

**WINMAN WRVD0.M20.B Series Relief Valves**

**WRVD0.M20.B Valve Series**

**Description**



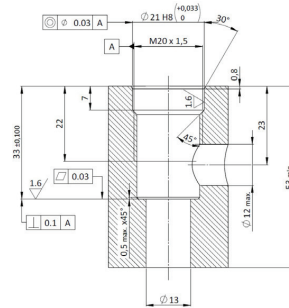
**METRIC Cartridge - 420 bar**  
Direct acting - Poppet type

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.

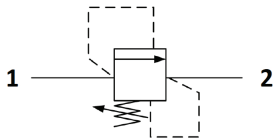
**Technical Features**

All external surfaces are zinc plated and corrosion-proof. All valve parts are made of high strength steel. Poppet is hardened and ground to guarantee minimal wear and to extend service life. Adjustment screw cannot be backed out of the valve. Optional spring ranges to 420 bar (6000 psi). Metric cavity.

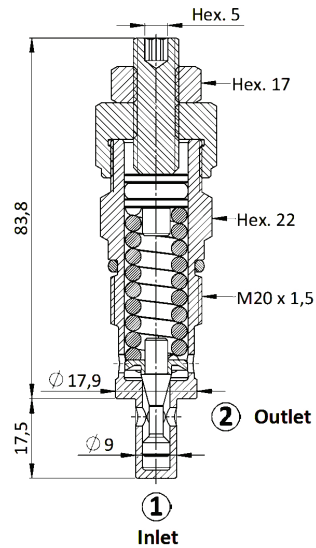
**Cavity Details VH043**



**Symbol**



**Cross Section**



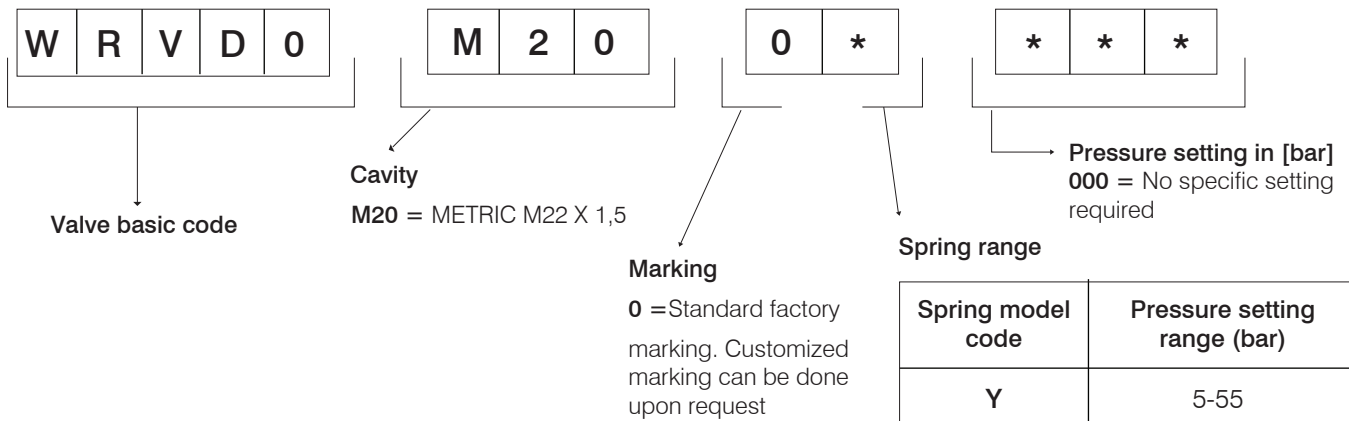
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#### Technical Data

Maximum operating pressure	420 bar
Maximum flow	30 l/min
Setting Pressure	See table below
Maximum internal leakage	1 cm <sup>3</sup> /min to 80% of nominal set point
External component treatment	Zn/Fe - standard (96h) Zn/Ni (720h)
O-ring Temperature Range	-30° C to 110° C (standard sealing NBR - BUNA-N)
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)
Tightening torque nut	20-25 Nm (Hex. 17)
Oil testing condition	ISO VG 46 cSt
Seal kit code	SK.020
Weight	0,145 kg

#### Ordering Code



Specifications may change without notice.

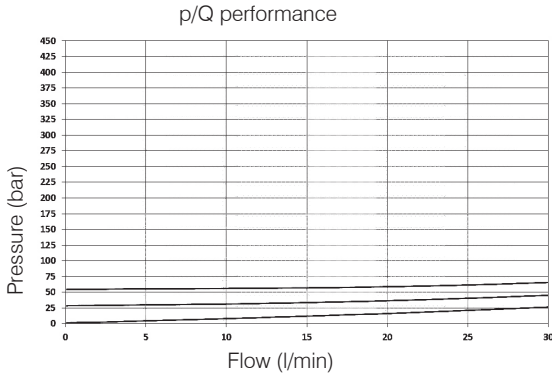
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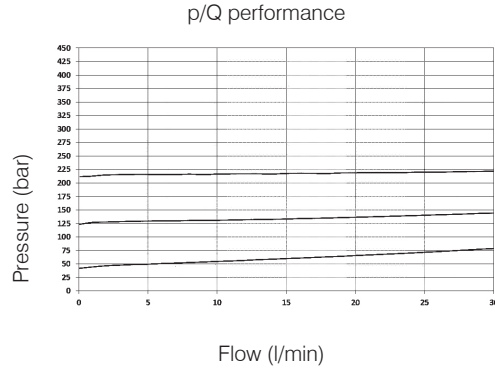
### Springs' Graphs

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

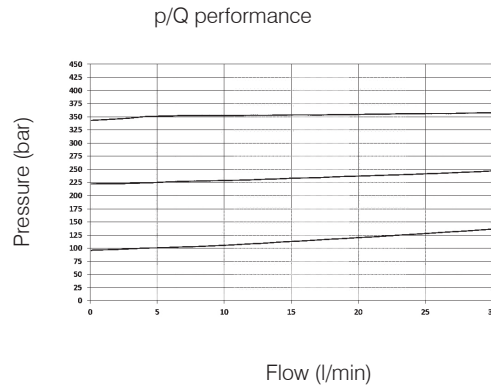
1) Spring = Y (5-15 bar)



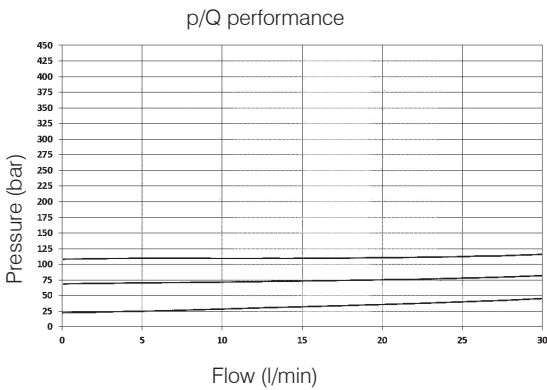
3) Spring = B ( 50- 215 bar )



4) Spring = G ( 100 - 350 bar)



2) Spring = N (25-110 bar)



5) Spring = V ( 100 - 420 bar)

