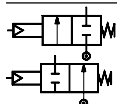


Externally operated valves
2/2-way angle-seat
Type HP210

Contents	Information type	Page
	Features, technical data and function	3
	Ordering	4
	Special versions	5
	Control pressure diagrams	6
	Dimensions and weight	8
	Capacity diagram for water	9
	Spare parts	10
	Accessories	11

Externally operated 2/2-way angle-seat valves



Unpressurized
closed/ open

Type HP210
For neutral and aggressive liquids, gases and steam
DN 15-50 G / SS

G 1/2 - G 2

Features



For robust industrial applications

- Gun metal version for water, oil and compressed air or stainless steel version for neutral and aggressive liquid and gaseous media
- Unpressurized closed (NC) versions and unpressurized opened (NO)
- Version with closing against or with closing with the flow direction

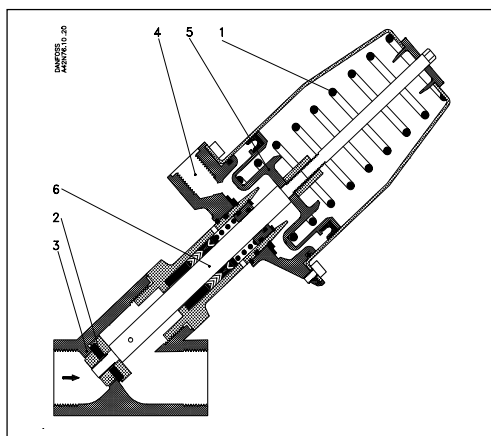
Control connection G 1/4
Differential pressure up to 16 bar, depending on valve type

Special versions: See page 5

Technical data

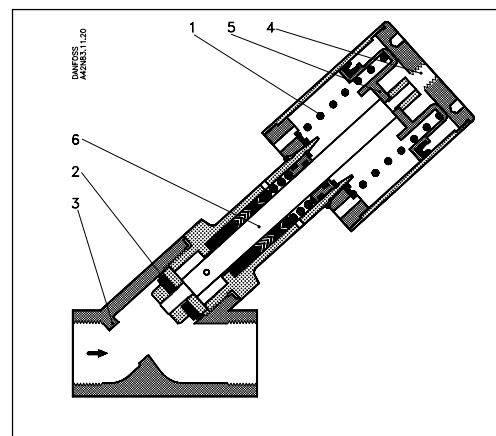
Design	Piston-operated; angle-seated		
Installation	Optional		
Nominal pressure	Gun metal: PN 16, stainless steel: PN 16		
Pressure range	See ordering		
Max. test pressure	Valve body:	Gun metal: 24 bar, stainless steel: 60 bar	
	Control head:	10 bar	
Ambient temperature	-30 to +50°C		
Medium temperature	-30 to +180°C		
Viscosity	Max. 400 cSt		
Control medium:	Neutral liquids, gases and steam with viscosity max. 40 cSt		
Materials:			
Valve body:	Gun metal	W.no. 2.1096.01	
	Stainless steel	W.no. 1.4581 / AISI 318	
	Brass	W.no. 2.0402	
Intermediate piece:	Gun metal body:	Stainless steel	
	Stainless steel body:	Stainless steel	
Seat control and nut:	Stainless steel	W.no. 1.4305 / AISI 303	
Spindle:	Stainless steel	W.no. 1.4305 / AISI 303	
Spindle gasket:	PTFE	W.no. 1.4021	
Seat gasket:	PTFE		

Function



1. Spring
2. Seat gasket
3. Valve seat
4. Control connection
5. Control piston
6. Spindle

HP210 unpressurized closed version (NC)
The valve is kept closed by the spring (1), which presses the seat gasket (2) against the valve seat (3).
When the pressure is applied to the control connection (4), the control piston (5), the spindle (6) and thus the seat gasket (2) are raised, and the valve opens with or against the pressure of the medium.



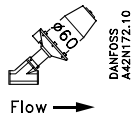
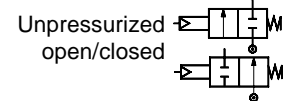
HP210 unpressurized open version (NO)
The valve is kept open by the spring (1), which keeps the seat gasket (2) away from the valve seat (3).
When pressure is applied to the control connection (4), the control piston (5), the spindle (6) and thus the seat gasket (2) are lowered, and the valve closes against the pressure of the medium.

Note! Use valves with closing *against* the flow direction whenever possible (HP210P and S). Closing *with* the flow direction holds a risk for water hammering.

Externally operated 2/2-way angle-seat valves

G 1/2 - G 2

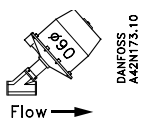
Type HP210
For neutral and aggressive liquids, gases and steam
DN 15-50 G / SS



NC version, ø 60 mm piston

Closing against the flow direction

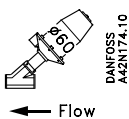
Connection ISO 228/1	DN	k _v -value [m ³ /h]	Differential pressure range [bar]	Control pressure [bar]		Code no. gun metal			Code no. stainless steel		
						Type designation		Code no.	Type designation		Code no.
						Main type	Specification		Main type	Specification	
G 1/2	15	4.5	0 to 16	4	10	HP210P 15 G	G 12T NC000	042N0927	HP210P 15 SS	G 12T NC000	042N0982
G 3/4	20	11	0 to 16	4	10	HP210P 20 G	G 34T NC000	042N0928	HP210P 20 SS	G 34T NC000	042N0983
G 1	25	18	0 to 9	4	10	HP210P 25 G	G 1T NC000	042N0929	HP210P 25 SS	G 1T NC000	042N0984
G 1 1/4	32	29	0 to 5	4	10	HP210P 32 G	G 114T NC000	042N0930	HP210P 32 SS	G 114T NC000	042N0985
G 1 1/2	40	42	0 to 3.5	4	10	HP210P 40 G	G 112T NC000	042N0931	HP210P 40 SS	G 112T NC000	042N0986
G 2	50	72	0 to 2	4	10	HP210P 50 G	G 2T NC000	042N0932	HP210P 50 SS	G 2T NC000	042N0987



NC version, ø 90 mm piston

Closing against the flow direction

Connection ISO 228/1	DN	k _v -value [m ³ /h]	Differential pressure range [bar]	Control pressure [bar]		Code no. gun metal			Code no. stainless steel		
						Type designation		Code no.	Type designation		Code no.
						Main type	Specification		Main type	Specification	
G 3/4	20	11	0 to 16	3	10	HP210S 20 G	G 34T NC000	042N0939	HP210S 20 SS	G 34T NC000	042N0994
G 1	25	18	0 to 16	3	10	HP210S 25 G	G 1T NC000	042N0940	HP210S 25 SS	G 1T NC000	042N0995
G 1 1/4	32	29	0 to 13	3	10	HP210S 32 G	G 114T NC000	042N0941	HP210S 32 SS	G 114T NC000	042N0996
G 1 1/2	40	42	0 to 9	3	10	HP210S 40 G	G 112T NC000	042N0942	HP210S 40 SS	G 112T NC000	042N0997
G 2	50	72	0 to 5	3	10	HP210S 50 G	G 2T NC000	042N0943	HP210S 50 SS	G 2T NC000	042N0998

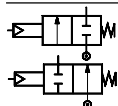


NC version, ø 60 mm piston

Closing with the flow direction

Connection ISO 228/1	DN	k _v -value [m ³ /h]	Differential pressure range [bar]	Control pressure [bar]		Code no. gun metal			Code no. stainless steel		
						Type designation		Code no.	Type designation		Code no.
						Main type	Specification		Main type	Specification	
G 1	25	18	See diagram, page 6			HP210R 25 G	G 1T NC000	042N0907	HP210R 25 SS	G 1T NC000	042N0962
G 1 1/4	32	29	See diagram, page 6			HP210R 32 G	G 114T NC000	042N0908	HP210R 32 SS	G 114T NC000	042N0963
G 1 1/2	40	42	See diagram, page 6			HP210R 40 G	G 112T NC000	042N0909	HP210R 40 SS	G 112T NC000	042N0964
G 2	50	72	See diagram, page 6			HP210R 50 G	G 2T NC000	042N0910	HP210R 50 SS	G 2T NC000	042N0965

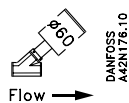
Externally operated 2/2-way angle-seat valves



Unpressurized
open/closed

Type HP210
For neutral and aggressive liquids, gases and steam
DN 15-50 G / SS

G 1/2 - G 2

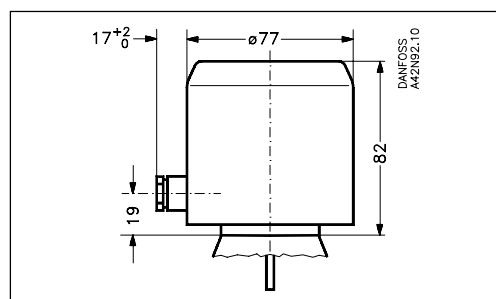


NO version, ø 60 mm piston

**Closing against
the flow direction**

Connection ISO 228/1	DN	K _v -value [m ³ /h]	Differential pressure range [bar]	Control pressure [bar]	Code no. gun metal			Code no. stainless steel		
					Type designation		Code no.	Type designation		Code no.
					Main type	Specification		Main type	Specification	
G 1/2	15	4.5	See diagram, page 6		HP210P 15 G	G 12T NO000	042N0949	HP210P 15 SS	G 12T NO000	042N1004
G 3/4	20	11	See diagram, page 6		HP210P 20 G	G 34T NO000	042N0950	HP210P 20 SS	G 34T NO000	042N1005
G 1	25	18	See diagram, page 6		HP210P 25 G	G 1T NO000	042N0951	HP210P 25 SS	G 1T NO000	042N1006
G 1 1/4	32	29	See diagram, page 6		HP210P 32 G	G 114T NO000	042N0952	HP210P 32 SS	G 114T NO000	042N1007
G 1 1/2	40	42	See diagram, page 6		HP210P 40 G	G 112T NO000	042N0953	HP210P 40 SS	G 112T NO000	042N1008
G 2	50	72	See diagram, page 6		HP210P 50 G	G 2T NO000	042N0954	HP210P 50 SS	G 2T NO000	042N1009

Special version:
Valves with electrical position indicator
(Only unpressurized closed version)



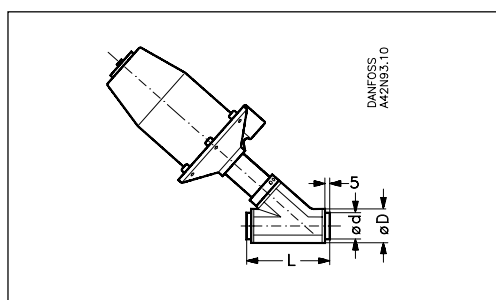
The spindle of the valve is equipped with an electrical position indicator that indicates the position (open or closed) of the valve.

- with one switch to indicate the position open or closed.
- with two switches to indicate the positions open and closed

The valves are available with two versions of signalling device:

For information about technical data, please contact Danfoss.

Special version:
Stainless steel valves with weld spigots



Danfoss supplies stainless steel valves with weld spigots.

For information about technical data and code numbers, please contact Danfoss.

DN	15	20	25	32	40	50
ØD	17.2	22.6	28.8	37.5	43.5	55
ØD	21.3	26.9	33.7	42.4	48.3	60.3
L	65	75	90	110	120	150

Externally operated 2/2-way angle-seat valves

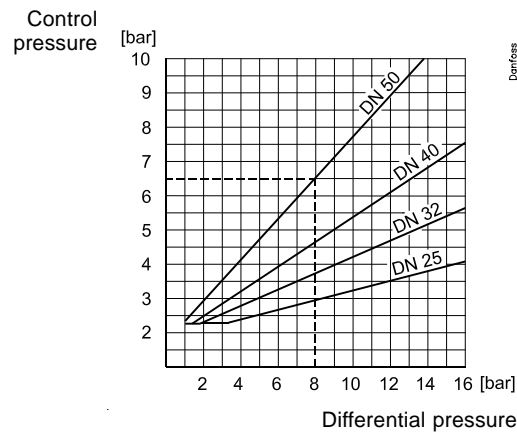
Type HP210

For neutral and aggressive liquids, gases and steam

DN 15-50 G / SS

Examples

HP210R

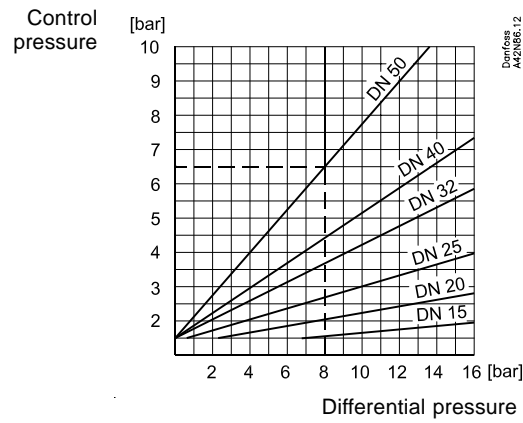


Example

Control pressure for HP210R 50 SS, DN50.

Differential pressure: 8 bar across valve.
Necessary control pressure: min. 6.5 bar.

HP210P (NO)



Example

Control pressure for HP210P 50 G, DN50.

Differential pressure: 8 bar across valve.
Necessary control pressure: min. 6.5 bar.

Externally operated 2/2-way angle-seat valves

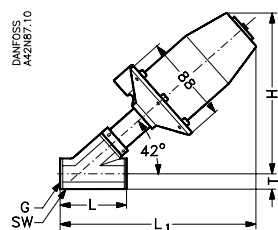
Type HP210

For neutral and aggressive liquids, gases and steam

DN 15-50 G / SS

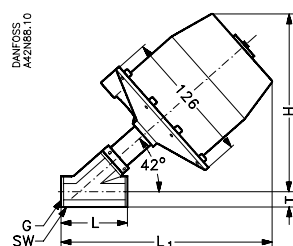
Dimensions and weight

Types HP210P, R, and S



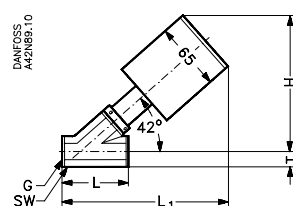
HP210P and R (NC)
Piston: Ø 60 unpressurized
closed version

DN	G	L [mm]	L1 [mm]	H [mm]	T [mm]	SW* [mm]	Weight	
							Gun metal [kg]	Stainless steel [kg]
15	1/2	65	185	155	15	27	1.3	1.4
20	3/4	75	193	161	17	32	1.5	1.6
25	1	90	203	168	22.5	41	2.0	2.1
32	1 1/4	110	218	177	27	50	2.5	2.6
40	1 1/2	120	235	188	29	55	2.8	2.9
50	2	150	248	196	37	70	4.1	4.2



HP210S (NC)
Piston: Ø 90 unpressurized
closed version

DN	G	L [mm]	L1 [mm]	H [mm]	T [mm]	SW* [mm]	Weight	
							Gun metal [kg]	Stainless steel [kg]
15	1/2	65	194	165	15	27	3.1	3.2
20	3/4	75	202	171	17	32	3.3	3.4
25	1	90	212	178	22.5	41	3.8	3.9
32	1 1/4	110	227	187	27	50	4.3	4.4
40	1 1/2	120	244	198	29	55	4.6	4.7
50	2	150	257	206	37	70	5.9	6.0



HP210P (NO)
Unpressurized open
version

DN	G	L [mm]	L1 [mm]	H [mm]	T [mm]	SW* [mm]	Weight	
							Gun metal [kg]	Stainless steel [kg]
15	1/2	65	161	135	15	27	1.3	1.4
20	3/4	75	169	141	17	32	1.5	1.6
25	1	90	180	148	22.5	41	2.0	2.1
32	1 1/4	110	194	157	27	50	2.5	2.6
40	1 1/2	120	212	168	29	55	2.8	2.9
50	2	150	225	176	37	70	4.1	4.2

* SW: Across flats

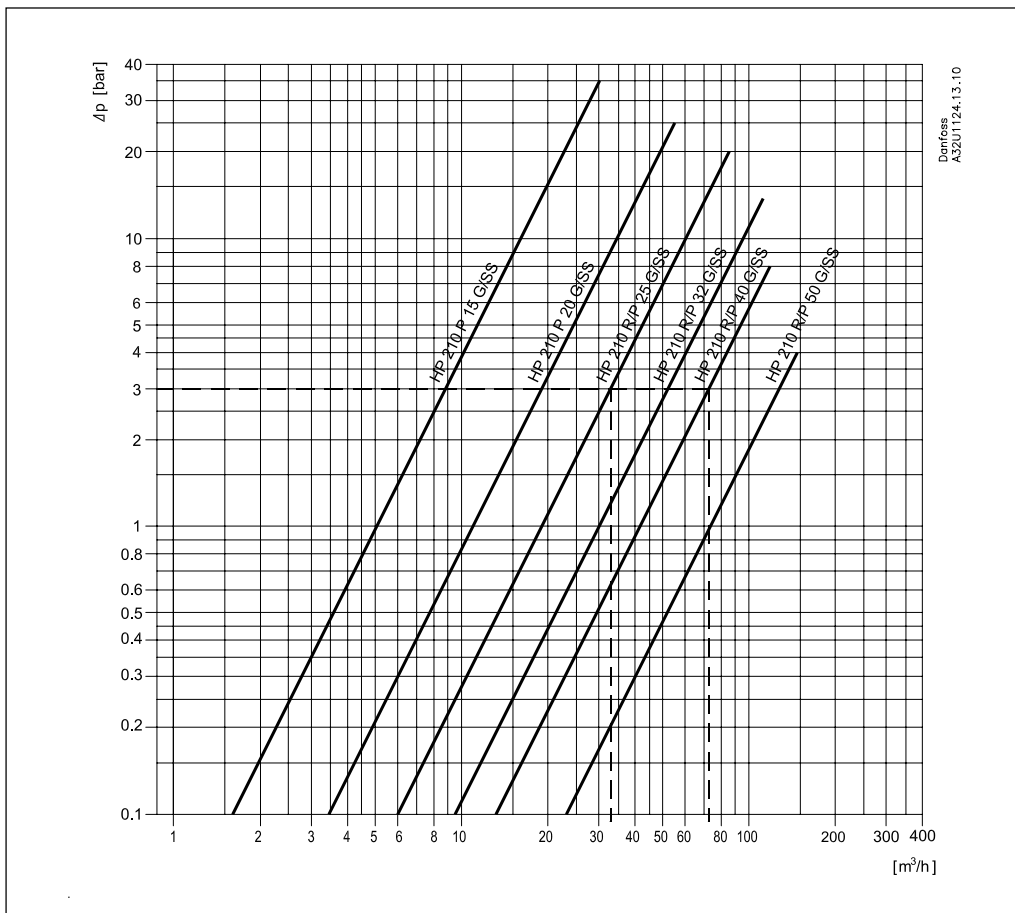
Externally operated 2/2-way angle-seat valves

Type HP210

For neutral and aggressive liquids, gases and steam

DN 15-50 G / SS

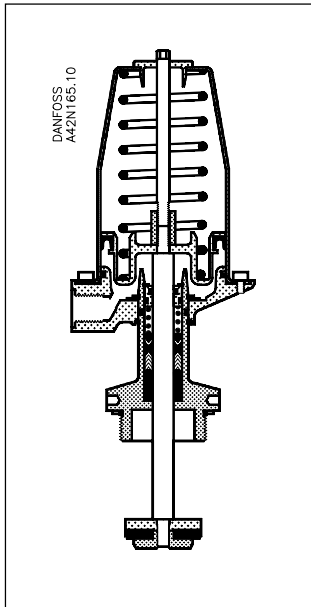
Capacity diagram
Water



Spare parts

**for externally operated valves
2/2-way angle-seat
Type HP210**

**Spare parts sets for
HP210**



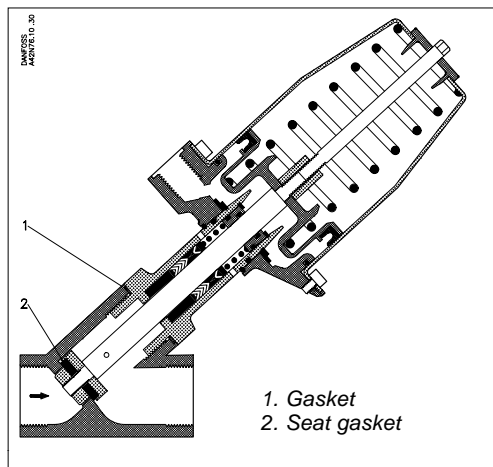
Actuators for HP210P and R

DN	HP 210P		HP 210R	
	Gun metal	Stainless steel	Gun metal	Stainless steel
15	042N0044	042N0050	042N0056	042N0062
20	042N0045	042N0051	042N0057	042N0063
25	042N0046	042N0052	042N0058	042N0064
32	042N0047	042N0053	042N0059	042N0065
40	042N0048	042N0054	042N0060	042N0066
50	042N0049	042N0055	042N0061	042N0067

Actuators for HP 210S and T

DN	HP 210S		HP 210T	
	Gun metal	Stainless steel	Gun metal	Stainless steel
20	042N0069	042N0075	042N0081	042N0087
25	042N0070	042N0076	042N0082	042N0088
32	042N0071	042N0077	042N0083	042N0089
40	042N0072	042N0078	042N0084	042N0090
50	042N0073	042N0079	042N0085	042N0091

The spare parts set includes complete actuator (valve without valve body)



Gasket sets for HP 210

DN	Material		Code no.
	Seat gasket	Gasket	
15	PTFE	AFM 34	042N0092
20	PTFE	AFM	042N0093
25	PTFE	AFM	042N0094
32	PTFE	AFM	042N0095
40	PTFE	AFM	042N0096
50	PTFE	AFM	042N0097

The gasket set includes 1 seat gasket and 1 gasket

Accessories

for externally operated valves 2/2-way angle-seat Type HP210

Control valves, types EV310A and EV310

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.

Control valves, type EV310A



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

Control valves, type EV310B



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

Type HP210

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