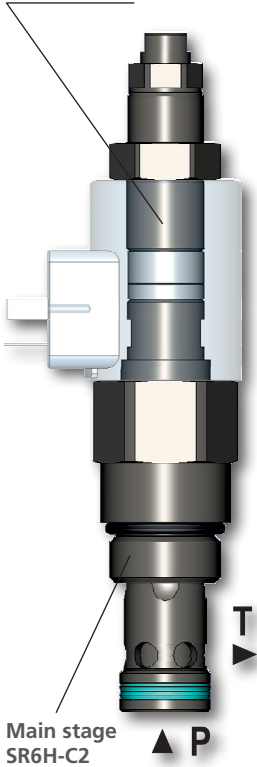


**SR4E2-C2**

1 1/16-12 UN • Q<sub>max</sub> 180 l/min (48 GPM) • p<sub>max</sub> 350 bar (5100 PSI)

Pilot stage  
SR1E2-A2



Main stage  
SR6H-C2

**Technical Features**

- › Screw-in cartridge pilot operated pressure relief valve
- › Solenoid operated remote switching between minimum and maximum set pressure
- › Possible combined function of pressure relief and unloading valve
- › Five pressure ranges with a maximum settable pressure of 350 bar
- › Excellent stability throughout the flow range to 180 l/min
- › Low hysteresis and accurate pressure control
- › Easily interchangeable solenoid coil and easy connector positioning
- › The valve is zinc-coated with corrosion protection 520 h in NSS acc. to ISO 9227

**Functional Description**

Screw-in cartridge pressure relief valve, pilot operated, protects the connected circuit against pressure overloading. The input system pressure is permanently compared with mechanically adjusted cracking pressure. The system pressure higher than set cracking pressure opens the valve and unloads the circuit by connection to the tank. Additionally, it is possible to mechanically adjust two values of cracking pressure with the help of adjusting screws built into the end plug of the solenoid actuating system. The two set pressure values can be remotely switched by solenoid. When the solenoid is switched on the valve is set to maximum pressure. The maximum adjustable pressure is defined by pressure range of valve. The minimum circuit pressure can be set from 2,5 bar to the set maximum pressure. The valve can be used in two ways – as a switcher between two set pressure values or as a combined relief – unloading valve when one pressure value is adjusted on min. system pressure 2,5 bar.

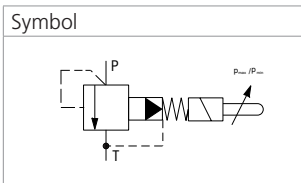
The complete valve consists of direct acting poppet valve with, main spool valve with connecting thread 1 1/16-12 UN and a control solenoid with two adjusting screws.

CAUTION: A pressure change in T channel will cause a change of the set cracking pressure of 1:1.

**Technical Data**

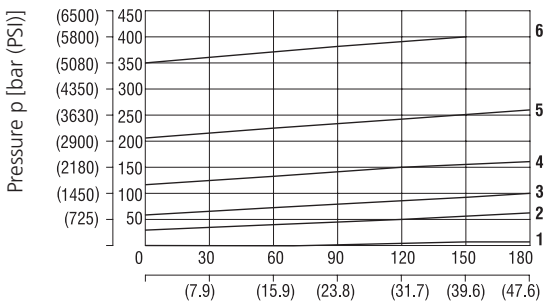
Valve size / Cartridge cavity		1 1/16-12 UN-2A / C2 (VC12-2)
Max. flow	l/min (GPM)	180 (47.6)
Max. operating pressure	bar (PSI)	350 (5080)
Max. pressure (port T)	bar (PSI)	100 (1450)
Min. adjustable pressure	bar (PSI)	2,5 (36.3)
Fluid temperature range (NBR)	°C (°F)	-30 ... +80 (-22 ... 176)
Fluid temperature range (FPM)	°C (°F)	-20 ... +80 (-4 ... 176)
Ambient temperature range (NBR)	°C (°F)	-30 ... +50 (-22 ... 122)
Ambient temperature range (FPM)	°C (°F)	-20 ... +50 (-4 ... 122)
Supply voltage tolerance	%	AC, DC ± 10
Max. switching frequency	1/h	5 000
Weight	kg (lbs)	0,69 (1.52)
Mounting position: If possible, the valve should be mounted with the coil vertically downward.		
		Datasheet
General information		GI_0060
Coil types		C_8007
Valve bodies	In-line mounted	SB_0018
	Sandwich mounted	SB-06_0028
Cavity details / Form tools		SMT_0019
Spare parts		SP_8010
		Type
Products and operating conditions		C19B*
SB-C2*		SB-C2*
SB-*C2*		SB-*C2*
SMT-C2*		SMT-C2*

Symbol



**Characteristics** measured at v = 32 mm<sup>2</sup>/s (156 SUS)

**Relief pressure related to flow rate**

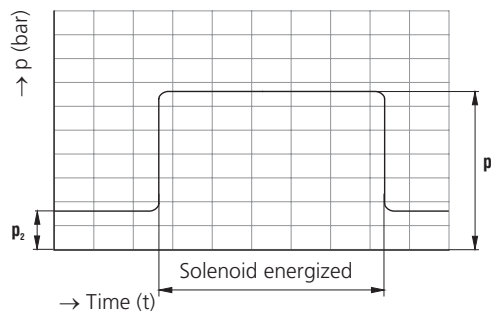


Pressure range	Min. pressure setting	3	6	12	21	35
1	2	3	4	5	6	
Solenoid de-energized Typical performance						

**Example showing the adjustable pressures p<sub>1</sub> and p<sub>2</sub> (p<sub>1</sub> ≥ p<sub>2</sub>)**

p<sub>1</sub> (p<sub>max</sub>, relief pressure) is set as the higher working pressure (solenoid energized)

p<sub>2</sub> (p<sub>min</sub>, vented pressure) is set as a lower working pressure (solenoid de-energized)

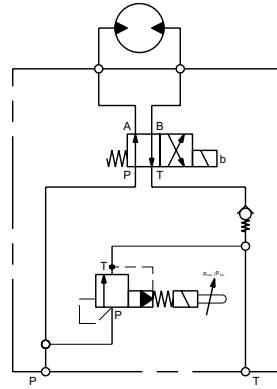
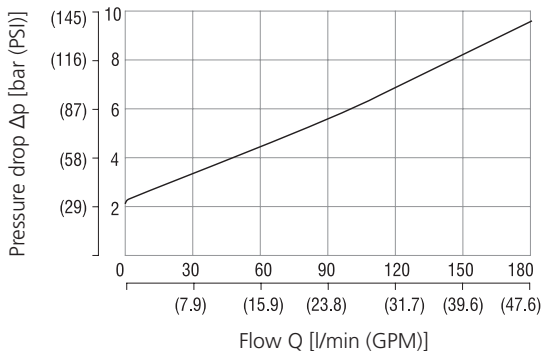


**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Application example**

**Pressure drop related to flow rate**

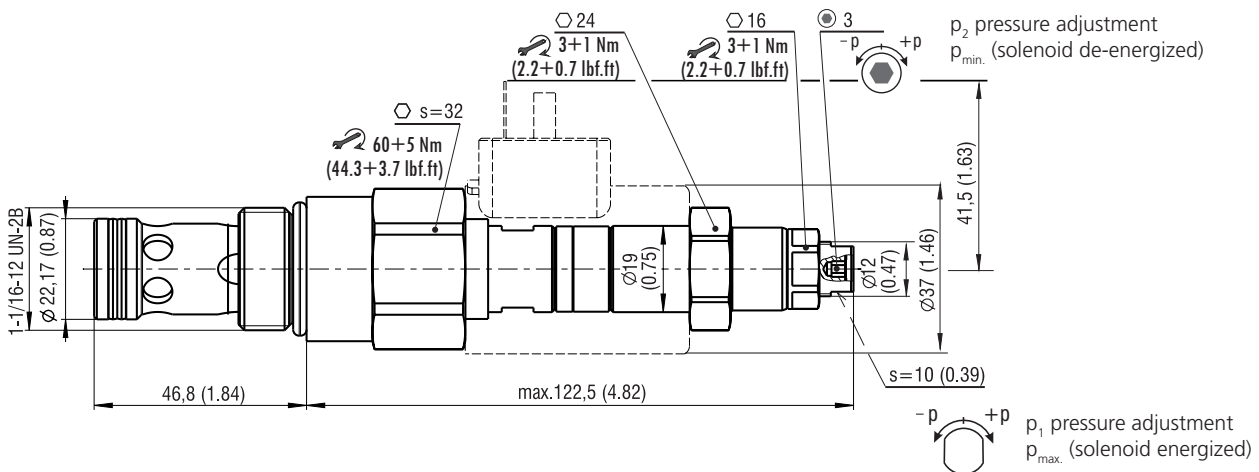
0 % of control current, P-T direction



The valve is used to unload a pump to tank with a very low pressure drop. This results in less heating of the oil and therefore lower energy costs for the user.

$p_1$  ( $p_{\text{max}}$ ) must be set before  $p_2$  ( $p_{\text{min}}$ ). To set  $p_1$ , the solenoid is energized and the pressure adjusted with a flat wrench (size 10). The solenoid is then de-energized and the lower pressure adjusted with an allen key (hex. 3).

**Dimensions** in millimeters (inches)



**Ordering Code**

SR4E2 - C2 / H   - B

Pressure relief solenoid-operated On/Off valve, piloted

Valve cavity  
1 1/16-12 UN (VC12-2)

Model  
High performance

Pressure range

up to 30 bar (440 PSI)	3
up to 60 bar (870 PSI)	6
up to 120 bar (1740 PSI)	12
up to 210 bar (3050 PSI)	21
up to 350 bar (5080 PSI)	35

Surface treatment  
zinc-coated (ZnNi), ISO 9227 (520 h)

No designation  
V

Seals  
NBR  
FPM (Viton)

**Factory setting:**

If the valve does not have a specific setting in accordance with the customer's order, standard valves are set to a minimum value of approx 2.5 bar after function tests.