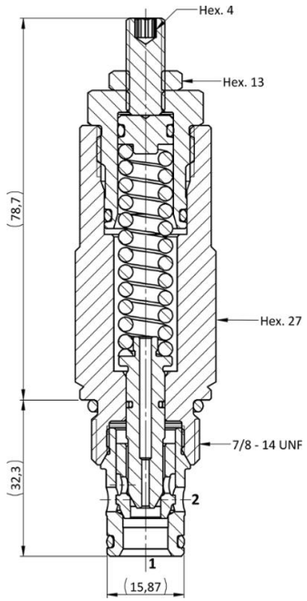
HYDRAULIC SYMBOL



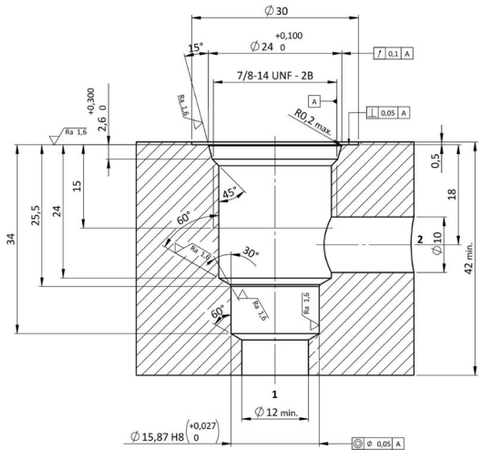
DESCRIPTION

A screw-in, cartrigde style, direct acting, poppet type, normally closed hydraulic bi-directional relief valve. It's typically used to protect hydraulic components from pressure transients. The RVI valve blocks flow from either port 1 or port 2. When the pressure differential between ports 1 and 2 reaches the valve setting, the valve starts to open, throttling flow to minimize the pressure rise, regardless of the inlet flow direction. Both directions have very similar setting pressure performance. The cartridge offers excellent response to load changes in hydraulic circuits requiring low internal leakage as well as limited hysteresis.

CROSS SECTION



CAVITY
SAE10



TECHNICAL DATA

MAXIMUM OPERATING PRESSURE	350 bar
MAXIMUM FLOW	80 l/min
SETTING PRESSURE	see table below
MAXIMUM INTERNAL LEAKAGE	15 cm^3 / min to 70 % of nominal set point
MAX. DIFFERENCE FOR SETT. PRESSURE (BOTH DIRECTION)	<10% of setting pressure
EXTERNAL COMPONENT TREATMENT	Zn/Fe - standard (96h) Zn/Ni (720h) (Upon customer request)
O-RING TEMPERATURE RANGE	-30° C to 110° C (standard sealing NBR - BUNA - N) -35° C to 140° C (HNBR - Upon customer request) -23° C to 225° C (FKM - Upon customer request)
OIL TEMPERATURE RANGE	-30° C to 110° C
PRESSURE SETTINGS ESTABLISHED	5 l/min
RESEAT PRESSURE	nominal 80% of cracking pressure
FLUIDS	Mineral - based or synthetics with lubricating properties
VISCOSITIES	7,4 to 420 cSt
FILTRATION	20/18/15 ISO 4406 (maximum filtration admitted)
ORIENTATION	No restrictions
INSTALLATION TORQUE	55-60 Nm Hex.27
NUT TINGHTENING TORQUE	10-15 Nm Hex.13
TECH. SPEC. FOR CHARACTERIZATION	see page 807
OIL TESTING CONDITIONS	ISO VG 46 cSt
SEAL KIT CODE	SK.032 (standard sealing NBR-BUNA-N)
WEIGHT	0,320 kg

ORDERING CODE

R	V	I	0	·	S	1	0	·	0	*	·	*	*	*

VALVE BASIC CODE

MARKING
0 = Standard factory marking.
Customized marking can be done upon request.

SETTING PRESSURE IN [BAR]
000 = No specific setting required.

SIZE
7/8-14 UNF with Ø15,87 nose size

BIAS SPRING OPTIONS

Spring model code	Setting pressure range (bar)	Pressure increment per turn [bar/turn]
N	20-60	13,1
B	60-150	31,9
G	150-250	53,3
V	220-350	92,8

Specifications may change without notice.

Rev. 1

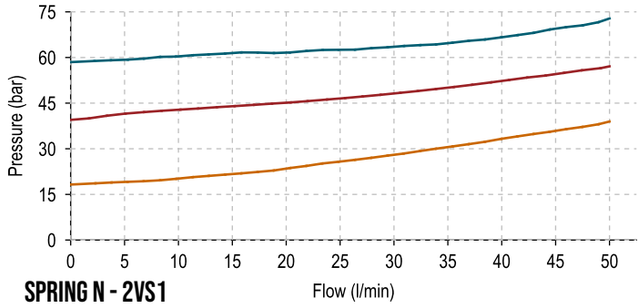
RV10.S10 SPRINGS' GRAPHS

The performance chart illustrates flow handling capacity for significant spring bias options.
p/Q curves are recorded at TOil = 40°C and 46 cSt.

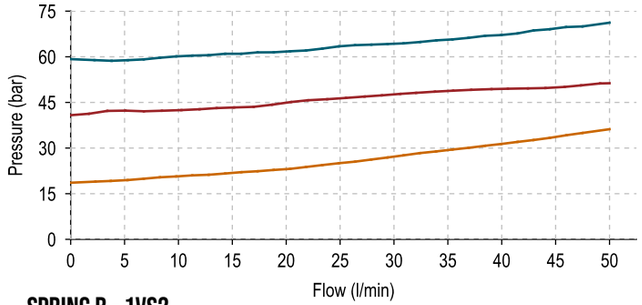
LEGEND

- Maximum setting pressure range
- Medium setting pressure range
- Minimum setting pressure range

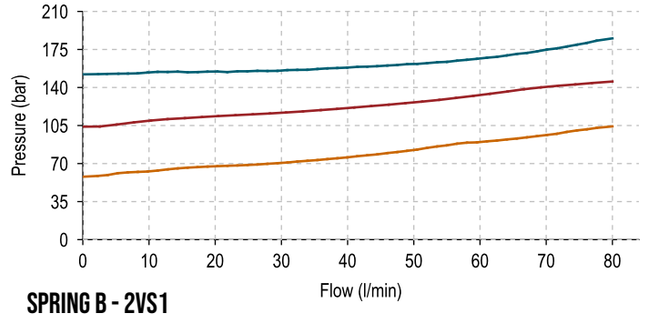
SPRING N - 1VS2



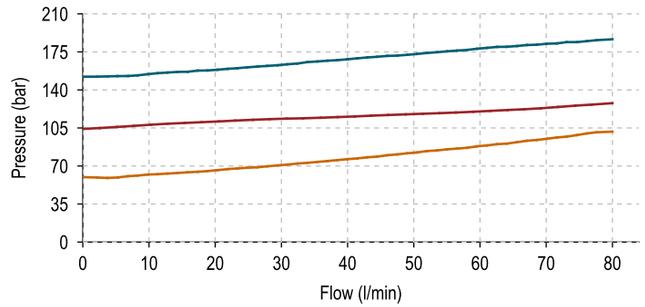
SPRING N - 2VS1



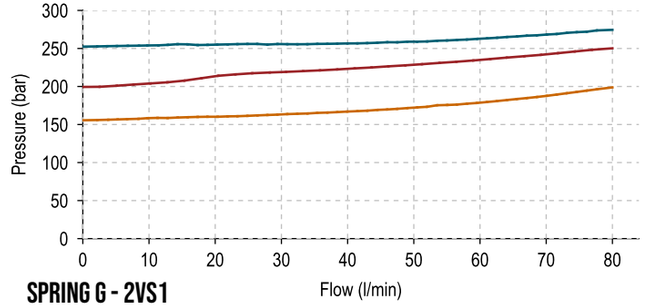
SPRING B - 1VS2



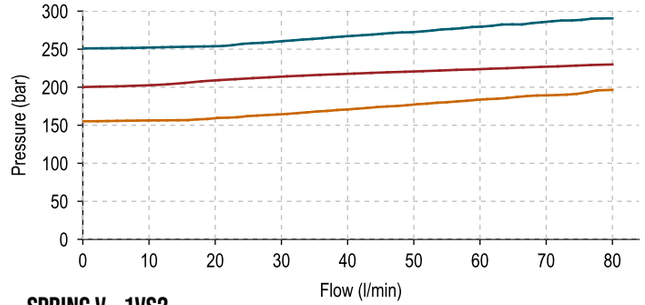
SPRING B - 2VS1



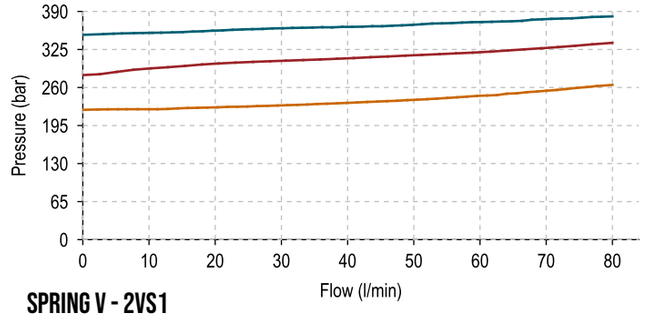
SPRING G - 1VS2



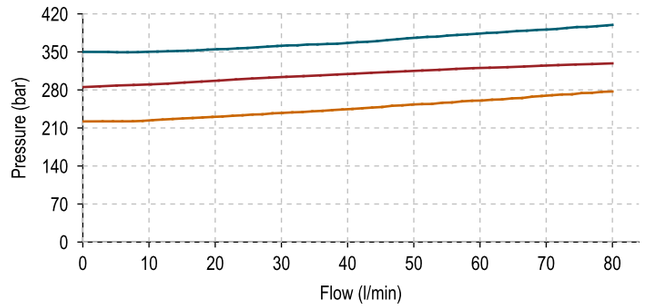
SPRING G - 2VS1



SPRING V - 1VS2



SPRING V - 2VS1



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