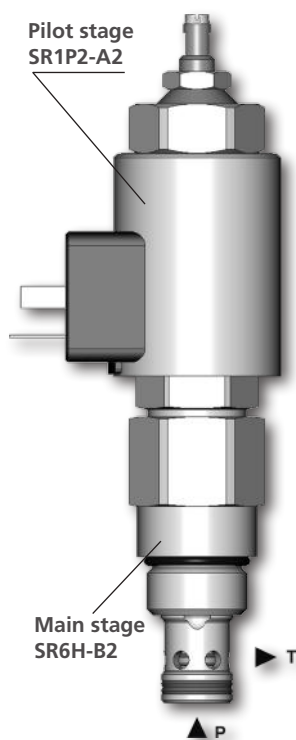


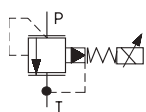
Proportional Pressure Control Valve, Relieving, Pilot Operated

SR4P2-B2

7/8-14 UNF • Q_{max} 80 l/min (21 GPM) • p_{max} 350 bar (5100 PSI)



Symbol



Technical Features

- › Increasing pressure output proportional with increasing DC current input
- › Low hysteresis, accurate pressure control and low pressure drop
- › Wide pressure range up to 350 bar
- › High flow capacity
- › Solenoid electrical terminal option acc. to EN 175301-803-A, AMP Junior Timer, or Deutsch DT04-2P
- › 12 or 24 V DC coils
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

A pilot operated proportional pressure relief spool valve in the form of a screw-in cartridge. The valve is designed for continuous regulation of system pressure. The complete valve consists of a pilot stage SR1P2-A2 and a main stage with connection 7/8-14 UNF. To set the minimum cracking pressure use the adjusting screw ($s=5$) which incorporates also the air bleed screw. Back pressure on port T becomes additive to the pressure setting of the valve. Air bleeding is necessary for the correct function of the valve.

Installation: When possible, the valve should be mounted below the reservoir oil level. This will keep oil in the actuator at all times, preventing instability caused by air enclosures. If this is not possible, mount the valve for best results vertically downward with proper air bleeding.

Technical Data

Valve size / Cartridge cavity		7/8-14 UNF-2A / B2 (C-10-2)	
Max. operating pressure (port P)	bar (PSI)	350 (5080)	
Max. operating pressure (port T)	bar (PSI)	100 (1450)	
Max. flow	l/min (GPM)	80 (21.1)	
Fluid temperature range (NBR)	°C (°F)	-30...+120 (-22...+248)	
Fluid temperature range (FPM)	°C (°F)	-20...+120 (-4...+248)	
Ambient temperature range	°C (°F)	-30...+80 (-22...+176)	
Min. setting pressure	bar (PSI)	7 bar (101.5 PSI) for 5 l/min (1.32 GPM)	
Hysteresis	%	< 5	
Solenoid data			
Supply voltage	V	12 DC	24 DC
Max. current	A	1	0.6
Rated resistance at 20 °C (68 °F)	Ω	6.5±5 %	20.6±5 %
Duty cycle	%	100	
Optimal PWM frequency	Hz	250	
Quenching diode		BZW06-19B	BZW06-33B
Enclosure type acc. to EN 60529**		(acc.to terminal type) IP65 / IP67 / IP69K	
Weight with solenoid	kg (lbs)	0.58 (1.28)	
	Data Sheet	Type	
General information	GI_0060	Products and operating conditions	
Coil types	C_8007	C19B*	
Valve bodies	In-line mounted SB_0018	SB-B2*	
Cavity details / Form tools	SMT_0019	SMT-B2*	
Spare parts	SP_8010		

**The indicated IP protection level is only reached with a properly mounted connector.

Dimensions in millimeters (inches)

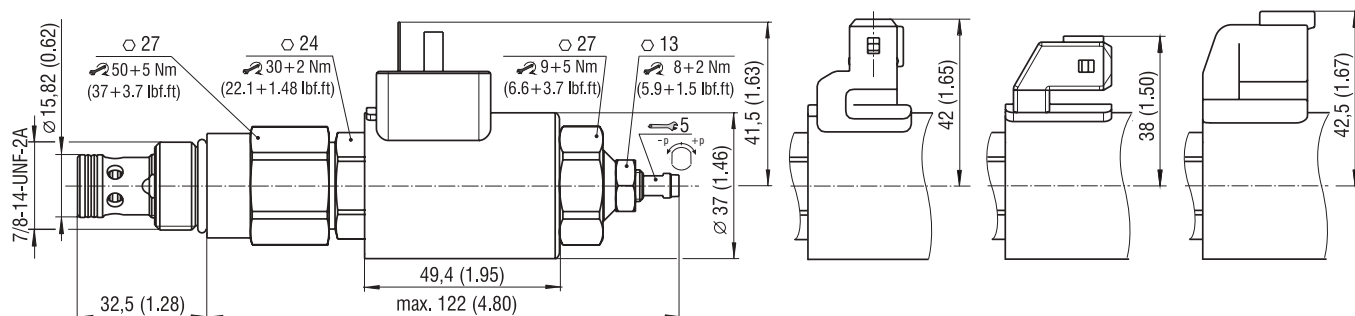
Connector type

E1, E2 - IP65
EN 175301-803-A

E3, E4 - IP67
AMP Junior
Timer - radial

E3A, E4A - IP67
AMP Junior
Timer - axial

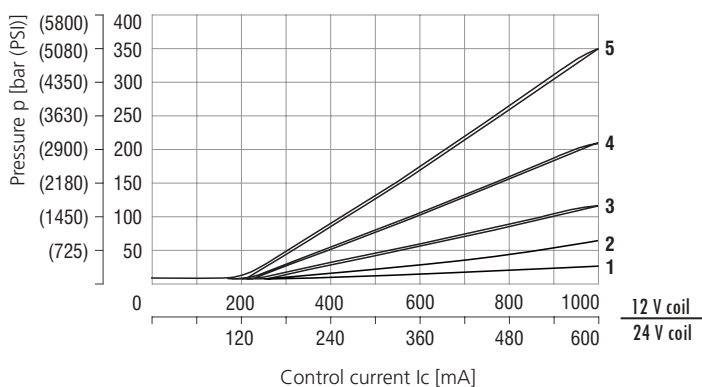
E12A, E13A - IP67 / IP69K
Deutsch DT04-2P



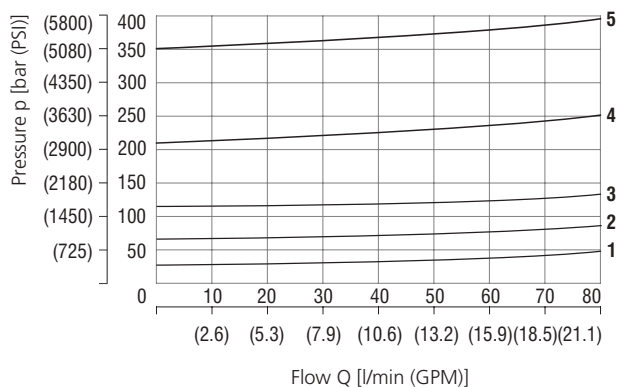
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Relief pressure related to control signal

$Q=5 \text{ l/min}$ (1.32 GPM), pressure in port T=0 bar, PWM 160Hz



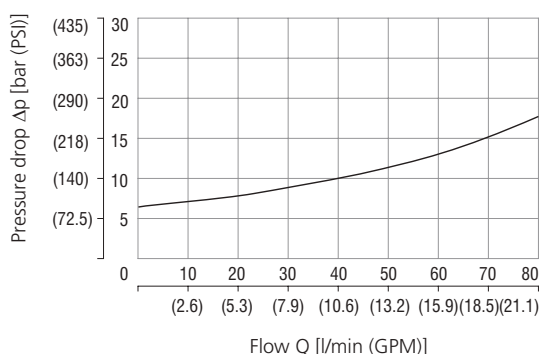
Pressure range	3	6	12	21	35
	1	2	3	4	5

Relief pressure related to flow rate


Pressure range	3	6	12	21	35
	1	2	3	4	5

Pressure drop related to flow rate

0% of control current, P-T direction


Attention:

The proportional pressure relief valve is not mechanically protected and it does not perform the relief valve function.

Ordering Code
SR4P2 - B2 / H

Proportional pressure control valve, relieving, pilot operated

Valve cavity
7/8-14 UNF-2A (C-10-2)

Model
High performance

Max. regulated pressure

up to 30 bar (435 PSI)	3
up to 60 bar (870 PSI)	6
up to 120 bar (1740 PSI)	12
up to 210 bar (3046 PSI)	21
up to 350 bar (5076 PSI)	35

Supply voltage / max. current

12 V DC / 1.0 A	12
24 V DC / 0.6 A	24

Main stage ordering key: SR6H-B2/HV

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)

Connector type
E1 EN 175301-803-A
E2 E1 with quenching diode
E3 AMP Junior Timer - radial direction (2 pins; male)
E4 E3 with quenching diode
E3A AMP Junior Timer - axial direction (2 pins; male)
E4A E3A with quenching diode
E12A Deutsch DT04-2P - axial direction
E13A E12A with quenching diode

For other solenoid terminals see data sheet No. 8007