DSV Datasheet

DIAPHRAGM SHUT-OFF VALVE

PRESSURE TECH

Gas | Liquid | Diaphragm | Piston | Max Operating Pressure: 300 bar (4,350 psi) | KV 0.25

2-PORT DESIGN

4-PORT DESIGN

INTRODUCING THE DSV...

The DSV is a diaphragm shut-off valve and is designed for the safe, reliable and precise isolation of high purity and speciality gases across a wide range of demanding gas-handling applications.

It utilises a metal diaphragm and poppet sealing arrangement, providing reliable gas isolation while minimising the potential for contamination and external leakage.

The design is particularly suited to applications where gas purity, leak tightness and repeatable shut-off performance are critical.

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
	Chrome Plated Brass CW614N (UNS C38500)
Poppet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
	Chrome Plated Brass CW614N (UNS C38500)
Soft Seat	PCTFE (Kel-F)
Valve Spring	ASTM A240 301 Stainless Steel (UNS S30100)
Diaphragm	Hard rolled Stainless Steel
Handwheel	Anodised Aluminium
Filter	100 Microns

SPECIFICATIONS

Max. Operating Pressure	300 bar (4,350 psi)
KV	0.25
Design Proof Pressure	150% max. working pressure
Seat Leakage	< 1×10 E-6 mbar L/s (Helium)
External Leakage	< 1×10 E-9 mbar L/s (Helium)
Purity	≤ 6.0
Min/Max Temperatures	-25°C to +70°C (-13°F to 158°F)
Weights	2-Port: 0.3kg (0.66lbs) 4-Port: 0.62kg (1.37lbs)
Dimensions	See page 2

FEATURES AND BENEFITS

1 FOR HIGH PURITY GAS ≤ 6.0

Ensures the materials, design, and internal surface finish do not contaminate high purity gases.

2 ERGONOMIC DESIGN

Handwheel and body shape makes it easier for technicians to operate the valve.

3 EXCEPTIONAL REPEATABILITY

Designed for high reliability across a wide range of gases.

4 LOW FUGITIVE EMISSION

Low fugitive emissions in accordance with ISO 15848-1.

Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions and/or service related issues.
Pressure Tech Ltd support with product selection recommendations only - it is the users responsibility to ensure the product is suitable for their specific application requirements.

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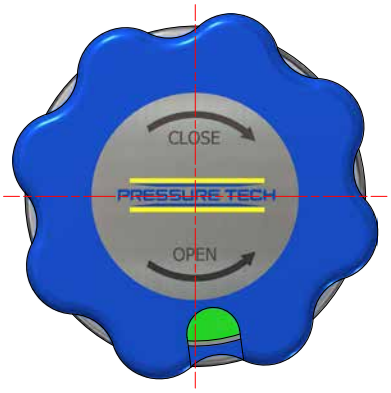
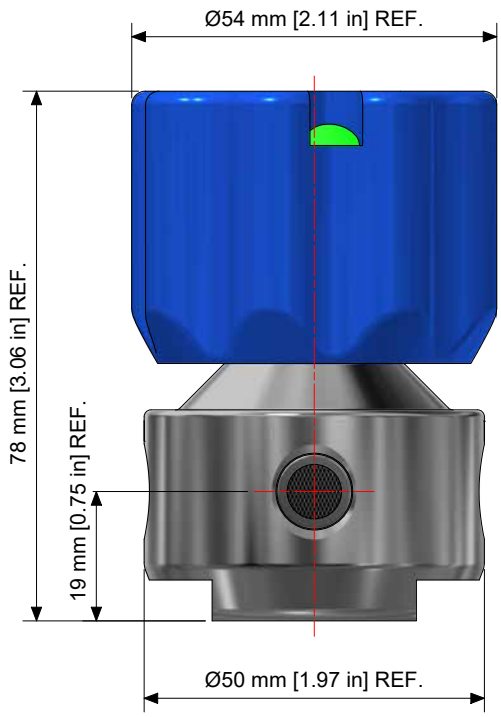
CLEANLINESS STANDARDS & SURFACE FINISH

All components are precision-cleaned to meet stringent cleanliness levels of 1mg/m², in accordance with ASTM G93/G93M, ASTM F331-13, and ISO 15001:2011. Brass products are electroplated as standard to enhance durability and corrosion resistance.

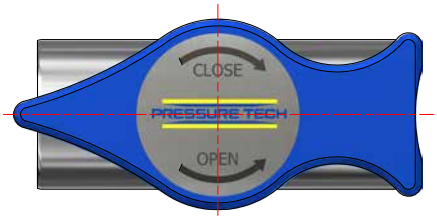
DRAWINGS AND INSTALLATION DIMENSIONS

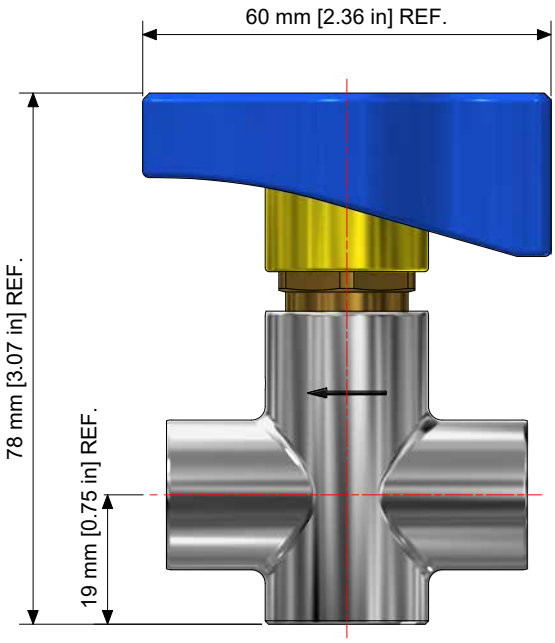
4 - PORTS





2 - PORTS





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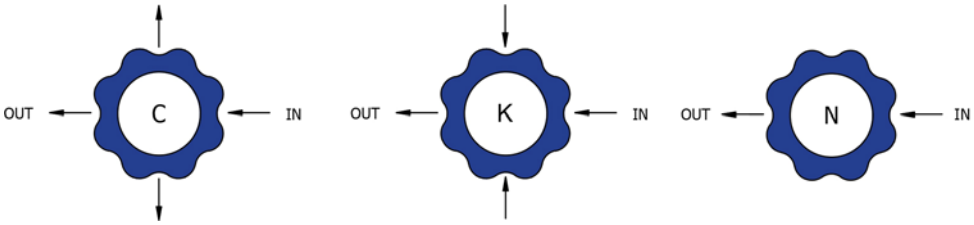
P&ID

PORTING CONFIGURATIONS



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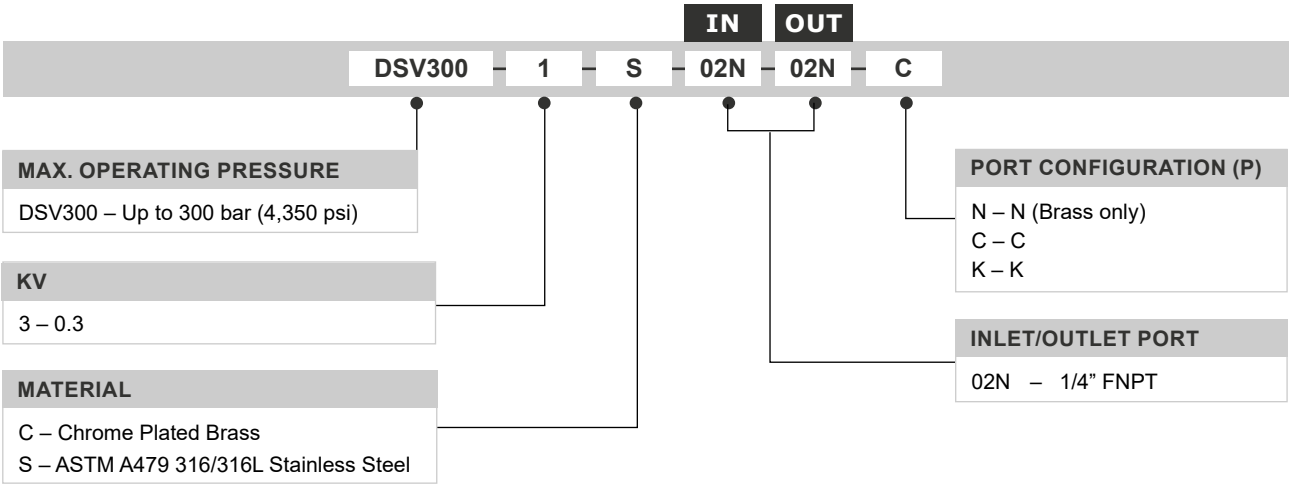
ORDERING INFORMATION

To build a Pressure Tech part number, simply combine the characters identified below in sequence:



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