



Danfoss DN 15-50 Differential Pressure Controller Installation Guide

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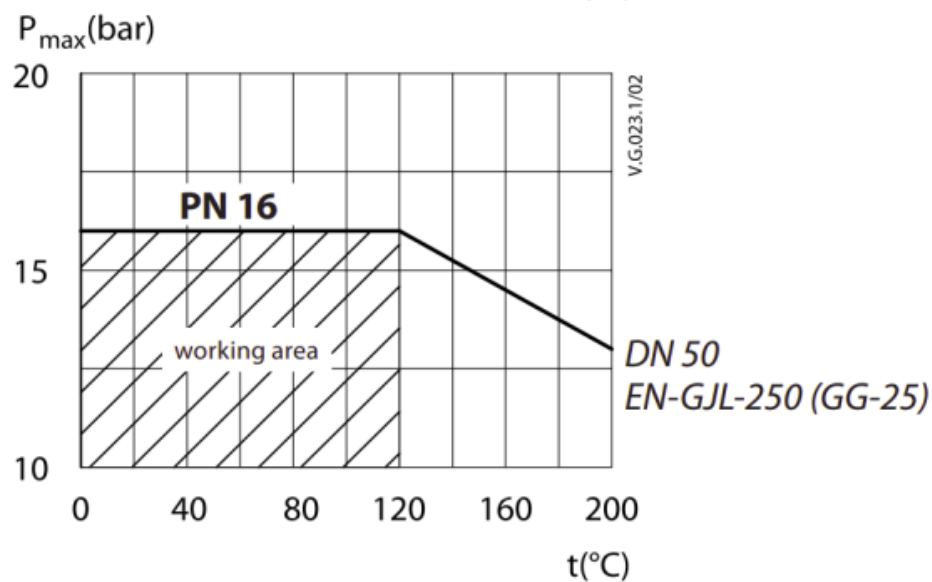
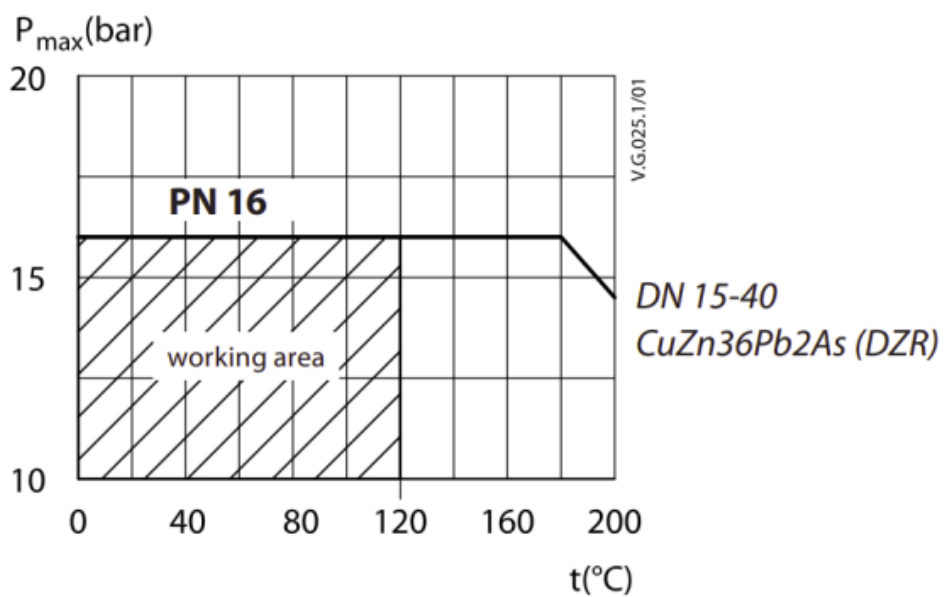
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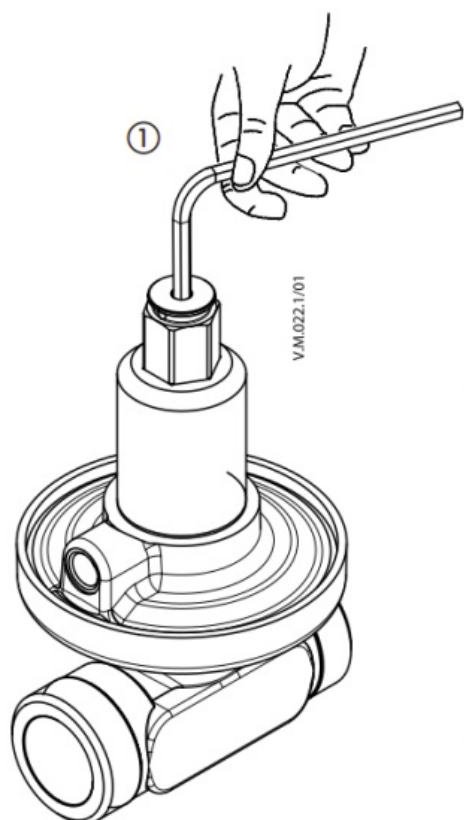
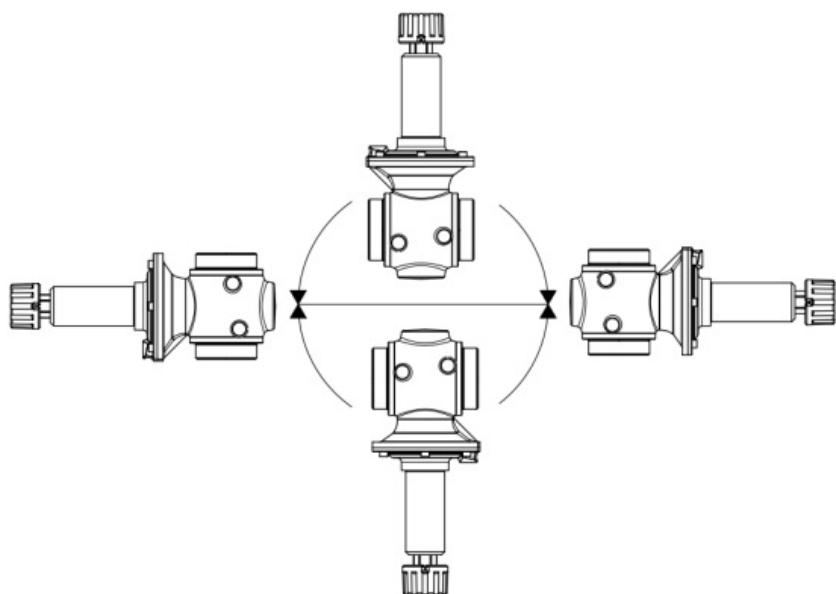
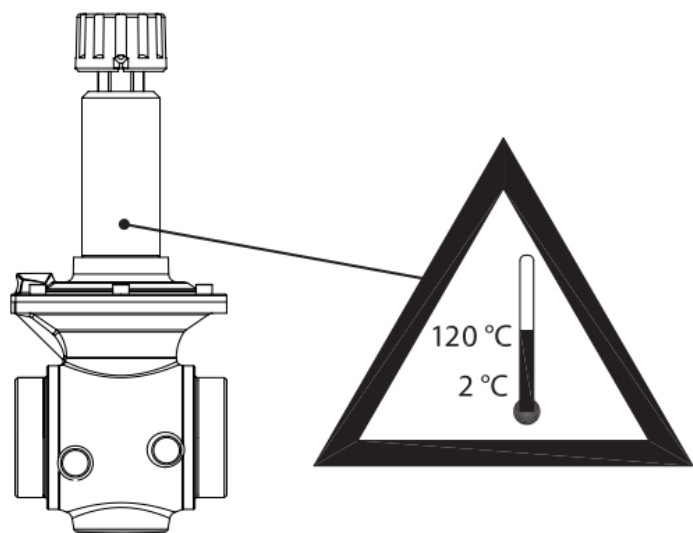


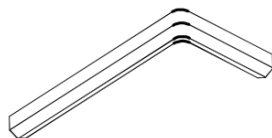
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DIMENSIONS





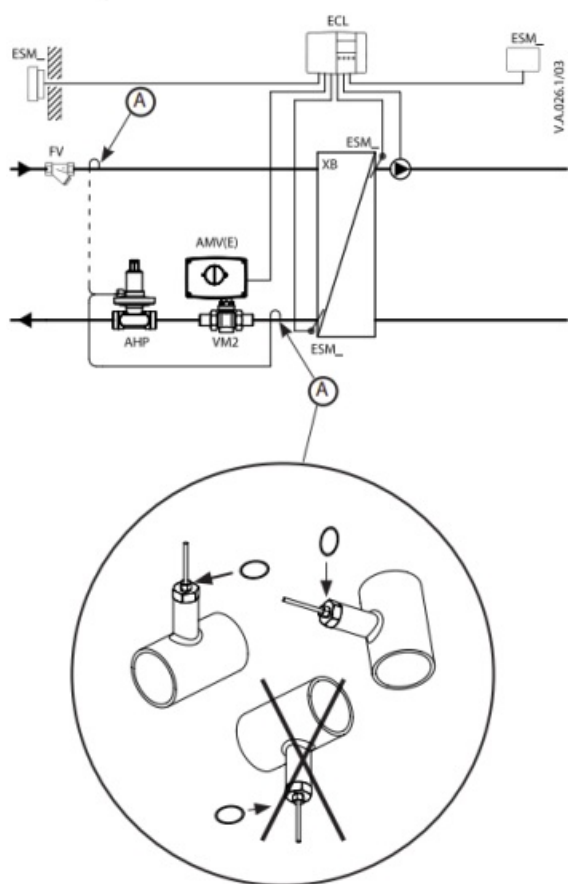
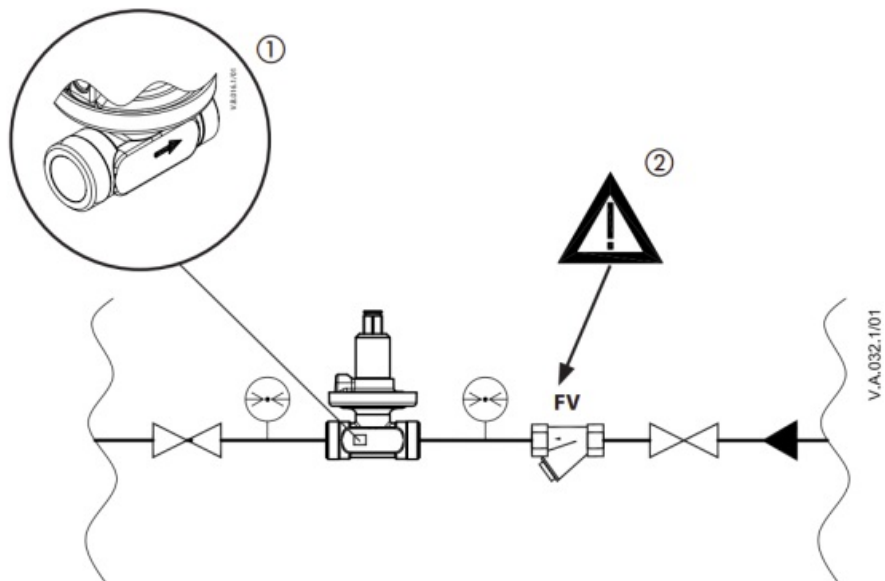
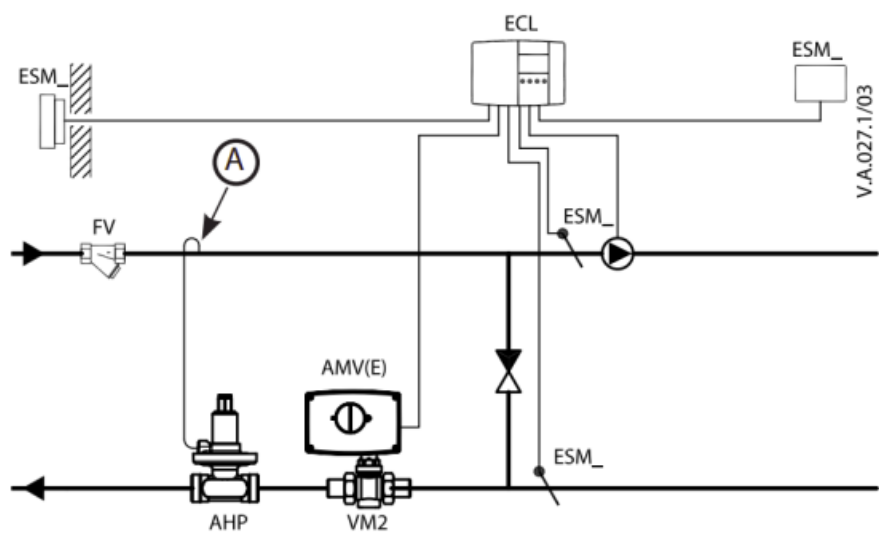


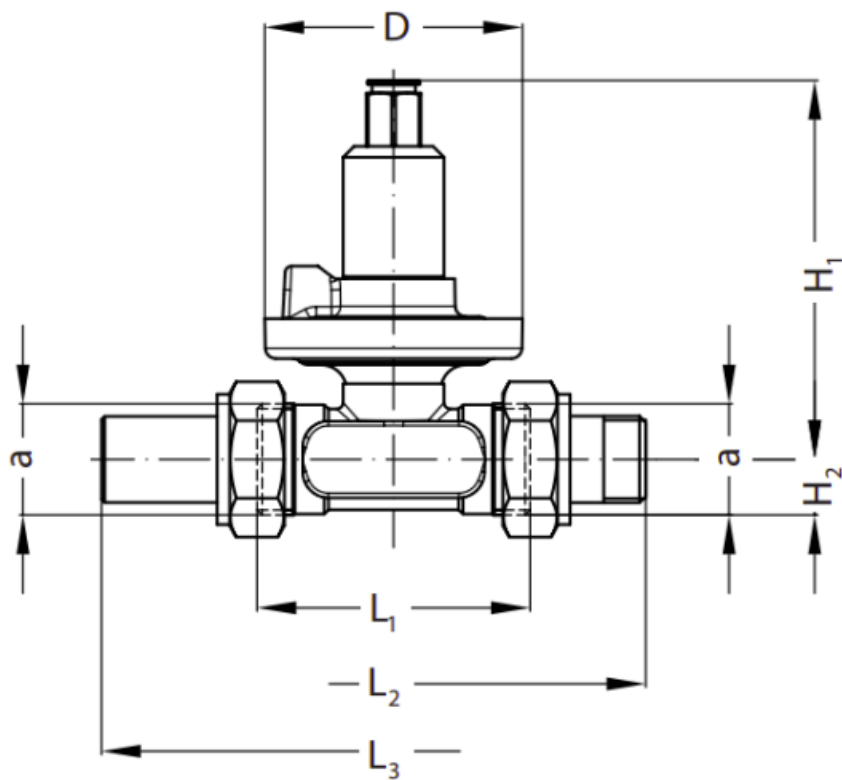
DN	mm
15	2.5
20	3
25	4
32	5
40	5
50	5



¹⁾ Δp setting range (bar)	bar
0.2-0.4	0.30
0.35-0.75	0.60
0.6-1.0	0.80

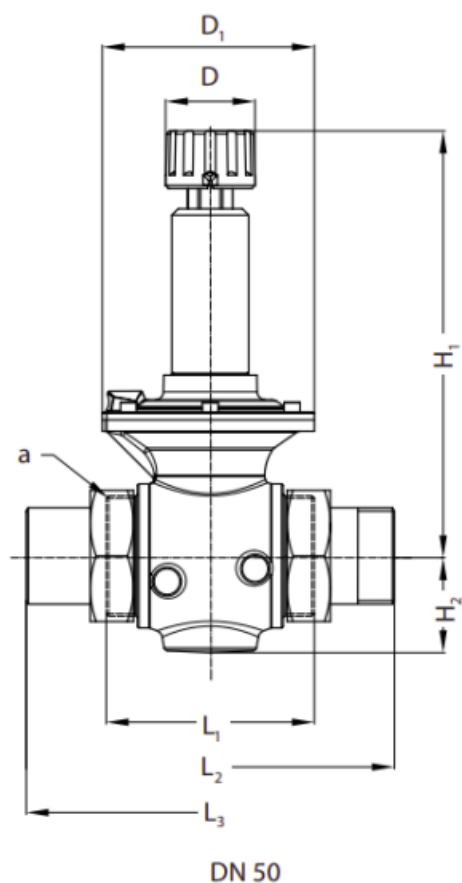
n (turns)	DN 15-40	DN 50		
	0.2-0.4	0.2-0.4	0.35-0.75	0.6-1.00
	bar			
0		0.40	0.75	1.00
1		0.39	0.73	0.98
2		0.38	0.71	0.96
3		0.37	0.69	0.94
4		0.36	0.67	0.92
5	0.40	0.35	0.65	0.90
6	0.39	0.34	0.63	0.88
7	0.38	0.33	0.61	0.86
8	0.37	0.32	0.59	0.84
9	0.36	0.31	0.57	0.82
10	0.35	0.30	0.55	0.80
11	0.34	0.29	0.53	0.78
12	0.33	0.28	0.51	0.76
13	0.32	0.27	0.49	0.74
14	0.31	0.26	0.47	0.72
15	0.30	0.25	0.45	0.70
16	0.29	0.24	0.43	0.68
17	0.28	0.23	0.41	0.66
18	0.27	0.22	0.39	0.64
19	0.26	0.21	0.37	0.62
20	0.25	0.20	0.35	0.60
21	0.24			
22	0.23			
23	0.22			
24	0.21			
25	0.20			





DN 15-40

DN	Δp(bar)	L1	L2	L3	H1	H2	D	aISO 228/1
		mm						
15	0.2-0.4	65	120	139	90.2	13.2	61	G ¾ A
20		75	136	159	111.2	16.6	76.5	G 1 A
25		85	155	169	141	21	98	G 1¼ A
32		95	172	179	175.2	23.9	122.5	G 1¾ A
40		100	206	184	179.7	26.9	122.5	G 2 A



DN	Δp(bar)	L1	L2	L3	H1	H2	D	D1	aISO 228/1
		mm							
50	0.2-0.4	130	244	234	232	61	55	133	G 2½
	0.35-0.75				273				
	0.6-1.0								

Safety notes



To avoid injury of persons and damages to the device, it is absolutely necessary to carefully read and observe these instructions.

Necessary assembly, start-up and maintenance work must only be performed by qualified and authorized personnel.

Disposal instruction



This product should be dismantled and its components sorted, if possible, in various groups before recycling or disposal.

Always follow the local disposal regulations.

Installation

AHP must be installed in the return pipe.

The flow must be in the direction of the arrow on the valve body-fig ①.

It is recommended to install filter ② in the system supply pipe. The impulse tube must be flushed through before being fitted on the + connection of the AHP controller.

AHP controller must in addition be installed as determined by installation conditions. After the system has been in use for some time, the connections with external threads should be tightened once again to minimize the risk for leakage.

Pressure testing

When pressure testing you must secure that both sides of the membrane have the same static pressure. That means the impulse tube must be connected and any needle valves must be open. During this operation (closing or opening the valves) please make sure that there is never lower pressure on upper side of the membrane. If this instructions are ignored, the diaphragm might be damaged.

Setting/adjustment

The AHP controllers are sold in different Δp setting ranges. The controllers are factory-set to a defined value as described on Factory presetting table on fig ②. The setting on AHP can be changed by turning the setting spindle ①. Use the following procedure to set the desired differential pressure:

- turning the spindle clockwise increases the setting
- turning it counter clockwise reduces the setting.

If the setting is not known, turn the spindle fully clockwise. With this the setting on AHP is at maximum value within setting range. Now turn the spindle a number of times (n) as described in ③ until the required differential pressure setting is obtained.

Note: Do not turn the spindle more than 20/40 turns as it will become disengaged.

Starting

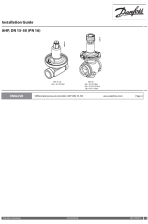
During system start please secure that there is the same static pressure on both sides or higher pressure on upper side of the membrane (+ connection).

Dimensions

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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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