

Pressure Reducing - Relieving Valve, Spool-Type, Pilot-Operated

VRN2-10/S

M27x2 • Q_{max} 150 l/min (40 GPM) • p_{max} 320 bar (4600 PSI)

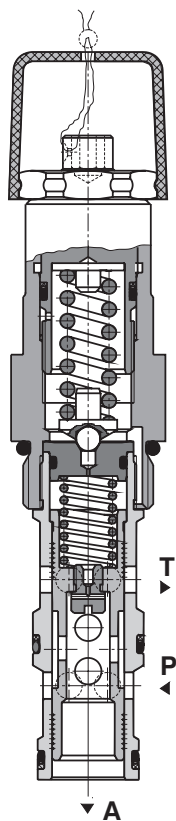
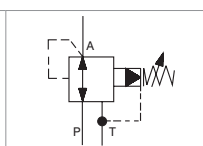
Technical Features

- › Excellent stability throughout flow range with rapid response to dynamic pressure changes
- › Low hysteresis, accurate pressure control and low pressure drop
- › Reverse relief protection
- › Wide pressure range up to 320 bar
- › High flow capacity
- › Hardened precision parts
- › Adjustable by allen key or hand screw, optionally sealable (lockwire holes)
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

This 3-way pilot-operated pressure reducing valve is designed to reduce the system pressure at consumer port. Due to its 3-way design the valve provides reverse relief protection of the secondary circuit to the tank port. The pressure can be set by an adjustment screw (by allen wrench or by hand) and the valve is optionally equipped with lockwire holes for sealing.

Symbol



Technical Data

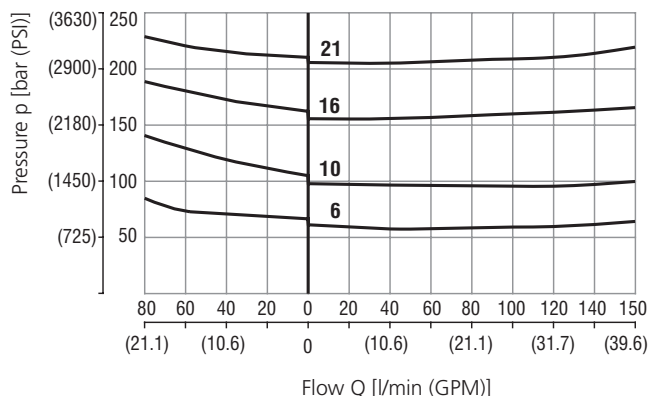
Valve size / Cartridge cavity		M27x2 / K3
Max. flow	l/min (GPM)	150 (39.6)
Max. operating pressure	bar (PSI)	320 (4640)
Max. pressure (port T)	bar (PSI)	160 (2320)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... 212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... 248)
Mass	kg (lbs)	0.35 (0.77)

		Datasheet	Type
General information		GI_0060	Products and operating conditions
Valve bodies	In-line mounted	SB_0018	SB-K3*
	Sandwich mounted	SB-04(06)_0028	SB-04(06)-K3*
Cavity details		SMT_0029	SMT-K3*
Spare parts		SP_8010	

Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

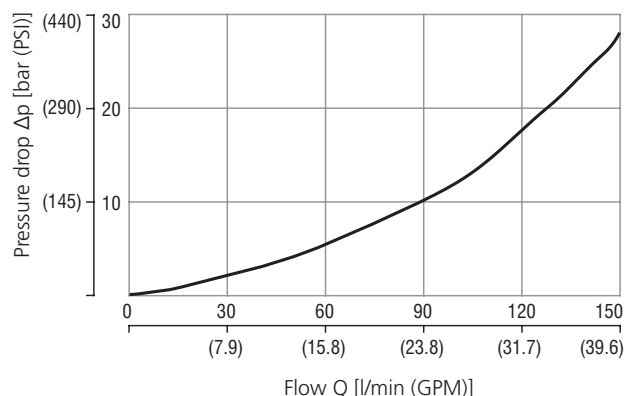
Reducing - relieving pressure related to flow rate

Relieving function A-T / Reducing function P-A



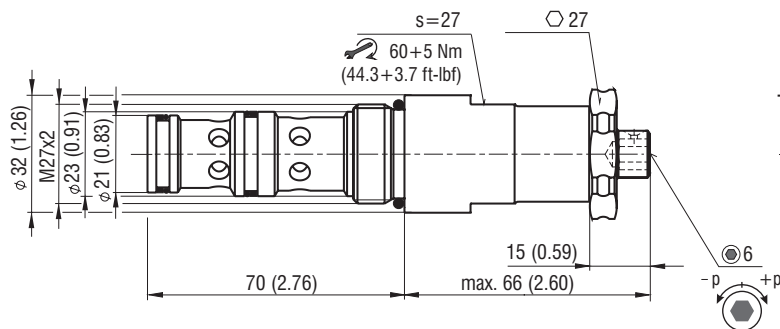
Pressure drop related to flow rate

Flow direction P-A
Fully open valve cross section

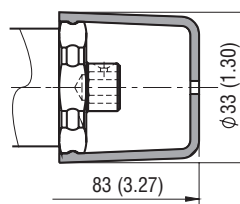


Dimensions in millimeters (inches)

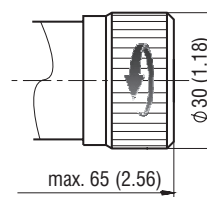
Model S



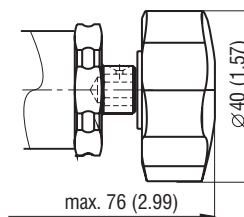
Model T



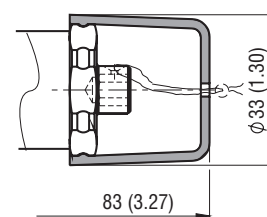
Model RS



Model RP



Model L



Ordering Code

VRN2-10 / S - [] [] [] - []

Pressure reducing - relieving valve, spool-type, pilot-operated M27x2

Model screw-in cartridge

Pressure range
 up to 63 bar (910 PSI) 6
 up to 100 bar (1450 PSI) 10
 up to 160 bar (2320 PSI) 16
 up to 210 bar (3045 PSI) 21

Surface treatment
 A zinc-coated (ZnCr-3), ISO 9227 (240 h)
 B zinc-coated (ZnNi), ISO 9227 (520 h)

No designation V

Seals
 NBR
 FPM (Viton)

Adjustment option
 S allen key (hex. 6), without protective cap
 T allen key (hex. 6), with protective cap
 RS hand screw, metal
 RP hand screw, plastic
 L allen key (hex. 6), with protective cap, sealable (lockwire holes)