

# Externally operated valves 2/2-way axial Type HP220

## Features



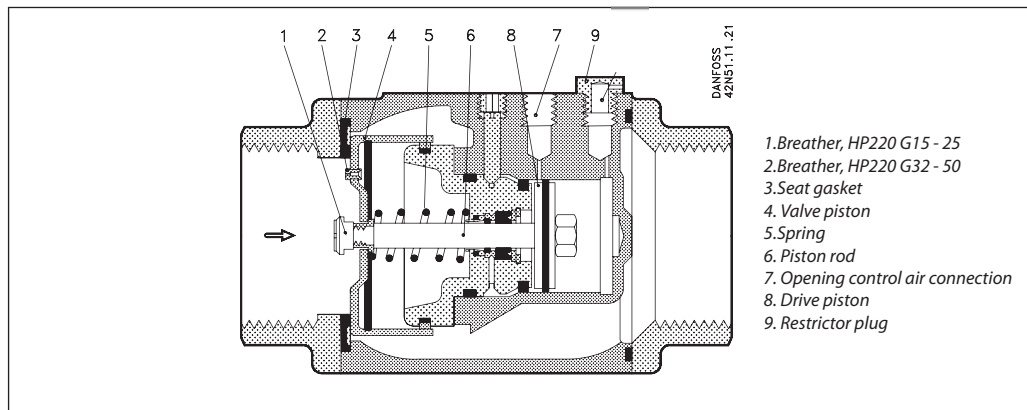
## HP220

- For robust industrial application:
  - large capacity
  - suitable for systems with many dirt particles
  - no minimum differential pressure required
  - max. viscosity up to 400 cSt
- For neutral liquid and gaseous media
- Flow range for water: Up to 174 m<sup>3</sup>/h
- Differential pressure: 0-10 bar
- Thread connections:
  - main connections from G 1/2 to G 2
  - control connection G 1/8
- HP220Y with spring return

## Technical data

Medium	Water / Air	Mineral oil	Trichlorethylene Perchloroethylene R11, R113
Pressure range	0 to 10 bar	0 to 10 bar	0 to 3.5 bar
Test pressure	16 bar	16 bar	16 bar
Medium temperature	0 to +60°C	0 to +100°C	0 to +80°C
Installation	Optional		
Viscosity	Max. 400 cSt		
Materials	Valve body: Gun metal, W.no. 2.1096.01 Piston rod: Stainless Steel, W.no. 1.4305 / AISI 430FR Valve insert: Brass,..... W.no. 2.0401 Drive piston: Brass,..... W.no. 2.0401 Valve piston: Stainless Steel, W.no. 1.4301 / AISI 304 Spring: Stainless Steel, W.no. 1.4568 Breather: HP220 G15 - 25: Stainless Steel, W. no. 1.4301 / AISI 304 HP220 G32 - 50: Brass,..... W.no. 2.0401 Flange: Brass,..... W.no. 2.0401 Seat gasket: FKM Sealing ring: PTFE Other seals: FKM		

Function



The valve is kept closed by the spring (5), which presses the valve piston (4) against the seat gasket (3). When pressure is applied to the opening control air connection (7), the drive piston (8), piston rod (6) and thus the valve piston (4) move to the right, and the valve is opened. The opening movement is dampened by the restrictor plug (9) and the breather (1, 2).

Note:

Time to open and to close can be reduced by enlarging the breather:

- On the HP220 G15-25 the breather can be expanded using a sharp object
- On the HP220 G32-50 the breather can be removed using a pair of pliers

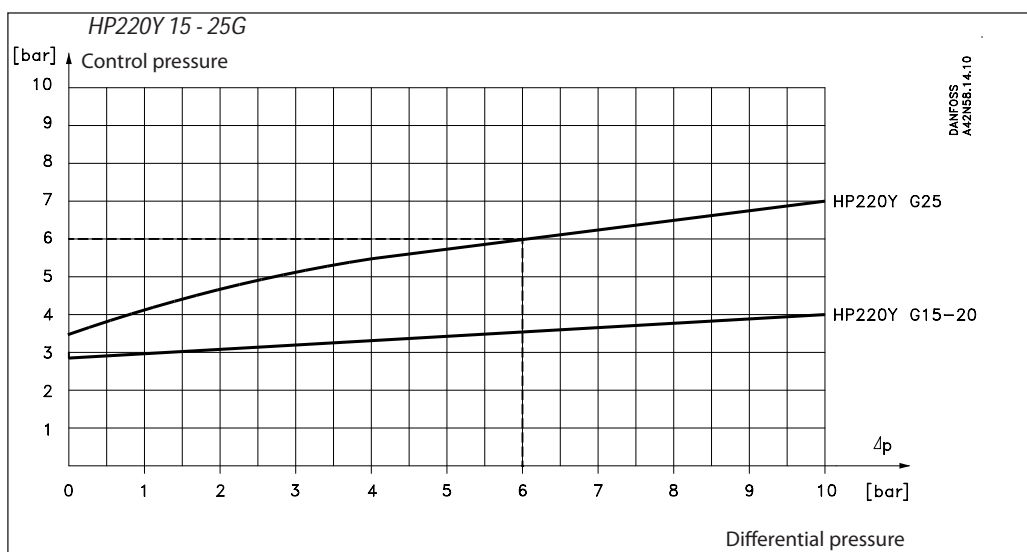
Ordering

Connection	k <sub>v</sub> - value [m <sup>3</sup> /h]	Type designation		Return type	Code no.
		Main type	Specification		
G ½	7	HP220Y 15G	G12F NC000	Spring	042N0172
G ¾	9	HP220Y 20G	G34F NC000		042N0182
G 1	15	HP220Y 25G	G1F NC000		042N0192
G 1 ¼	32	HP220Y 32G	G114F NC000		042N0202
G 1 ½	33	HP220Y 40G	G112F NC000		042N0212
G 2	55	HP220Y 50G	G2F NC000		042N0222

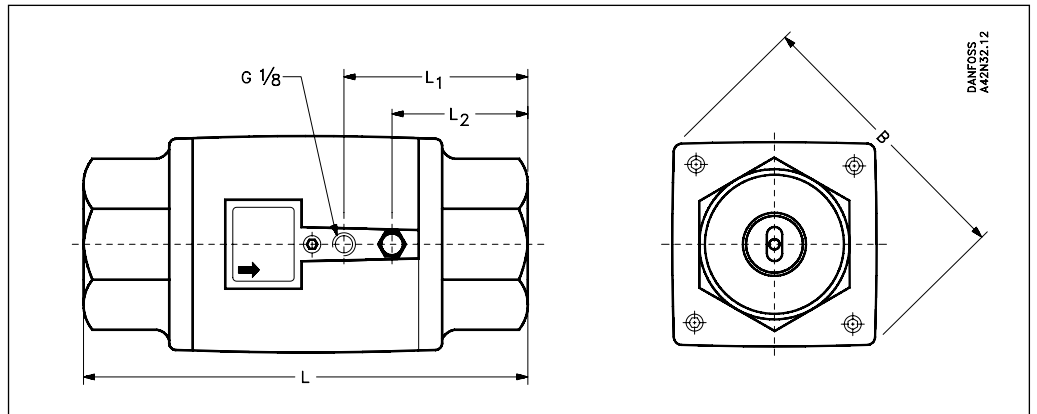
Control pressure, HP220Y ; spring return

Example: HP220Y G25

Medium = water  
 Differential pressure over valve = 6 bar  
 Necessary control pressure = 6 bar



Dimensions and weight



Type	L [mm]	L <sub>1</sub> [mm]	L <sub>2</sub> [mm]	B [mm]	Weight [kg]
HP220Y 15G	116	49	32	66	1.2
HP220Y 20G	116	49	32	66	1.1
HP220Y 25G	127	51	34	73	1.5
HP220Y 32G	140	54	37	86	2.1
HP220Y 40G	140	54	37	86	2.0
HP220Y 50G	161	64	47	112	3.5

Accessories

Control valves, type EV310A

Control valves, type EV310B

Control valves, types EV310A and EV310B

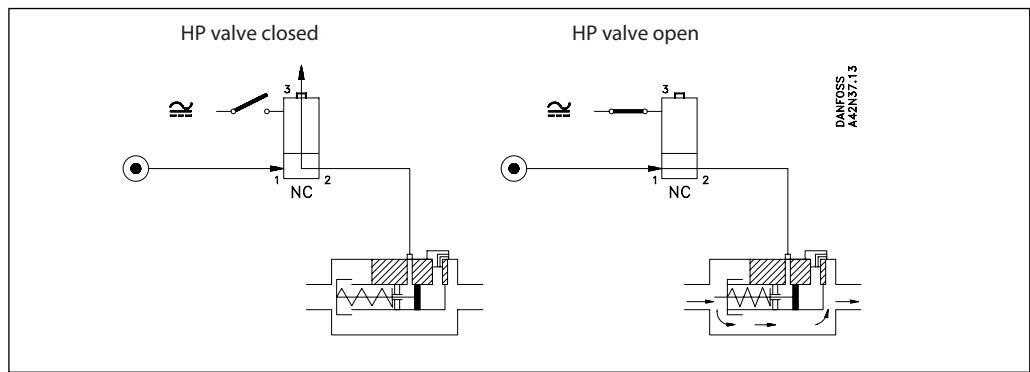
See separate data sheets DKACV.PD.100.E and DKACV.PD.200.J regarding code numbers, technical data and coil options for Danfoss EV310A and EV310B valves.



- Valves for industrial applications, such as control
- Available in de-energized closed and de-energized open versions
- Available with or without manual operation

Connection examples

HP valve with spring return, controlled by a 3/2-way solenoid valve, de-energized closed



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