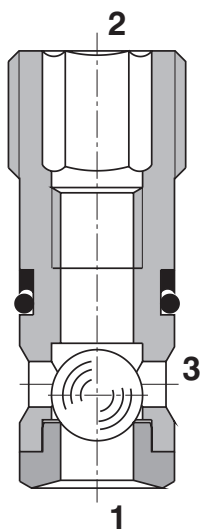


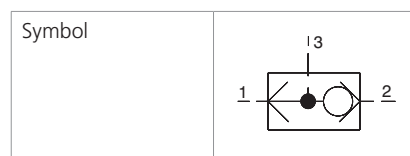
Load Shuttle Valve, Ball Type
LV1-043

 G1/8 • Q_{max} 8 l/min (2 GPM) • p_{max} 500 bar (7300 PSI)

Technical Features

- › Rapid response to changes in load direction
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for durable fast-cycling
- › Compact design for a restricted installation space
- › In the standard version, the valve is without surface coating

Functional Description

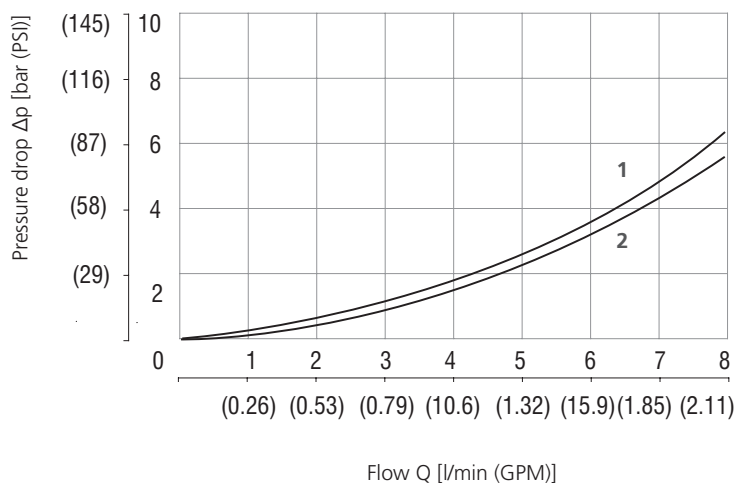
A high pressure shuttle valve in the form of a screw-in cartridge. This valve prioritizes the respective higher pressure signal from either port 1 or 2. Tightness between ports 1 and 3 is ensured by a sharp-edge steel valve seat.


Technical Data

Valve size / Cartridge cavity		G1/8 / QY3
Max. flow	l/min (GPM)	8 (2.1)
Max. operating pressure	bar (PSI)	500 (7250)
Fluid temperature range (NBR)	°C (°F)	-30 +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 +120 (-4 ... +248)
Weight	kg (lbs)	0.01 (0.022)

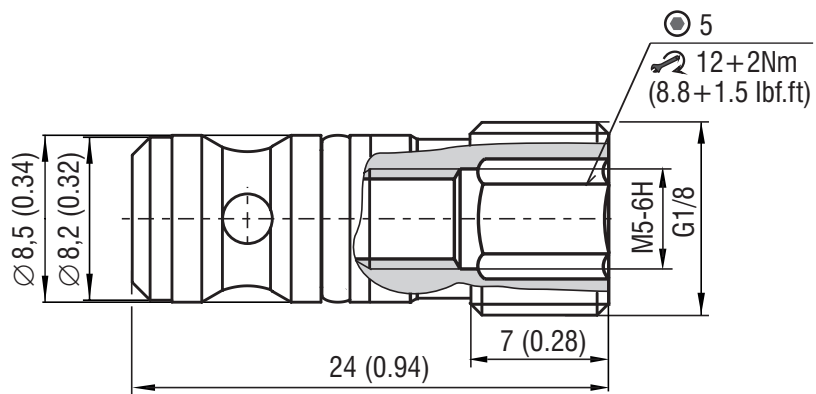
		Datasheet	Type
General information		GI_0060	Products and operating conditions
Valve bodies	In-line mounted	SB_0018	On request
Cavity details		SMT_0019	SMT-QY3*
Spare parts		SP_8010	

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

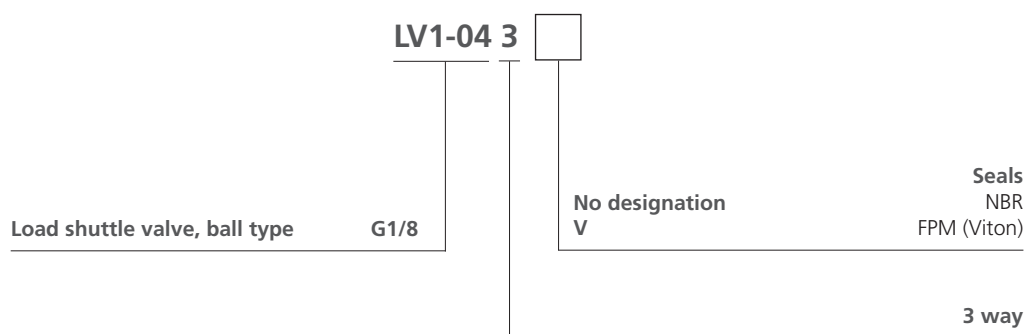
Pressure drop related to flow rate


	Flow direction
1	2→3
2	1→3

Dimensions in millimeters (inches)



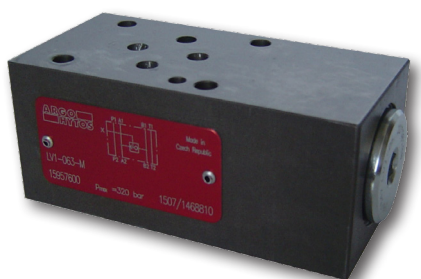
Ordering Code



Load Shuttle Valve, Ball Type, Modular

LV1-063/M

Size 06 (D03) • Q_{max} 40 l/min (11 GPM) • p_{max} 320 bar (4600 PSI)

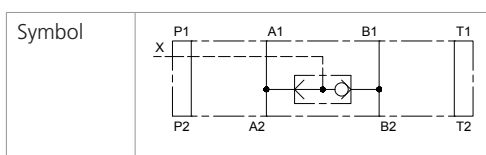


Technical Features

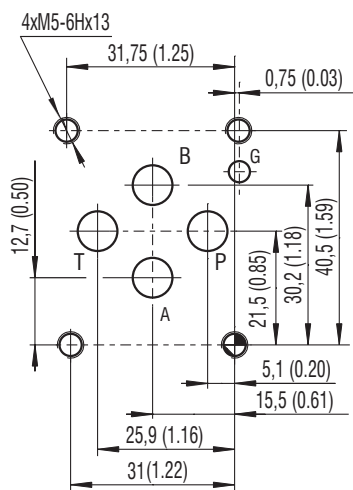
- › Load shuttle valve, ball type with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 03)
- › Sandwich plate design for use in vertical stacking assemblies
- › Rapid response to changes in load direction
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for durable fast-cycling
- › High flow capacity
- › In the standard version, the valve housing is phosphated and steel parts are zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

This high pressure shuttle valve in sandwich design is used in vertical stack assemblies to prioritize flows of higher pressure over those with lower pressure. Tightness between ports 1 and 3 is ensured by a sharp-edge steel valve seat.



ISO 4401-03-02-0-05



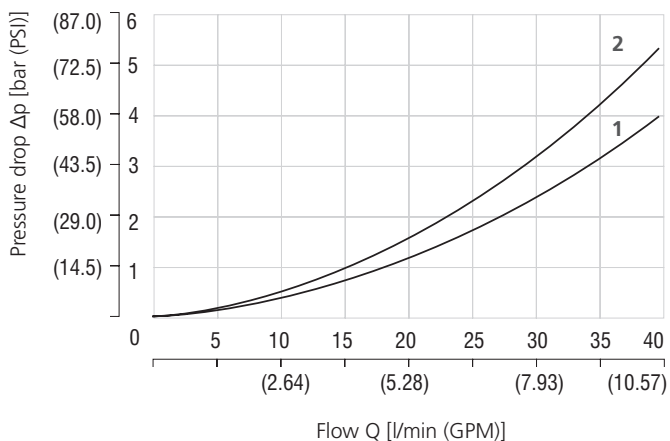
Ports P, A, B, T max. \varnothing 7.5 mm (0.29)

Technical Data

Valve size	06 (D03)	
Max. flow	l/min (GPM)	40 (10.6)
Max. operating pressure	bar (PSI)	320 (4640)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Weight	kg (lbs)	1.17 (2.58)
	Datasheet	Type
General information	GI_0060	Products and operating conditions
Mounting interface	SMT_0019	Size 06
Spare parts	SP_8010	

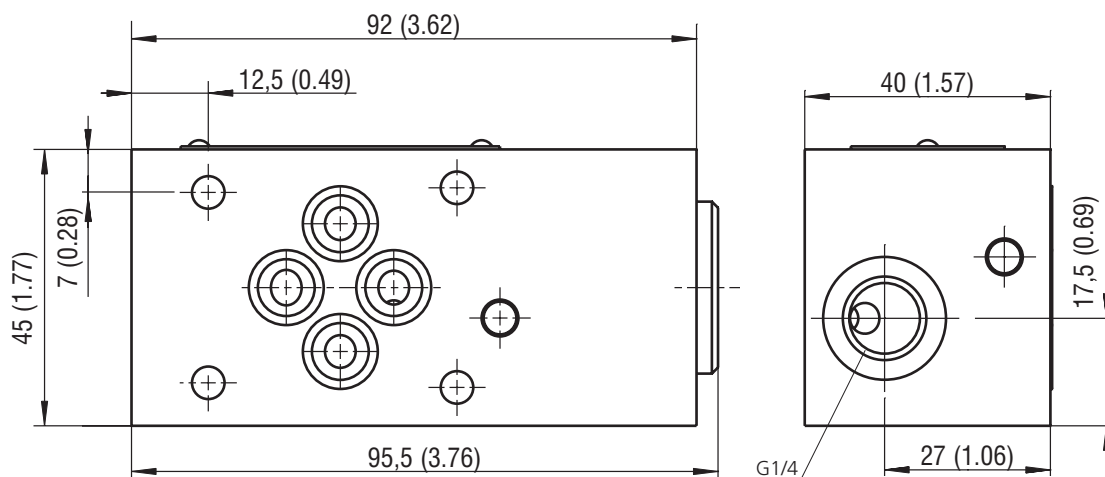
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Pressure drop related to flow rate



	Flow direction
1	A → X
2	B → X

Dimensions in millimeters (inches)



Ordering Code

LV1-063 / M -

Load shuttle valve, ball type, modular

Model
sandwich plate design

No designation

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

Surface treatment
standard

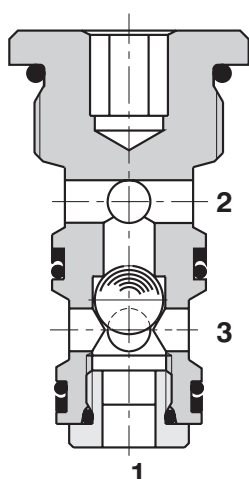
No designation
V

Seals
NBR
FPM (Viton)

Load Shuttle Valve, Ball Type

LV1-063/S

M22x1.5 • Q_{max} 40 l/min (11 GPM) • p_{max} 320 bar (4600 PSI)

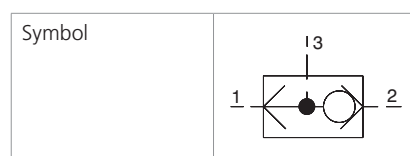


Technical Features

- › Rapid response to changes in load direction
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for durable fast cycling
- › High flow capacity
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

A high pressure shuttle valve in the form of a screw-in cartridge. This valve prioritizes the respective higher pressure signal from either port 1 or 2. Tightness between ports 1 and 3 is ensured by a sharp-edge steel valve seat.



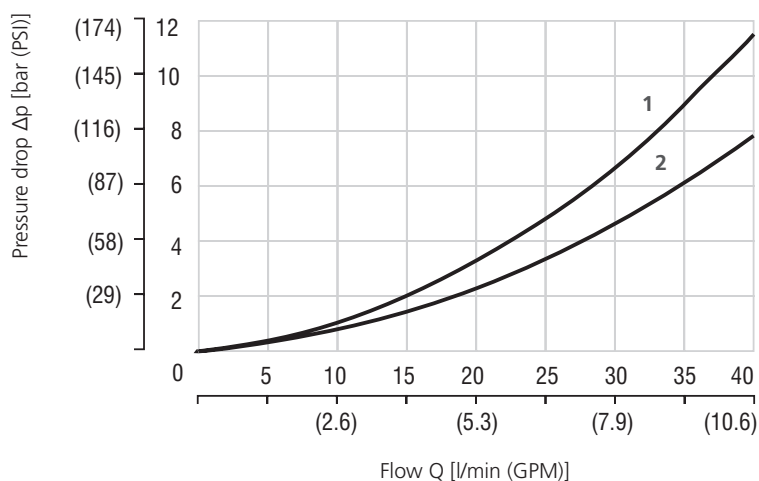
Technical Data

Valve size / Cartridge cavity		M22x1,5 / QF3
Max. flow	l/min (GPM)	40 (10.6)
Max. operating pressure	bar (PSI)	320 (4640)
Fluid temperature range (NBR)	°C (°F)	-30 +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 +120 (-4 ... +248)
Weight	kg (lbs)	0.078 (0.172)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Valve bodies	In-line mounted	SB-QF3*
	Sandwich mounted	LV1-063/M_HA 5030
Cavity details	SMT_0019	SMT-QF3*
Spare parts	SP_8010	

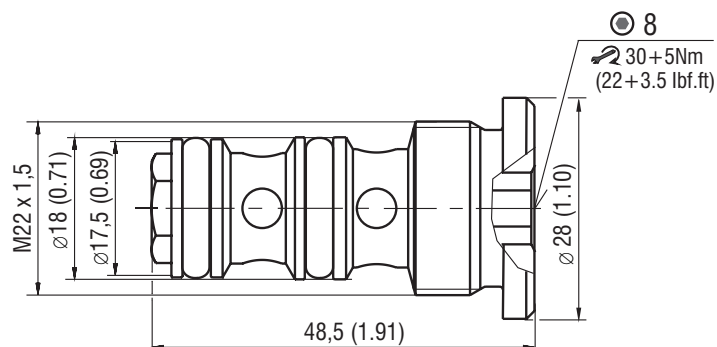
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Pressure drops Δp -Q



	Flow direction
1	1 → 3
2	2 → 3

Dimensions in millimeters (inches)



Ordering Code

LV1-063 / S -

Load shuttle valve, ball type
M22x1.5

Model
screw in cartridge

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

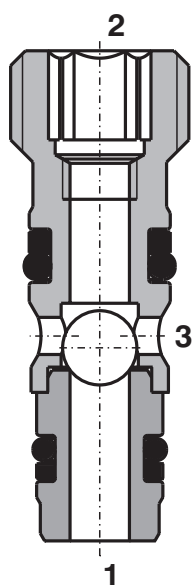
No designation
V

Seals
NBR
FPM (Viton)

Load Shuttle Valve Rubber Sealed Ports

LV2-043

M12x1,5 • Q_{max} 8 l/min (2 GPM) • p_{max} 500 bar (7300 PSI)

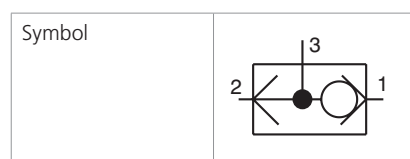


Technical Features

- › Hardened and precision working parts
- › Leak-free in closed position
- › Rapid response to changes in load direction
- › Compact size for a restricted installation space

Functional Description

A high pressure shuttle, screw-in, cartridge valve. Used for closing or opening hydraulic circuits to define priority of flow/direction given by a higher pressure circuit over a lower one. Tightness between all ports is ensured by a rubber seal.



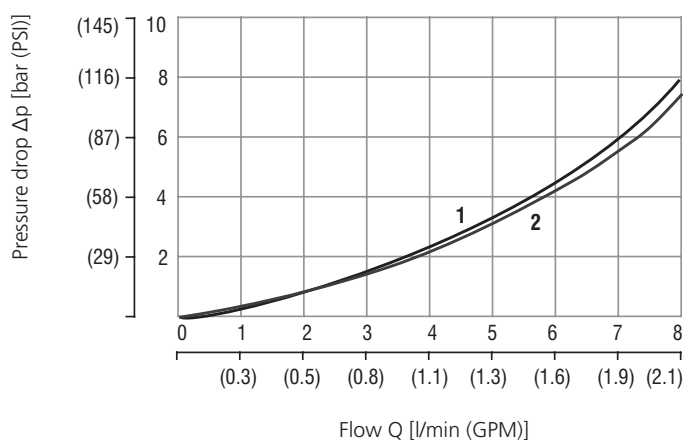
Technical Data

Valve size / Cartridge cavity		M12x1,5 / QD3
Max. flow rate	l/min (GPM)	8 (2.1)
Max. operating pressure	bar (PSI)	500 (7250)
Fluid temperature range (NBR)	°C (°F)	-30 +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 +120 (-4 ... +248)
Weight	kg (lbs)	0.01 (0.022)

	Data Sheet	Type
General information	GI_0060	Products and operating conditions
Bodies for valves	In-line mounted	On request
Cavity details	SMT_0019	SMT-QD3*
Spare parts	SP_8010	

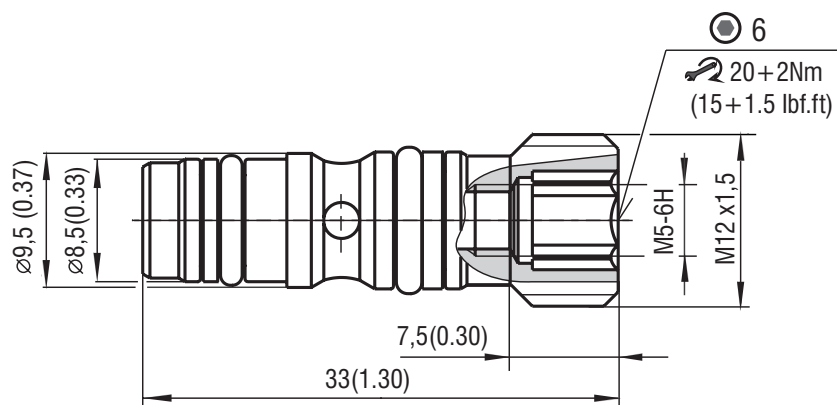
Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Pressure drops $p-\Delta Q$

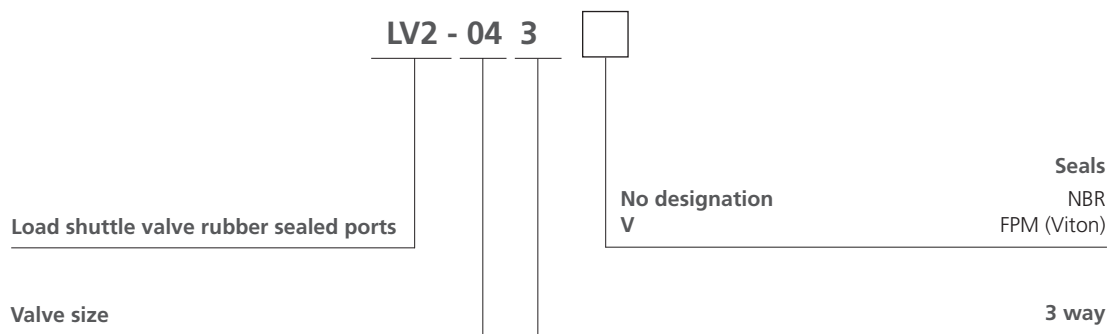


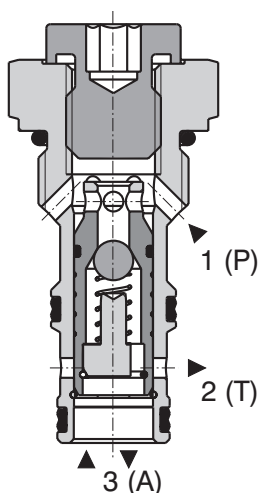
	Flow in direction
1	2 → 3
2	1 → 3

Dimensions in millimeters (inches)



Ordering Code

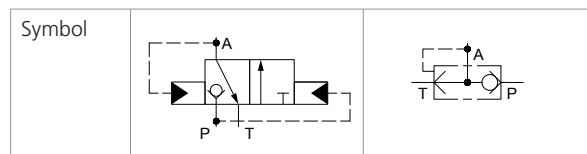



Technical Features

- › Rapid response to changes in load direction
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for durable fast-cycling
- › High flow capacity
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

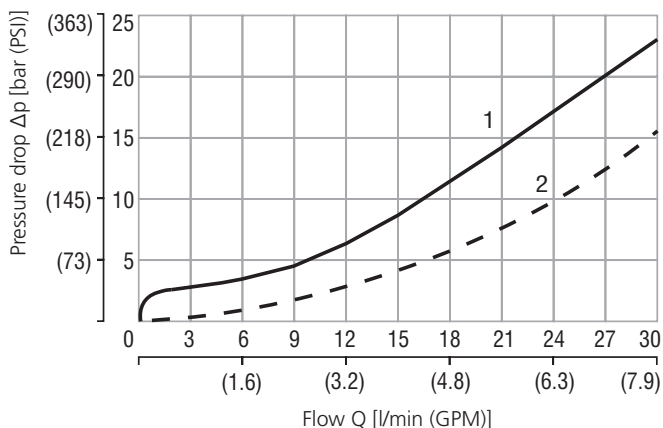
A poppet type hydraulic directional shuttle valve in the form of a screw-in cartridge for use in single acting cylinder applications. Pressure at port 1(P) opens the ball check valve, allowing fluid to pass to port 3(A). The poppet tightly closes the connection between ports 3(A) and 2(T). If there is no pressure at port 1(P), pressure at port 3(A) –via the cylinder return spring - causes the poppet to shift so that fluid can pass from 3(A) to 2(T) but not from 3(A) and 1(P).


Technical Data

Valve size / Cartridge cavity		3/4-16 UNF-2A / A3 (C-8-3)
Max. flow	l/min (GPM)	20 (5.3)
Max. operating pressure	bar (PSI)	250 (3630)
Cracking pressure	bar (PSI)	2 ± 0.5 (29 ± 7 PSI)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Weight	kg (lbs)	0.08 (0.18)

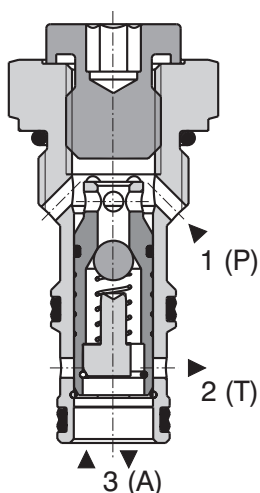
	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cartridge cavity / Form tools	SMT_0019	SMT-A3
Spare parts	SP_8010	

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

Pressure drop related to flow rate


	Flow direction
1	P (1) → A (3)
2	A (3) → T (2)

SH1F-A3

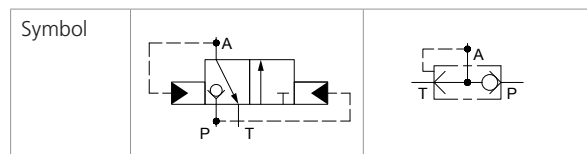
 3/4-16 UNF • Q_{max} 20 l/min (5 GPM) • p_{max} 250 bar (3600 PSI)


Technical Features

- › Rapid response to changes in load direction
- › Hardened precision parts
- › Sharp-edged steel seats for dirt-tolerant performance
- › Leak-free closing, suitable for durable fast-cycling
- › High flow capacity
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

A poppet type hydraulic directional shuttle valve in the form of a screw-in cartridge for use in single acting cylinder applications. Pressure at port 1(P) opens the ball check valve, allowing fluid to pass to port 3(A). The poppet tightly closes the connection between ports 3(A) and 2(T). If there is no pressure at port 1(P), pressure at port 3(A) –via the cylinder return spring - causes the poppet to shift so that fluid can pass from 3(A) to 2(T) but not from 3(A) and 1(P).



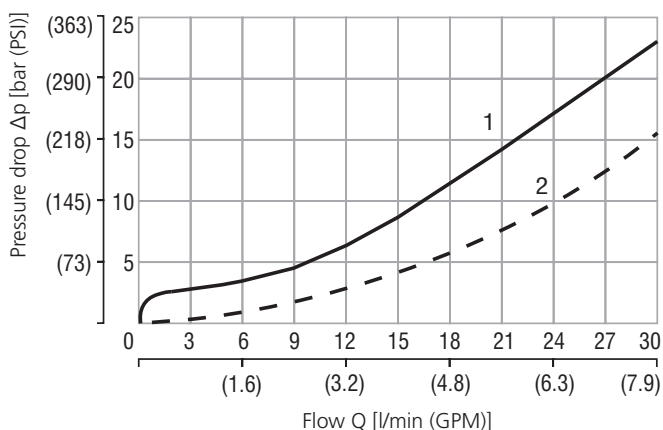
Technical Data

Valve size / Cartridge cavity		3/4-16 UNF-2A / A3 (C-8-3)
Max. flow	l/min (GPM)	20 (5.3)
Max. operating pressure	bar (PSI)	250 (3630)
Cracking pressure	bar (PSI)	2 ± 0.5 (29 ± 7 PSI)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Weight	kg (lbs)	0.08 (0.18)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cartridge cavity / Form tools	SMT_0019	SMT-A3
Spare parts	SP_8010	

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

Pressure drop related to flow rate



	Flow direction
1	P (1) → A (3)
2	A (3) → T (2)

