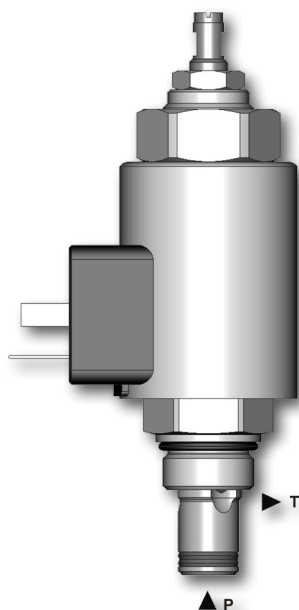


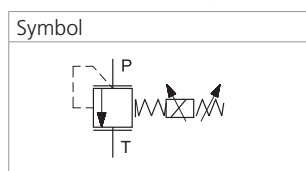
Proportional Pressure Control Valve, Relieving, Direct-Acting, Inverted
SRN1P1-A2

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)	
Max. operating pressure (port T)		bar (PSI)	
Max. flow		l/min (GPM)	
Fluid temperature range (NBR)		°C (°F)	
Fluid temperature range (FPM)		°C (°F)	
Ambient temperature range		°C (°F)	
Hysteresis		%	
Solenoid data			
Supply voltage		V	
Max. current		A	
Rated resistance at 20 °C (68 °F)		Ω	
Duty cycle		%	
Optimal PWM frequency		Hz	
Quenching diode			
Enclosure type acc.to EN 60529**			
Weight with solenoid		kg (lbs)	
		Data Sheet	
General information		GI_0060	
Coil types		C_8007	
Valve bodies	In-line mounted	SB_0018	
	Sandwich mounted	SB-04(06)_0028	
Cavity details / Form tools		SMT_0019	
Spare Parts		SP_8010	

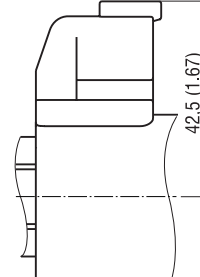
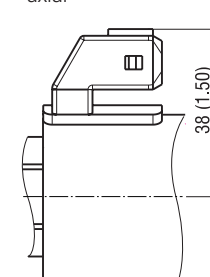
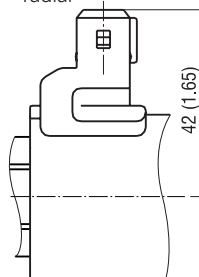
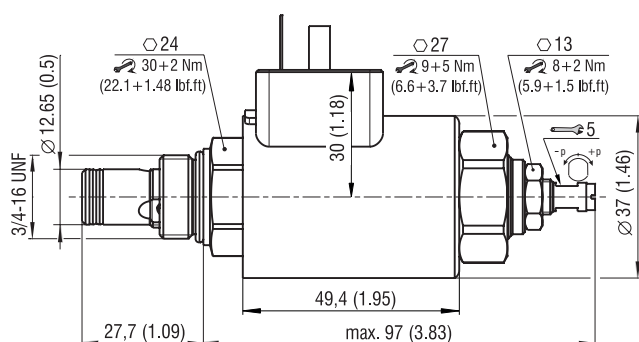
**The indicated IP protection level is reached only with a properly mounted connector.

Dimensions in millimeters (inches)
Connector type

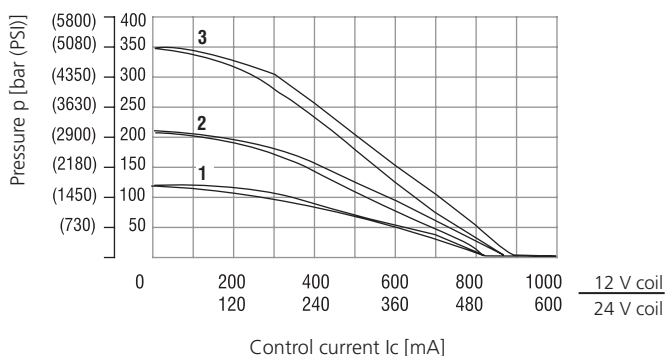
E1, E2 - IP65
EN 175301-803-A

E3, E4 - IP67
AMP Junior Timer
- radial

E3A, E4A - IP67
AMP Junior Timer
- axial

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


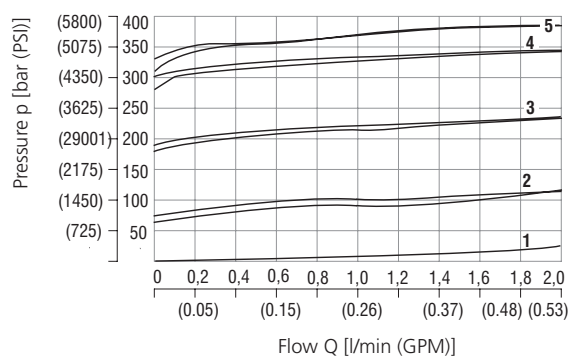
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

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

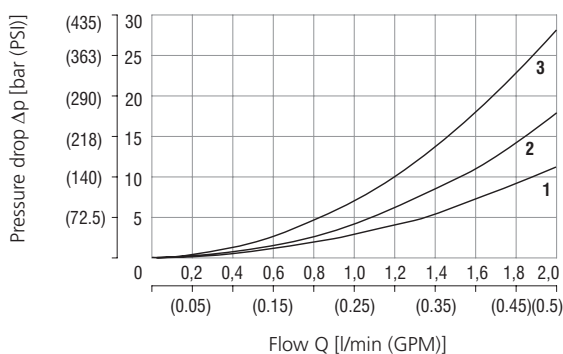
Pressure range 35, various control currents



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 AMP Junior Timer - radial direction (2 pins; male)
E3 E3 with quenching diode
E4 AMP Junior Timer - axial direction (2 pins; male)
E3A E3A with quenching diode
E4A Deutsch DT04-2P - axial direction
E12A E12A with quenching diode
E13A

For other solenoid terminals see data sheet No. 8007