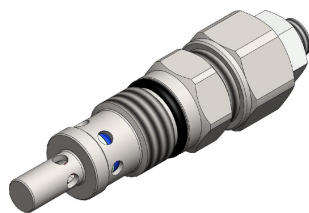


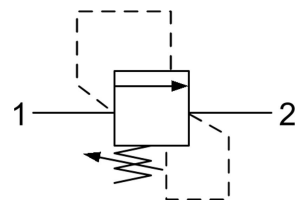
## RVD0.M20 VALVE SERIES

METRIC Cartridge - 420 bar

Direct acting - Poppet type



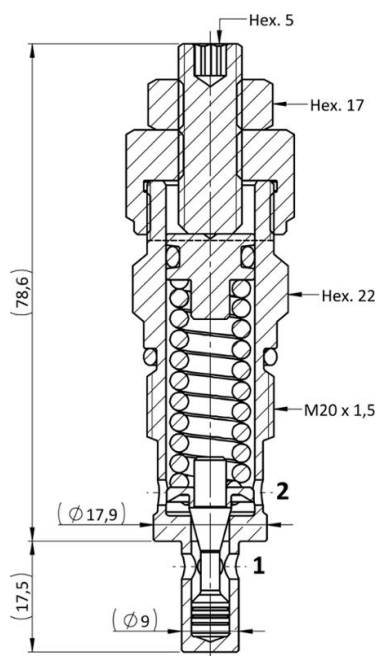
HYDRAULIC SYMBOL



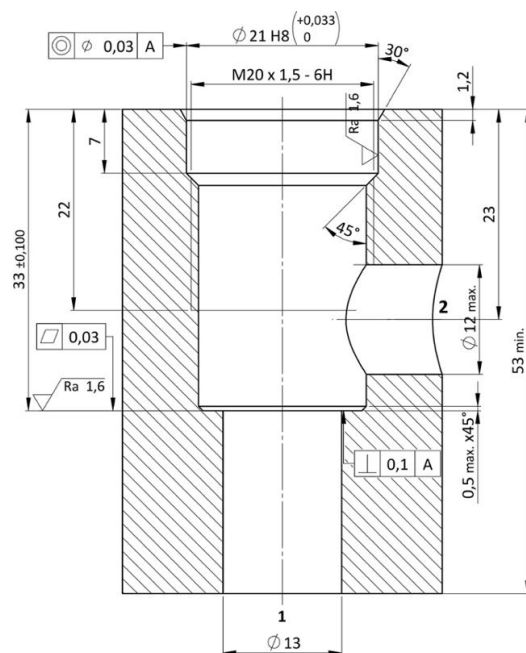
### DESCRIPTION

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 <sup>3</sup> / min at 80 % of nominal set point                                                                                                    |
| EXTERNAL COMPONENT TREATMENT     | Zn/Fe - standard (96h)<br>Zn/Ni (720h) (Upon customer request)                                                                                          |
| O-RING TEMPERATURE RANGE         | -30° C to 110° C (standard sealing NBR - BUNA - N)<br>-35° C to 140° C (HNBR - Upon customer request)<br>-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              | 45-50 Nm  Hex.22                                                                                                                                        |
| NUT TIGHTENING TORQUE            | 20-25 Nm  Hex.17                                                                                                                                        |
| TECH. SPEC. FOR CHARACTERIZATION | see page 811                                                                                                                                            |
| OIL TESTING CONDITIONS           | ISO VG 46 cSt                                                                                                                                           |
| SEAL KIT CODE                    | SK.020 (standard sealing NBR-BUNA-N)                                                                                                                    |
| WEIGHT                           | 0,145 kg                                                                                                                                                |

### ORDERING CODE

R V D 0

VALVE BASIC CODE

M 2 0

#### MARKING

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

0 \*

#### BIAS SPRING OPTIONS

\* \* \*

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

#### SIZE

METRIC M20x1,5

| Spring model code | Setting pressure range (bar) | Pressure increment per turn [bar/turn] |
|-------------------|------------------------------|----------------------------------------|
| Y                 | 5-55                         | 14                                     |
| N                 | 25-110                       | 24                                     |
| B                 | 50-215                       | 48                                     |
| G                 | 100-350                      | 89                                     |
| V                 | 100-420                      | 106                                    |

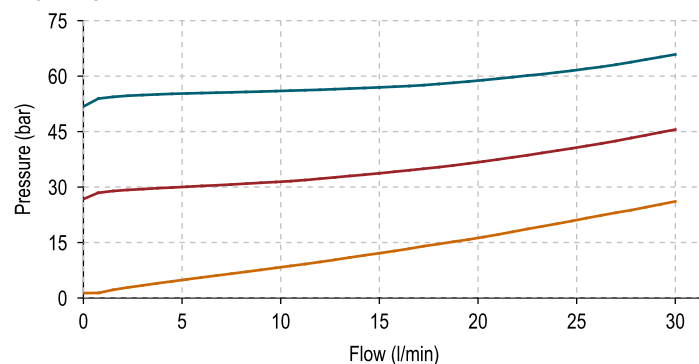
## RVDO.M20 SPRINGS' GRAPHS

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

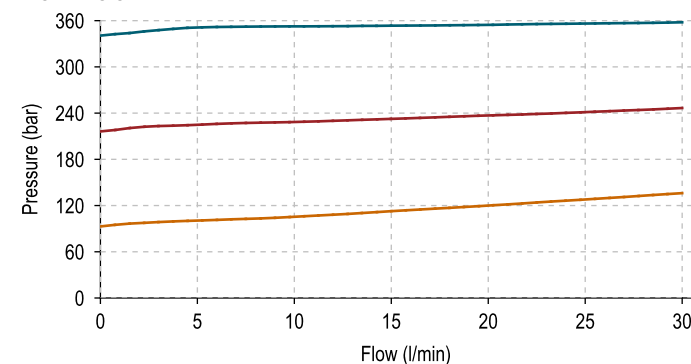
### LEGEND

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

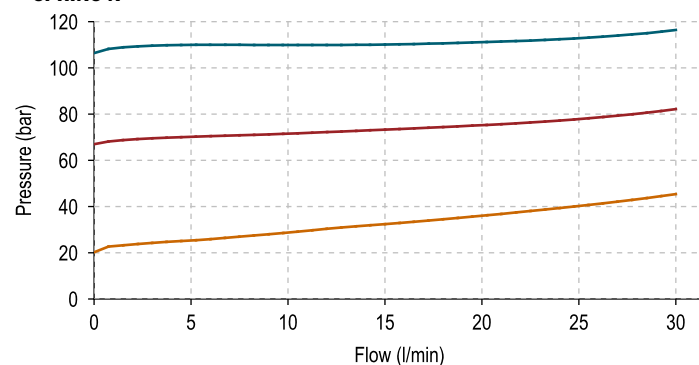
### SPRING Y



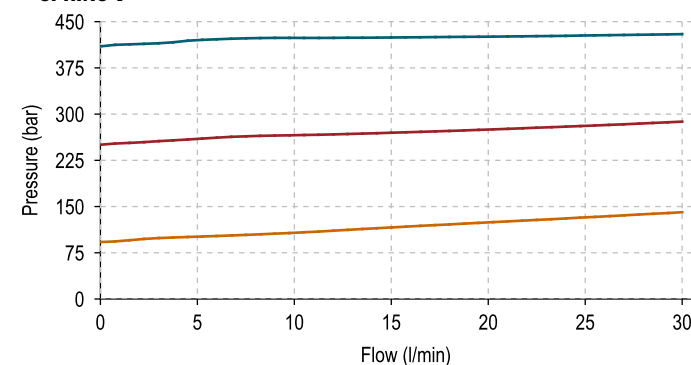
### SPRING G



### SPRING N



### SPRING V



### SPRING B

