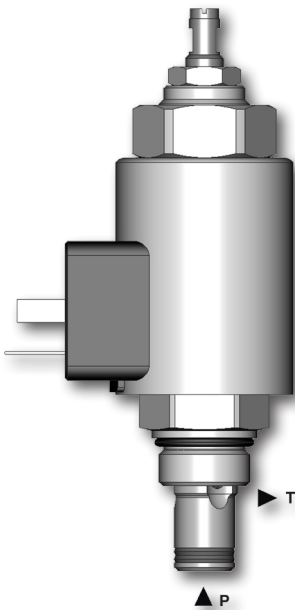


SRN1P1-A2

 3/4-16 UNF • Q_{max} 1.5 l/min (0.40 GPM) • p_{max} 350 bar (5100 PSI)


Technical Features

- › Decreasing pressure output proportional with increasing DC current input
- › Low hysteresis, accurate pressure control
- › Wide pressure range up to 350 bar
- › Mechanical adjustment of minimum cracking pressure
- › Solenoid electrical terminal option acc. to EN 175301-803-A, AMP Junior Timer or Deutsch DT04-2P
- › 12 or 24 V DC coils
- › Usable as pilot stage of SRN4P1-B2 and SPN4P1-B3 proportional valves
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

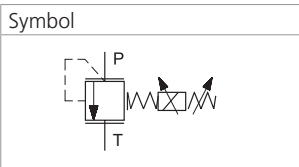
Functional Description

A direct operated proportional poppet pressure relief valve in the form of a screw-in cartridge. The valve is designed for continuous regulation of system pressure. It is used mostly as a pilot stage. 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		3/4-16 UNF-2A / A2 (C-8-2)	
Max. operating pressure (port P)	bar (PSI)	350 (5080)	
Max. operating pressure (port T)	bar (PSI)	100 (1450)	
Max. flow	l/min (GPM)	1.5 (0.40)	
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)	
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	160 - 200	
Quenching diode		BZW06-19B	BZW06-33B
Enclosure type acc.to EN 60529**		IP65 / IP67 / IP69K	
Weight with solenoid	kg (lbs)	0.44 (0.97)	
Data Sheet		Type	
General information		GI_0060	
Coil types		C_8007	
Valve bodies		SB_0018	
Cavity details / Form tools		SMT_0019	
Spare Parts		SP_8010	
In-line mounted		SB_04(06)_0028	
Sandwich mounted		SB-*A2*	
Cavity details / Form tools		SMT_0019	
Spare Parts		SP_8010	

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



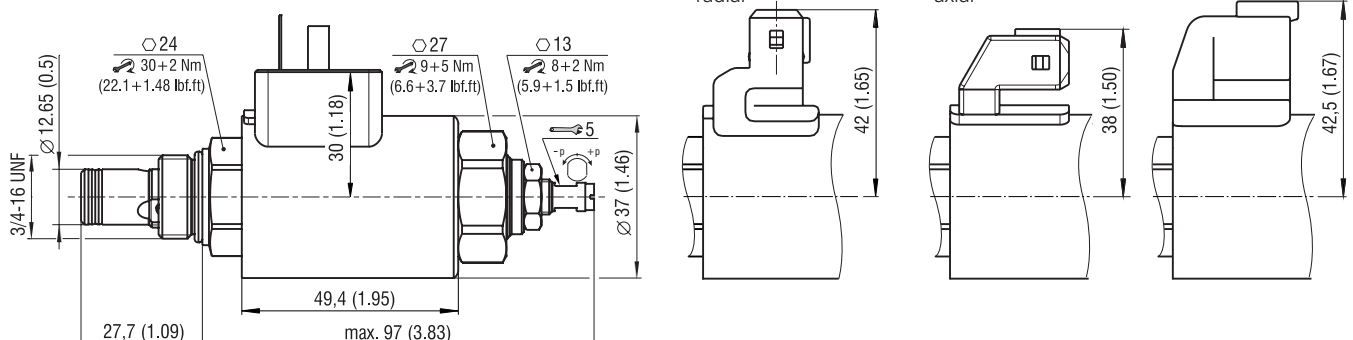
Dimensions in millimeters (inches)

Connector type

 E1, E2 - IP65
 EN 175301-803-A

 E3, E4 - IP67
 AMP Junior Timer
 - radial

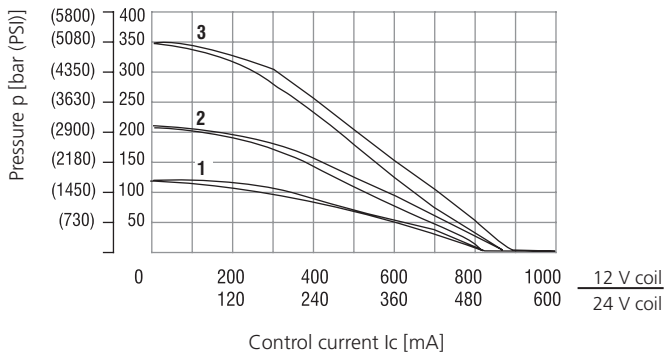
 E3A, E4A - IP67
 AMP Junior Timer
 - axial

 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

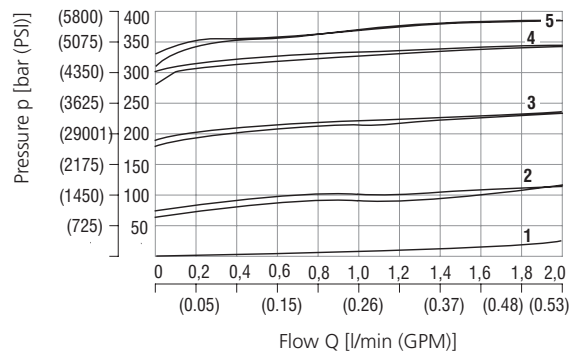
$Q=0.2 \text{ l/min}$ (0.05 GPM), pressure in port T=0 bar, PWM 160Hz



Pressure range	12	21	35
	1	2	3

Relief pressure related to flow rate

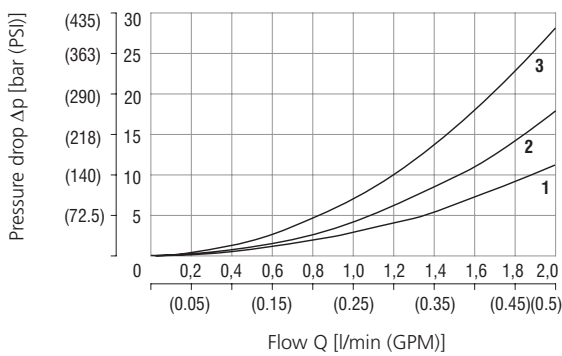
Pressure range 35, various control currents



Control current	1	2	3	4	5
	100 % I_{max}	75 % I_{max}	50 % I_{max}	25 % I_{max}	0 % I_{max}

Pressure drop related to flow rate

100% of control current, P-T direction



Pressure range	12	21	35
	1	2	3

Ordering Code

SRN1P1 - A2 / H - - - -

Proportional pressure control valve, relieving, direct-acting, inverted

Valve cavity
3/4-16UNF (C-8-2)

Model
High performance

Max. regulated pressure
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 A **12**
24 V DC / 0.6 A **24**

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

Seals
No designation NBR
V FPM (Viton)

Connector type
EN 175301-803-A
E1 E1 with quenching diode
E2 E2 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