

Diaphragm valve type 14 with pneumatic actuator type AN 4 to 6 bar air pressure (DN 15 - 50)



Body material	PVC-U	PVC-C	PP	PVDF
Material of diaphragm	• EPDM		• CSM	• PTFE with EPDM cushion
Working temperature ¹⁾				
Flange	0 °C up to 60 °C ²⁾	0 °C up to 90 °C ²⁾	-20 °C up to 90 °C ²⁾	-40 °C up to 120 °C
True union	0 °C up to 50 °C ²⁾	0 °C up to 90 °C ²⁾	-20 °C up to 80 °C ²⁾	-20 °C up to 100 °C
Nominal size	DN 15 up to DN 50			
Connection with pipe	• Flange connection acc. to DIN EN 1092-1 (replaces DIN 2501) - PN 10 ³⁾		• True union with -Cement- / welding socket -Spigot	
Length	• DIN EN 558 - 1 series FTF 1 (DIN 3202 - series F 1)		• Company standard	
Actuator	Pneumatic, single or double acting			
Accessories	Limit switches, solenoid valves, positioners, lift limiter			

¹⁾ Designed for 10 years of use with a neutral medium (water)

³⁾ Flange connection also acc. to ANSI available

²⁾ Working temperatures for diaphragm materials:

CSM: -20 up to 80 °C

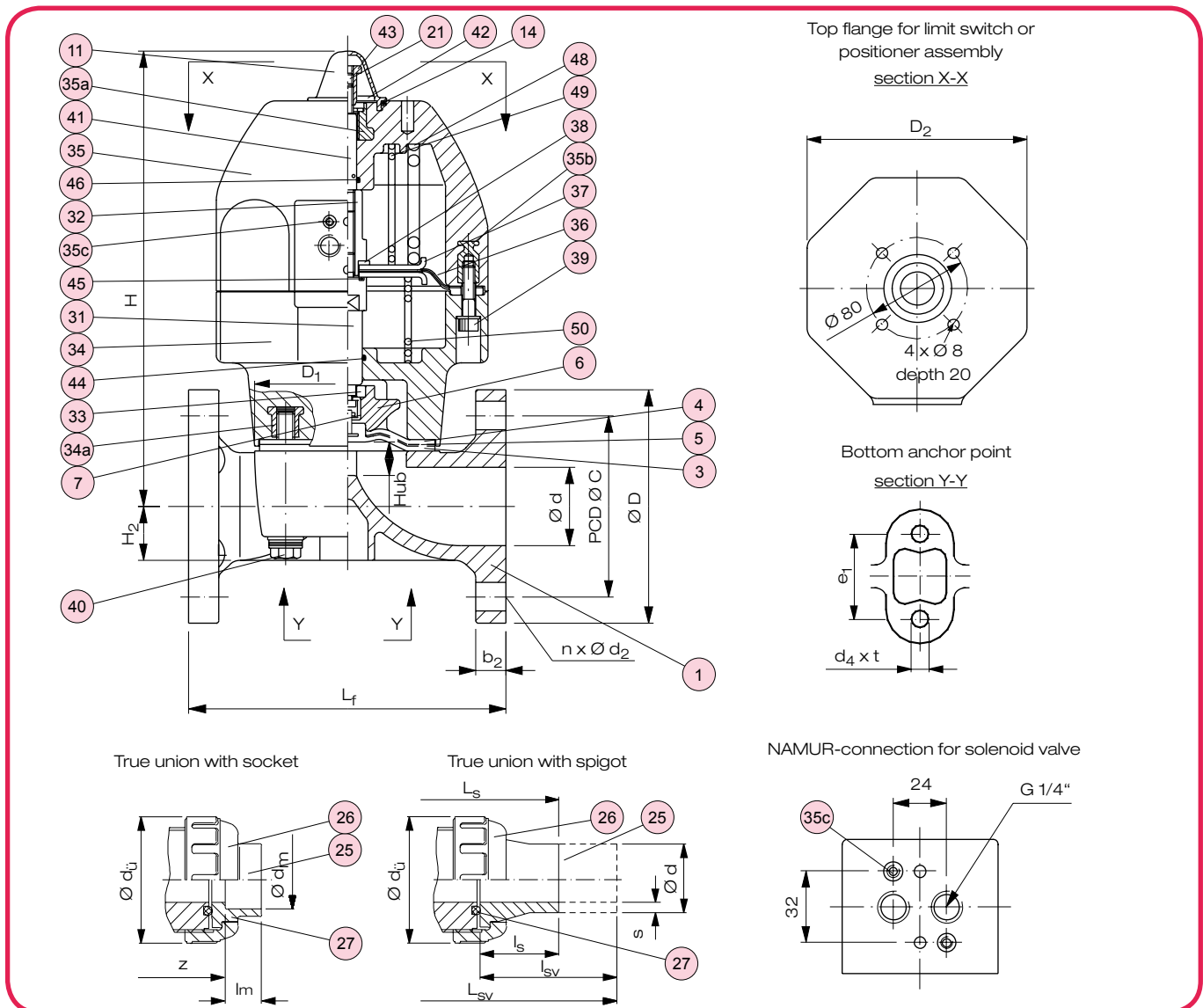
EPDM: -40 up to 90 °C

PTFE: -40 up to 120 °C

Example for an invitation to tender text:

Diaphragm valve type 14, DN 50, PN 10, PP / PTFE, flange connection acc. to DIN EN 1092-1 - PN 10, length acc. to DIN EN 558-1 series FTF 1, with pneumatic actuator type AN - 4 AO single acting air to open, 4 to 6 bar air pressure, optical position indicator, adjustable stroke limiter

Diaphragm valve type 14 with pneumatic actuator type AN



No.	Description	Number	Material
1	Base body	1	PVC-U/-C, PP, PVDF
3	Diaphragm ^{*)}	1	EPDM, CSM, PTFE ^{**)}
4	Cushion	1	EPDM
5	Diffusion stop inlay	1	PVDF
6	Compressor	1	PVDF
7	Joint	1	A2 - 1.4301 (SUS 304)
11	Gauge cover	1	PC
14	O-ring (A)	1	EPDM
21	Screw	1	A2 - 1.4301 (SUS 304)
25	Connector (socket, spigot)	2	PVC-U/-C, PE 100, PP, PVDF
26	Union nut	2	PVC-U/-C, PP, PVDF
27	O-ring (C) ^{*)}	2	EPDM, FPM
31	Spindle (A)	1	Brass (C 6783)
32	Spindle (B)	1	Brass (C 6783)
33	Thrust ring	1	Brass (C 6783)
34	Cylinder body	1	PP-G
34a	Insert nut	4	Brass CW615N (C 3604)

No.	Description	Number	Material
35	Cylinder bonnet	1	PP-G
35a	Threaded bushing	1	A2 - 1.4301 (SUS 304)
35b	Threaded bushing	8	Brass CW615N (C 3604)
35c	Threaded insert	2	A2 - 1.4301 (SUS 304)
36	Actuator diaphragm	1	NBR
37	Plate	2	A2 - 1.4301 (SUS 304)
38	Spring ring	1	A2 - 1.4301 (SUS 304)
39	Screw, washer (A)	8	A2 - 1.4301 (SUS 304)
40	Screw, washer (B)	4	A2 - 1.4301 (SUS 304)
41	Indicator bolt	1	A2 - 1.4301 (SUS 304)
42	Washer	1	A2 - 1.4301 (SUS 304)
43	Stroke limiter	1	A2 - 1.4301 (SUS 304)
44	O-ring (D)	1	NBR
45	O-ring (E)	1	NBR
46	O-ring (F)	1	NBR
48	Spring (A) ²⁾	1	Spring steel (SWOSM-B)
49	Spring (B) ²⁾	1	Spring steel (SWOSM-B)
50	Spring (C) ³⁾	1	Spring steel (SWOSM-B)

^{*)} Wearing parts
<sup>**) PTFE diaphragm with EPDM cushion
³⁾ Air to close actuator only</sup>

¹⁾ with pin from material A2 - 1.4301 (SUS 304)

Diaphragm valve type 14 with pneumatic actuator type AN

Dimensions - flange connection

Dimensions in mm														
DN	d	C	D	D ₁	D ₂	L _f	b ₂	Lift	H ₂	H	e ₁	d ₄	t	n x d ₂
15	16	65	95	54 x 66	130	130	12	10	12,5	186	25	7	13	4 x 14
20	20	75	105	54 x 66	130	150	13	10	14,5	188	25	7	13	4 x 14
25	25	85	115	67 x 80	130	160	13	12	18,5	193	25	7	13	4 x 14
32	32	100	140	67 x 80	130	180	16	12	22,5	197	25	7	13	4 x 18
40	40	110	150	108 x 108	174	200	20	21	27,5	293	45	9	15	4 x 18
50	52	125	165	123 x 123	174	230	22	25	36,0	302	45	9	15	4 x 18

from DN 65 special version

Dimensions and weights - true union with cement socket / welding socket or welding spigot

Dimensions in mm															
DN	d	d _ü	Cement socket			Welding socket			Welding spigot						
			d _m	z	l _m	d _m	z	l _m	s ¹⁾ SDR 11	s ¹⁾ SDR 17	l _{sv} ³⁾	l _s ²⁾	L _{sv} ³⁾	L _s ²⁾	
15	20	48	20	96	16	20	96	15	1,9	-	87	51	246	188	
20	25	60	25	109	19	25	109	16	2,3	-	87	49	272	198	
25	32	70	32	128	22	32	128	18	2,9	-	88	49	296	216	
32	40	82	40	136	26	39	136	21	3,7	-	101	49	320	222	
40	50	100	50	184	31	49	184	24	4,6	3,0	100	52	372	268	
50	63	106	63	218	38	63	219	28	5,8	3,8	122	48	447	297	

1) PVDF-weld spigot with differing wall thickness (s)

2) Weld spigot, short (PP-R, PVDF)

3) Weld spigot long (PP-R)

Weight in kg / pc.

DN	Flange, double acting				True union, double acting				Additional weight	
	PVC-U	PVC-C	PP	PVDF	PVC-U	PVC-C	PP	PVDF	Single acting Air to open	Single acting Air to close
15	2,1	2,1	2,0	2,2	1,9	1,9	1,8	2,0	0,4	0,1
20	2,2	2,2	2,0	2,3	2,0	2,0	1,9	2,1	0,4	0,1
25	2,4	2,5	2,2	2,6	2,2	2,3	2,1	2,4	0,5	0,1
32	2,7	2,7	2,4	2,9	2,4	2,4	2,2	2,6	0,4	0,1
40	5,2	6,3	4,8	5,5	5,0	5,1	4,6	5,3	1,3	0,4
50	6,1	6,1	5,4	6,5	5,4	5,4	4,9	5,7	1,3	0,4

Working pressure p_g in bar

see Installation, Operation and Maintenance Manual (ASAHI_BA_L1_Membranventil Typ 14 AN pneum. DN15-50_H-A007E-10_06-2011_EN)

Actuator assignment

DN	Double acting	Single acting	
		Air to open	Air to close
15 20	AN - 1 DA	AN - 1 AO	AN - 1 AS
25 32	AN - 2 DA	AN - 2 AO	AN - 2 AS
40 50	AN - 3 DA AN - 4 DA	AN - 3 AO AN - 4 AO	AN - 3 AS AN - 4 AS

Ident.-label	Type	Double acting				Single acting, air to open				Single acting, air to close			
		1 DA	2 DA	3 DA	4 DA	1 AO	2 AO	3 AO	4 AO	1 AS	2 AS	3 AS	4 AS
Air consumption [l / lift]		2,6	2,7	9,6	9,8	0,8	0,8	3,4	3,4	1,8	1,9	6,1	6,3