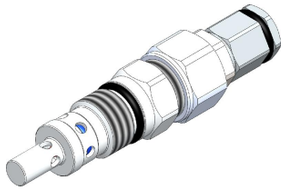
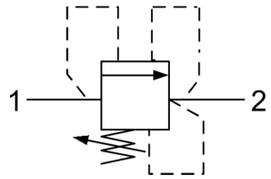
RVDC.M20 VALVE SERIES

METRIC Cartridge - 420 bar

Direct acting - Poppet type



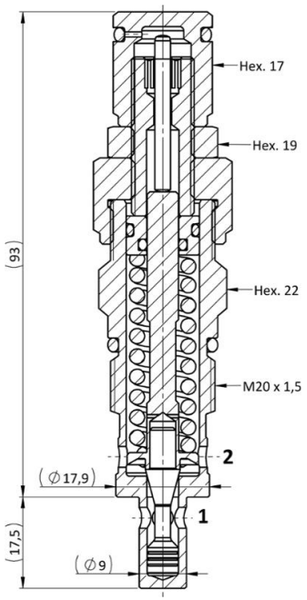
HYDRAULIC SYMBOL



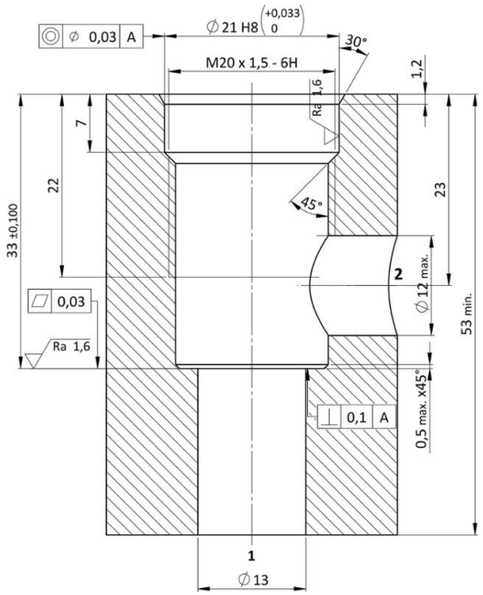
DESCRIPTION

A screw-in, cartridge style, direct acting, poppet type, normally closed hydraulic relief valve. It's typically used to protect hydraulic components from pressure transients. When the pressure at the Inlet (1) reaches the valve setting, the valve starts to open to tank (2) throttling flow to minimize the pressure rise. The innovative geometry of the deflector provides in fact a very low rise rate, and the poppet design guarantees great stability. The cartridge offers quick response to load changes in hydraulic circuits requiring low internal leakage as well as limited hysteresis.

CROSS SECTION



CAVITY
VH043



TECHNICAL DATA

MAXIMUM OPERATING PRESSURE	420 bar
MAXIMUM FLOW	30 l/min
SETTING PRESSURE	see table below
MAXIMUM INTERNAL LEAKAGE	1 cm^3 / min at 80 % of nominal set point
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 85% 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	40-50 Nm Hex.22
NUT TINGHTENING TORQUE	20-25 Nm Hex.19
BLIND NUT TINGHTENING TORQUE	18-22 Nm Hex.17
TECH. SPEC. FOR CHARACTERIZATION	see page 811
OIL TESTING CONDITIONS	ISO VG 46 cSt
SEAL KIT CODE	SK.106 (standard sealing NBR-BUNA-N)
WEIGHT	0,210 kg

ORDERING CODE

R	V	D	C	·	M	2	0	·	0	*	·	*	*	*

VALVE BASIC CODE

SIZE
METRIC M20x1,5

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

BIAS SPRING OPTIONS

Spring model code	Setting pressure range (bar)	Pressure increment per turn [bar/turn]
Y	5-55	9
N	56-110	16
B	111-215	37
G	216-350	65
V	351-420	75

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

Specifications may change without notice.

Rev. 1

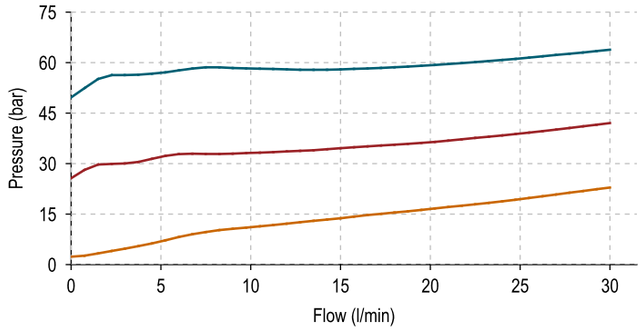
RVDC.M20 SPRINGS' GRAPHS

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

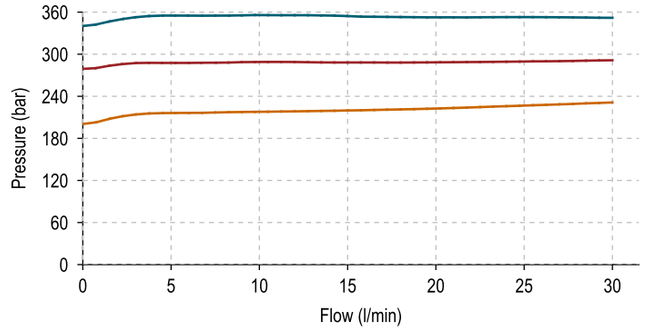
LEGEND

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

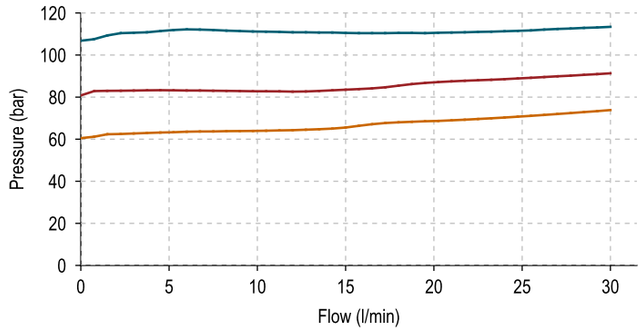
SPRING Y



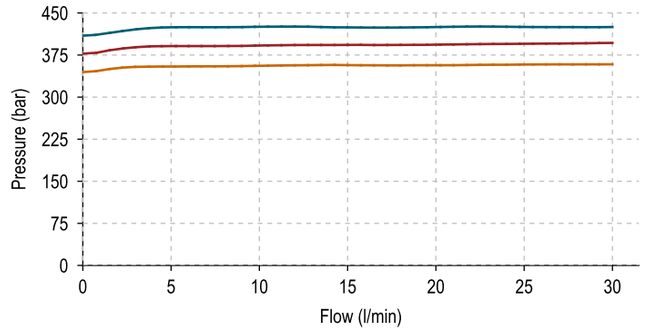
SPRING G



SPRING N



SPRING V



SPRING B