

Data sheet

Diaphragm valves DIASTAR

Overview

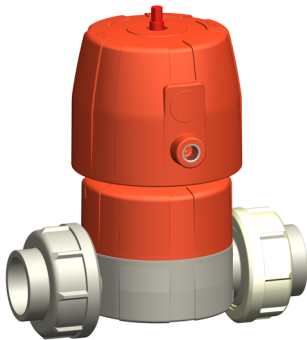
Product description

The new pneumatic Diaphragm Valves of GF Piping Systems represent a revolution in terms of safety, efficiency and simplicity. Like the hand valves the new DIASTAR also has a central union nut. This connection is non-corrosive, temperature stable and high pressure rating up to 16 bar. Because of the doubled flow rate the energy expenditure can be reduced considerably. At the same time the flow characteristic is very linear and thus ideally suited for control applications. Features like rotatable air connections and pre-tensioned spring-kits facilitate installation and maintenance enormously. The accessory interface allows simple integration into facility automation.

Models

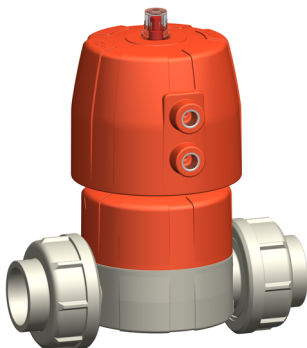
DIASTAR Six

Are you looking for a cost-effective solution with a long working life for elastomer diaphragms up to 6 bar? Then you are on the right track with DIASTAR Six. It combines high quality with the basic functions of a pneumatic actuator. Its compact design is also an advantage.



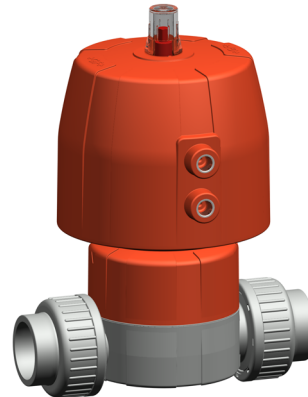
DIASTAR Ten

Optimally suited for all standard applications up to 10 bar requiring integration of accessories. Uncomplicated integration into the plant automation is possible through the appropriate interface. DIASTAR Ten also offers the possibility of using a PTFE diaphragm. The cost-benefit ratio is unbeatable.



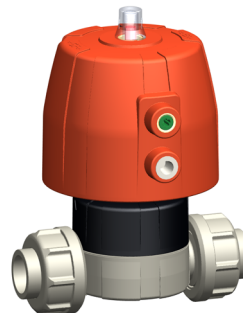
DIASTAR TenPlus

This is our actuator for high performance applications that require high closing forces. With the DIASTAR TenPlus line pressures up to 10 bar on both sides are possible. The valves are available in all piping and diaphragm materials and therefore offer maximum flexibility for your process. Of course it has an accessory interface for easy system integration.



DIASTAR Sixteen

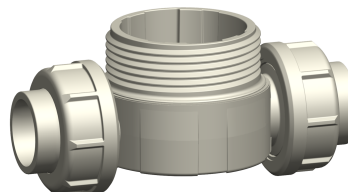
This is our strongest one. The high closing force in combination with the special housing guarantees secure control of line pressure up to 16 bar. Are you looking for maximal reliability? And do you want an integrated accessory interface for simple system integration? Then DIASTAR Sixteen is the right choice.



Valve bodies

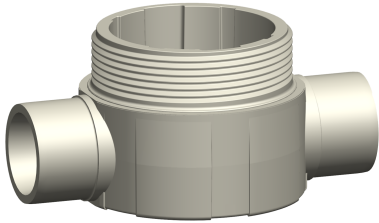
Type 514

True union design



Type 515

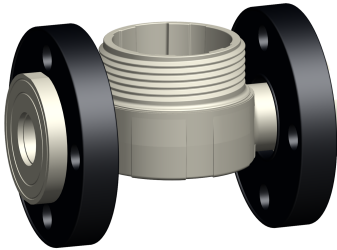
Spigot ends



- 90° turnable air connection for a flexible installation
- The new design enables positioning of the weir rather close to the pipe wall. This produces a zero static branch valve that gives no chance to impurities and growth of bacteria

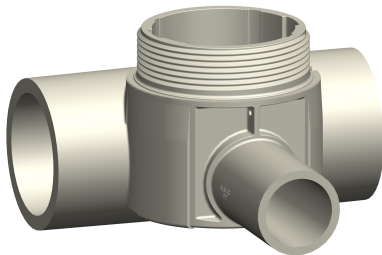
Type 517

Flanges

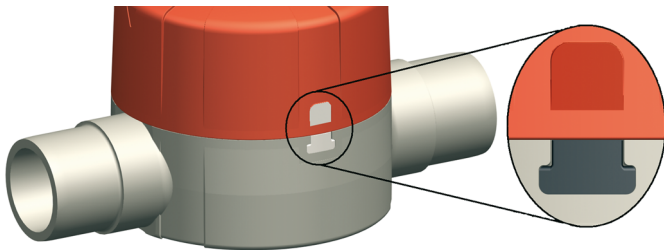


Type 519

Branched type



Indicator for diaphragm valve



Friction lock on the valve body - colour shows type of diaphragm material:

black	EPDM diaphragm
white	PTFE/ EPDM diaphragm
green	PTFE/ FPM diaphragm
red	FPM diaphragm
blue	NBR diaphragm

Product Features

- Actuators type Sixteen for 16 bar, TenPlus for 10 bar, Ten for 10 bar and Six for 6 bar nominal pressure
- No corrosion as there are no metal screws
- Increased leak-tightness at temperature changes due to identical temperature behavior of the materials used
- Due to the innovative design the flow rate could be doubled over all dimensions
- The valve body geometry results in a linear flow characteristic, clearly simplifying valve control

Overview

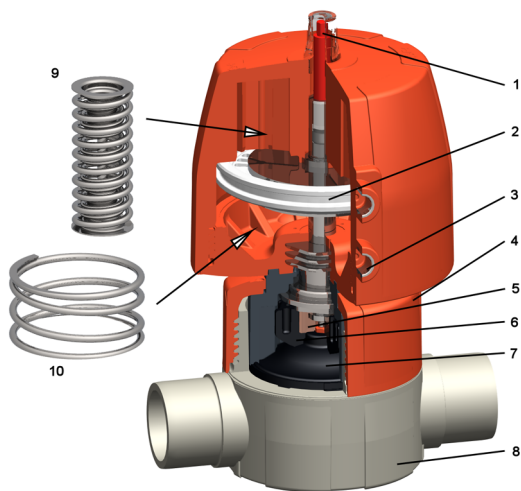
General	Title	Pneumatic Diaphragm valve DIASTAR			
	Type	Six	Ten	TenPlus	Sixteen
	Dimension DN	15 - 50	15 - 50	15 - 50	15 - 50
	Nominal pressure PN	6	10	bis 10 both sides	bis 16
Materials	alve body	PP-GF30 (orange) for PN10 or PPS-GF40 (black) for PN16			
	Piston	Metal and PP-GF30 white (Polypropylen, 30 % fiberglass-reinforced)			
	Position indicator / Indicator cap	PP / SAN			
	Spindle	X14CrMoS17			
	Springs	zinc coated stell			
	Seals (piston and stem)	NBR			
	Umgebungstemperatur	- 10 °C bis 50 °C			
	Metal inserts – valve body	X6CrMoS17			
	Metal inserts – air connection:	9SMnPb28k			
	Metal inserts for accessory interface:	CuZn39Pb3			
Functions	FC (Fail safe to close)	+	+	+	+
	FO (Fail safe to open)		+		
	DA (Double Acting)		+		
Materials for valve body	PVC-U	+	+	+	+
	PVC-C	+	+	+	+
	ABS	+	+	+	+
	PROGEF Standard	+	+	+	+
	PROGEF Natural		+	+	+
	SYGEF Standard		+	+	+
	SYGEF Plus		+	+	+
Seal materials	EPDM	+	+	+	+
	PFTE / EPDM		+	+	+
	PFTE/ FPM		+	+	+
	FPM	On request	+	+	+
	NBR	On request	+	+	+
	FFPM	+	+	+	+
Valves types	514	+	+	+	+
	515	+	+	+	+
	517	On request	+	+	+
	519		+	+	+
Connection types	Screw	+	+	+	+
	Sockets	+	+	+	+
	Spigots	+	+	+	+
	Flange	On request	+	+	+
	IR spigots	+	+	+	+
	BCF spigots		+	+	+
Accessories	Limiter		+	+	+
	Manual operation		+	+	+
	Stroke limiter		+	+	+

Positioner		+	+	+
Bus-connection	+*	+	+	+

*With appropriate pilot valve or valve island

Graph

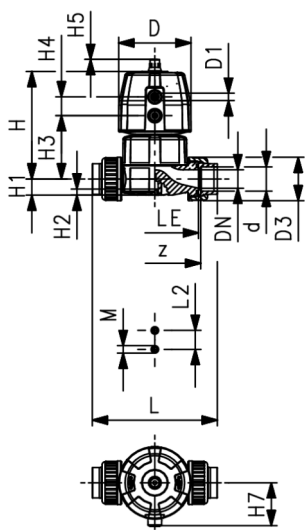
Exploded view



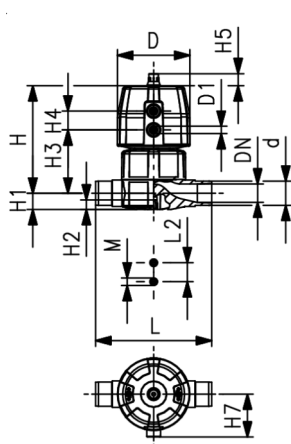
- 1 Optical position indicator with cap
- 2 Piston
- 3 Air connections
- 4 All-plastic housing
- 5 Diaphragm holder
- 6 Compressor
- 7 Diaphragm
- 8 Valve body
- 9 Pre-loaded spring sets for FC-mode
- 10 Spring for FO mode

Dimensions

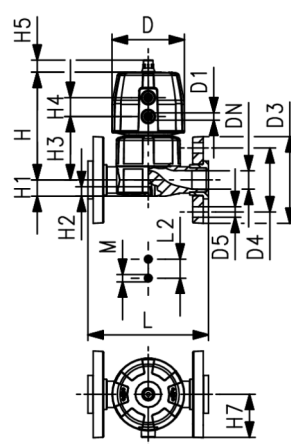
Type 514



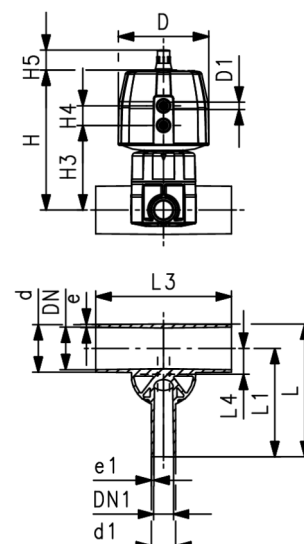
Type 515



Type 517



Type 519



Legende

- L(1) Union with cemented socket, metric
- L(2) Union with threaded socket, metric
- L(3) Union with fusion socket
- L(4) Union with butt fusion spigot
- L(5) Union with butt fusion spigot (PVDF)
- L(6) Butt fusion spigot
- L(7) Cemented spigot, metric
- L(8) Socket fusion spigot
- L(9) Backing flange, metric

DIASTAR Six FC (Type 514 - 517)

d	DN	D	D1	D4	D5	L(1)	L(2)	L(3)	L(4)	L(5)	L(6)	L(7)
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	68	1/8"	65	14	128	128	128	224	196	124	124
25	20	96	1/8"	75	14	152	152	150	250	221	144	144
32	25	96	1/8"	85	14	166	166	162	262	234	154	154
40	32	120	1/8"	100	18	192	192	184	296	260	174	174
50	40	120	1/8"	110	18	222	222	210	328	284	194	194
63	50	120	1/8"	125	18	266	266	248	370	321	224	224

d	DN	L(8)	L(9)	L2	H	H1	H2	H3	H7	M	z	LE	z for L(3)	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	mm
20	15	124	130	25	101	14	12	60	43	M6	96	90	100	7
25	20	144	150	25	132	18	12	73	57	M6	114	108	118	10
32	25	154	160	25	143	22	12	84	57	M6	122	116	126	13
40	32	174	180	45	173	26	15	99	69	M8	140	134	144	14
50	40	194	200	45	193	32	15	119	69	M8	160	154	164	16
63	50	224	230	45	205	39	15	132	69	M8	190	184	194	16

DIASTAR Ten FC (Type 514 - 517)

d	DN	D	D1	D4	D5	L(1)	L(2)	L(3)	L(4)	L(5)	L(6)	L(7)	L(8)
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	68	1/8"	65	14	128	128	128	224	196	124	124	124
25	20	96	1/8"	75	14	152	152	150	250	221	144	144	144
32	25	96	1/8"	85	14	166	166	162	262	234	154	154	154
40	32	120	1/8"	100	18	192	192	184	296	260	174	174	174
50	40	150	1/4"	110	18	222	222	210	328	284	194	194	194
63	50	150	1/4"	125	18	266	266	248	370	321	224	224	224

d	DN	L(9)	L2	H	H1	H2	H3	H4	H5	H7	M	z	LE	z for L(3)	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	130	25	101	14	12	60	24	16	43	M6	96	90	100	7
25	20	150	25	132	18	12	73	25	16	57	M6	114	108	118	10
32	25	160	25	143	22	12	84	25	16	57	M6	122	116	126	13
40	32	180	45	173	26	15	99	26	26	69	M8	140	134	144	15
50	40	200	45	214	32	15	119	36	26	88	M8	160	154	164	19
63	50	230	45	226	39	15	132	36	26	88	M8	190	184	194	23

DIASTAR Sixteen FC (Type 514 - 517)

d	DN	D	D1	D4	D5	L(1)	L(2)	L(3)	L(4)	L(5)	L(6)	L(7)	L(8)
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	96	1/8"	65	14	128	128	128	224	196	124	124	124
25	20	96	1/8"	75	14	152	152	150	250	221	144	144	144
32	25	120	1/8"	85	14	166	166	162	262	234	154	154	154
40	32	150	1/4"	100	18	192	192	184	296	260	174	174	174
50	40	180	1/4"	110	18	222	222	210	328	284	194	194	194
63	50	180	1/4"	125	18	266	266	248	370	321	224	224	224

d	DN	L(9)	L2	H	H1	H2	H3	H4	H5	H7	M	z	z for L(3)	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	130	25	127	14	12	68	25	16	57	M6	96	100	7
25	20	150	25	132	18	12	73	25	16	57	M6	114	118	10
32	25	160	25	167	22	12	93	26	26	69	M6	122	126	13
40	32	180	45	196	26	15	101	36	26	88	M8	140	144	15
50	40	200	45	239	32	15	124	37	26	103	M8	160	164	19
63	50	230	45	251	39	15	137	37	26	103	M8	190	194	23

DIASTAR TenPlus FC (Type 514 - 517)

d	DN	D	D1	D4	D5	L(1)	L(2)	L(3)	L(4)	L(5)	L(6)	L(7)	L(8)
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	96	1/8"	65	14	128	128	128	224	196	124	124	124
25	20	96	1/8"	75	14	152	152	150	250	221	144	144	144
32	25	120	1/8"	85	14	166	166	162	262	234	154	154	154
40	32	150	1/4"	100	18	192	192	184	296	260	174	174	174
50	40	180	1/4"	110	18	222	222	210	328	284	194	194	194
63	50	180	1/4"	125	18	266	266	248	370	321	224	224	224

d	DN	L(9)	L2	H	H1	H2	H3	H4	H5	H7	M	z	z for L(3)	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm
20	15	130	25	127	14	12	68	25	16	57	M6	96	100	7
25	20	150	25	132	18	12	73	25	16	57	M6	114	118	10
32	25	160	25	167	22	12	93	26	26	69	M6	122	126	13
40	32	180	45	196	26	15	101	36	26	88	M8	140	144	15
50	40	200	45	239	32	15	124	37	26	103	M8	160	164	19
63	50	230	45	251	39	15	137	37	26	103	M8	190	194	23

DIASTAR Ten FO / DA (Type 514 - 517)

d	DN	D	D1	D4	D5	L(1)	L(2)	L(3)	L(4)	L(5)	L(6)	L(7)	L(8)
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	15	68	1/8"	65	14	128	128	128	224	196	124	124	124
25	20	96	1/8"	75	14	152	152	150	250	221	144	144	144
32	25	96	1/8"	85	14	166	166	162	262	234	154	154	154
40	32	120	1/8"	100	18	192	192	184	296	260	174	174	174
50	40	150	1/4"	110	18	222	222	210	328	284	194	194	194
63	50	150	1/4"	125	18	266	266	248	370	321	224	224	224

d	DN	L(9)	L2	H	H1	H2	H3	H4	H5	H7	M	z	LE	z for L(3)	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm
20	15	130	25	101	14	12	60	24	16	43	M6	96	90	100	7
25	20	150	25	132	18	12	73	25	16	57	M6	114	108	118	10
32	25	160	25	143	22	12	84	25	16	57	M6	122	116	126	13
40	32	180	45	173	26	15	99	26	26	69	M8	140	134	144	15
50	40	200	45	214	32	15	119	36	26	88	M8	160	154	164	19
63	50	230	45	226	39	15	132	36	26	88	M8	190	184	194	23

DIASTAR TenPlus FC (Type 519)

d	d1	DN	DN1	DN2	D	D1	L(6)	L1	L3	L4	H	H3	H4	H5	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	20	15	15	15	96	1/8"	117	96	162	12	130	71	25	16	7
25	20	20	15	20	96	1/8"	133	108	162	16	131	72	25	16	10
25	25	20	20	20	96	1/8"	133	108	162	16	131	72	25	16	10
32	20	25	15	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	25	25	20	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	32	25	25	25	120	1/8"	145	120	160	19	167	93	26	26	13
40	20	32	15	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	25	32	20	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	32	32	25	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	40	32	32	25	120	1/8"	174	153	180	23	175	101	26	26	13
50	20	40	15	20	96	1/8"	160	134	180	27	148	90	25	16	10
50	25	40	20	25	120	1/8"	160	134	180	28	180	106	26	26	13
50	32	40	25	25	120	1/8"	160	134	180	28	180	106	26	26	13
50	40	40	32	50	180	1/4"	209	169	209	33	249	135	37	26	23
50	50	40	40	50	180	1/4"	209	169	209	33	249	135	37	26	23
63	20	50	15	20	96	1/8"	177	144	180	33	155	96	25	16	10
63	25	50	20	25	120	1/8"	177	144	180	35	187	113	26	26	13
63	32	50	25	25	120	1/8"	177	144	180	35	187	113	26	26	13
63	40	50	32	50	180	1/4"	225	192	220	39	255	141	37	26	23
63	50	50	40	50	180	1/4"	225	192	220	39	255	141	37	26	23
63	63	50	50	50	180	1/4"	225	192	220	39	255	141	37	26	23
90	20	80	15	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	25	80	20	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	32	80	25	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	50	80	40	50	180	1/4"	254	207	250	51	269	155	37	26	23
90	63	80	50	50	180	1/4"	254	207	250	51	269	155	37	26	23
110	20	100	15	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	25	100	20	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	32	100	25	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	50	100	40	50	180	1/4"	276	219	250	60	279	165	37	26	23
110	63	100	50	50	180	1/4"	276	219	250	60	279	165	37	26	23

DIASTAR Sixteen FC (Type 519)

d	d1	DN	DN1	DN2	D	D1	L(6)	L1	L3	L4	H	H3	H4	H5	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	20	15	15	15	96	1/8"	117	96	162	12	130	71	25	16	7
25	20	20	15	20	96	1/8"	133	108	162	16	131	72	25	16	10
25	25	20	20	20	96	1/8"	133	108	162	16	131	72	25	16	10
32	20	25	15	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	25	25	20	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	32	25	25	25	120	1/8"	145	120	160	19	167	93	26	26	13
40	20	32	15	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	25	32	20	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	32	32	25	25	120	1/8"	149	128	180	23	175	101	26	26	13
40	40	32	32	25	120	1/8"	174	153	180	23	175	101	26	26	13
50	20	40	15	20	96	1/8"	160	134	180	27	148	90	25	16	10
50	25	40	20	25	120	1/8"	160	134	180	28	180	106	26	26	13
50	32	40	25	25	120	1/8"	160	134	180	28	180	106	26	26	13
50	40	40	32	50	180	1/4"	209	169	209	33	249	135	37	26	23
50	50	40	40	50	180	1/4"	209	169	209	33	249	135	37	26	23
63	20	50	15	20	96	1/8"	177	144	180	33	155	96	25	16	10
63	25	50	20	25	120	1/8"	177	144	180	35	187	113	26	26	13
63	32	50	25	25	120	1/8"	177	144	180	35	187	113	26	26	13
63	40	50	32	50	180	1/4"	225	192	220	39	255	141	37	26	23
63	50	50	40	50	180	1/4"	225	192	220	39	255	141	37	26	23
63	63	50	50	50	180	1/4"	225	192	220	39	255	141	37	26	23
90	20	80	15	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	25	80	20	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	32	80	25	25	120	1/8"	205	159	190	47	200	126	26	26	13
90	50	80	40	50	180	1/4"	254	207	250	51	269	155	37	26	23
90	63	80	50	50	180	1/4"	254	207	250	51	269	155	37	26	23
110	20	100	15	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	25	100	20	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	32	100	25	25	120	1/8"	227	171	190	56	209	135	26	26	13
110	50	100	40	50	180	1/4"	276	219	250	60	279	165	37	26	23
110	63	100	50	50	180	1/4"	276	219	250	60	279	165	37	26	23

DIASTAR Ten FO / DA (Type 519)

d	d1	DN	DN1	DN2	D	D1	L(6)	L1	L3	L4	H	H3	H4	H5	Hx
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
20	20	15	15	15	68	1/8"	117	96	162	12	104	63	24	16	7
25	20	20	15	20	96	1/8"	133	108	162	16	131	73	25	16	10
25	25	20	20	20	96	1/8"	133	108	162	16	131	73	25	16	10
32	20	25	15	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	25	25	20	20	96	1/8"	142	120	162	19	135	76	25	16	10
32	32	25	25	25	96	1/8"	145	120	160	19	143	84	25	16	13
40	20	32	15	25	96	1/8"	149	128	180	23	151	92	25	16	13
40	25	32	20	25	96	1/8"	149	128	180	23	151	92	25	16	13
40	32	32	25	25	96	1/8"	149	128	180	23	151	92	25	16	13
40	40	32	32	25	96	1/8"	174	153	180	23	151	92	25	16	13
50	20	40	15	20	96	1/8"	160	134	180	27	148	90	25	16	10
50	25	40	20	25	96	1/8"	160	134	180	28	156	97	25	16	13
50	32	40	25	25	96	1/8"	160	134	180	28	156	97	25	16	13
50	40	40	32	50	150	1/4"	209	169	209	33	224	129	36	26	23
50	50	40	40	50	150	1/4"	209	169	209	33	224	129	36	26	23
63	20	50	15	20	96	1/8"	177	144	180	33	155	96	25	16	10
63	25	50	20	25	96	1/8"	177	144	180	35	163	104	25	16	13
63	32	50	25	25	96	1/8"	177	144	180	35	163	104	25	16	13
63	40	50	32	50	150	1/4"	225	192	220	39	230	136	36	26	23
63	50	50	40	50	150	1/4"	225	192	220	39	230	136	36	26	23
63	63	50	50	50	150	1/4"	225	192	220	39	230	136	36	26	23
90	20	80	15	25	96	1/8"	205	159	190	47	176	117	25	16	13
90	25	80	20	25	96	1/8"	205	159	190	47	176	117	25	16	13
90	32	80	25	25	96	1/8"	205	159	190	47	176	117	25	16	13
90	50	80	40	50	150	1/4"	254	207	250	51	244	150	36	26	23
90	63	80	50	50	150	1/4"	254	207	250	51	244	150	36	26	23
110	20	100	15	25	96	1/8"	227	171	190	56	185	126	25	16	13
110	25	100	20	25	96	1/8"	227	171	190	56	185	126	25	16	13
110	32	100	25	25	96	1/8"	227	171	190	56	185	126	25	16	13
110	50	100	40	50	150	1/4"	276	219	250	60	254	160	36	26	23
110	63	100	50	50	150	1/4"	276	219	250	60	254	160	36	26	23

Technical facts

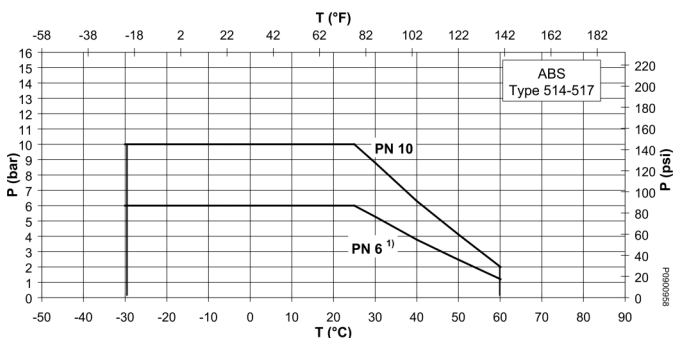
Pressure-Temperature-Diagram

The following Pressure-Temperature Diagrams are based on a lifetime of 25 years with water or similar media.



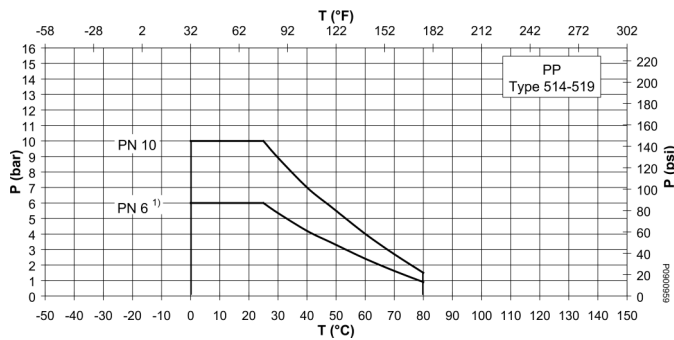
At operating temperatures below 0 °C please after commissioning the prescribed tightening torque control of the membrane, tighten if necessary.

ABS



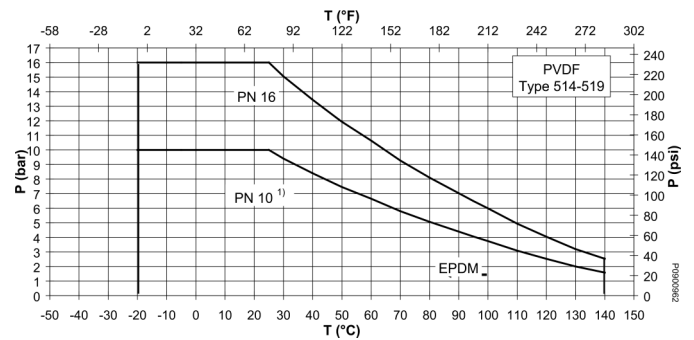
P Permissible pressure in bar, psi
T Temperature in °C, °F
1) Depending on the connection type and actuator, the nominal pressure is reduced to PN6

PP



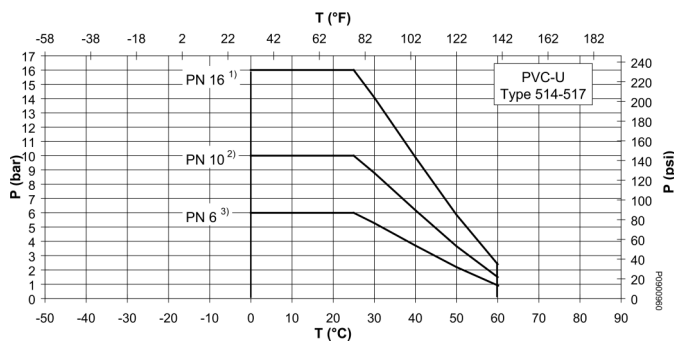
- P Permissible pressure in bar, psi
 T Temperature in °C, °F
 1) Depending on the connection type and actuator, the nominal pressure is reduced to PN6

PVDF



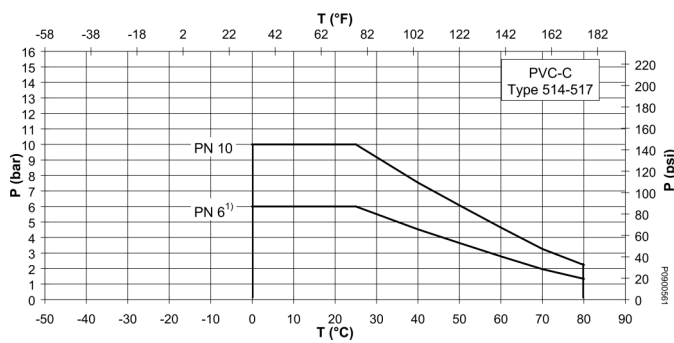
- P Permissible pressure in bar, psi
 T Temperature in °C, °F
 1) Depending on the connection type and actuator, the nominal pressure is reduced to PN10
 PN16 only with black PPS housing nut

PVC-U



- P Permissible pressure in bar, psi
 T Temperature in °C, °F
 1) Only with black PPS housing nut
 2) Depending on the connection type and actuator, the nominal pressure is reduced to PN10.
 3) Depending on the connection type and actuator, the nominal pressure is reduced to PN6

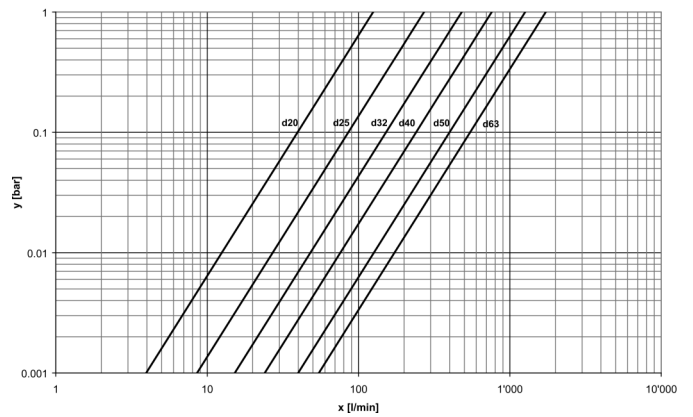
PVC-C



- P Permissible pressure in bar, psi
 T Temperature in °C, °F
 1) Depending on the connection type and actuator, the nominal pressure is reduced to PN6

Pressure loss

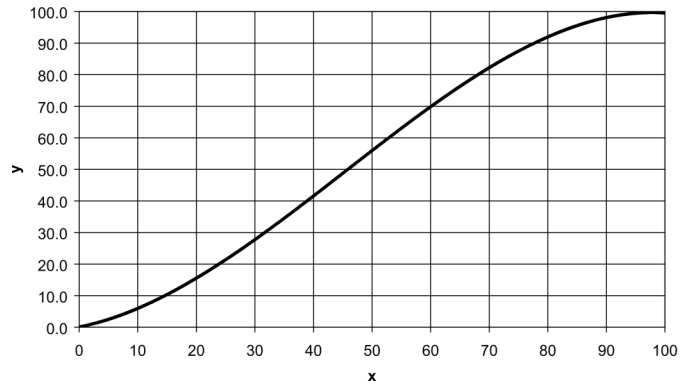
Typ 514...517



- x Flow rate in l/min
 y Pressure loss $\Delta p = 1$ bar

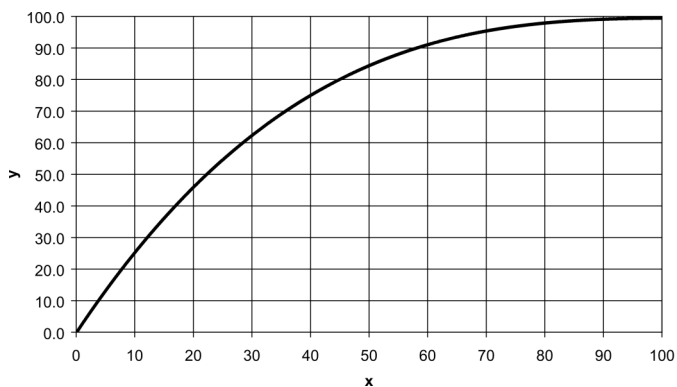
Flow characteristics

Type 514...517



- x Stroke in %
 y kv, Cv value in %

Type 519



kv 100 values

The kv values for each intermediate valve position can be determined by using the flow value characteristic and the kv 100 values.

Type 514 - 517

d [mm]	DN [mm]	kv [l/min] $\Delta p = 1\text{bar}$
20	15	125
25	20	271
32	25	481
40	32	759
50	40	1263 (960*)
63	50	1728 (1181*)

* DIASTAR SIX

Type 519

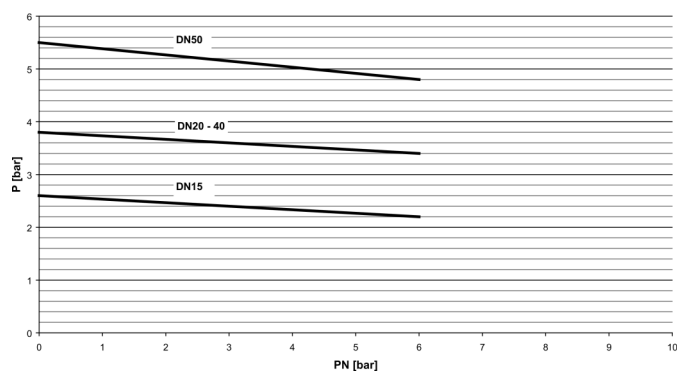
d [mm]	d1 [mm]	DN [mm]	DN1[mm]	kv [l/min] $\Delta p = 1\text{bar}$
20	20	15	15	57
25	20	20	15	89
25	25	20	20	118
32	20	25	15	80
32	25	25	20	105
32	32	25	25	231
40	20	32	15	85
40	25	32	20	119
40	32	32	25	153
40	40	32	32	187
50	20	40	15	86
50	25	40	20	160
50	32	40	25	206
50	40	40	32	524
50	50	40	40	667
63	20	50	15	84
63	25	50	20	150
63	32	50	25	184
63	40	50	32	471

63	50	50	40	610
63	63	50	50	747
90	20	80	15	82
90	25	80	20	103
90	32	80	25	129
90	50	80	40	623
90	63	80	50	696
110	20	100	15	78
110	25	100	20	103
110	32	100	25	131
110	50	100	40	604
110	63	100	50	661

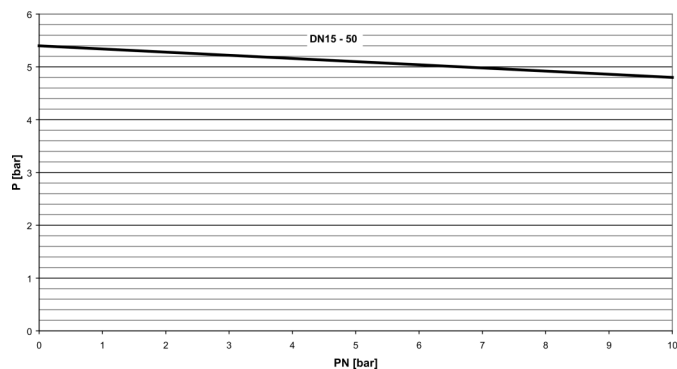
Control pressure diagram

The following diagrams show the control pressure depending on the nominal pressure PN.

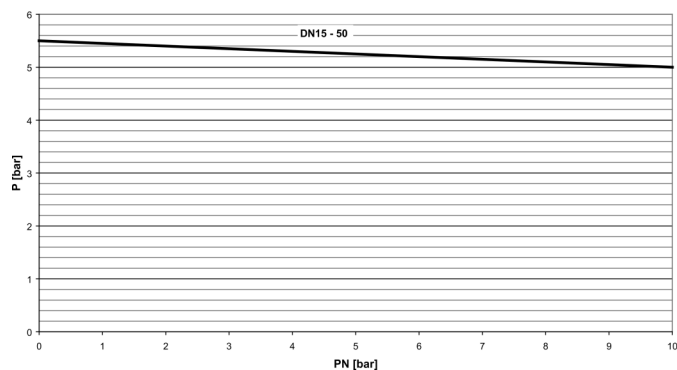
DIASTAR Six, FC with EPDM diaphragm



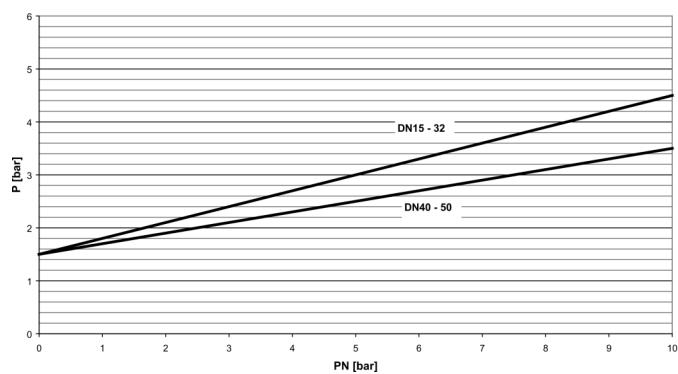
DIASTAR Ten, FC with EPDM diaphragm



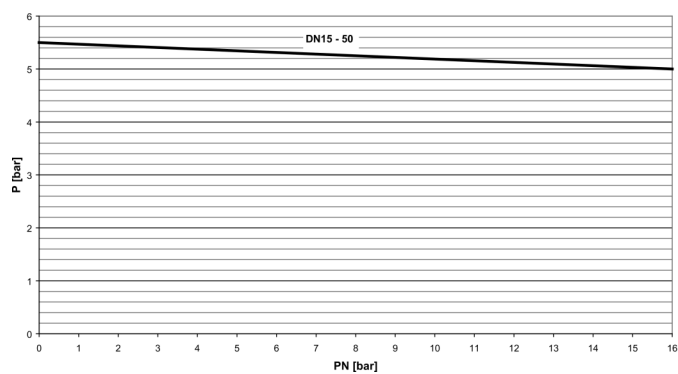
DIASTAR Ten, FC with PTFE diaphragm



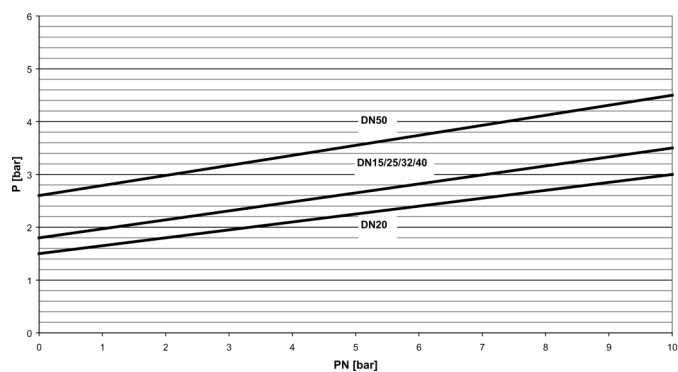
DIASTAR Ten, FO and DA with EPDM diaphragm



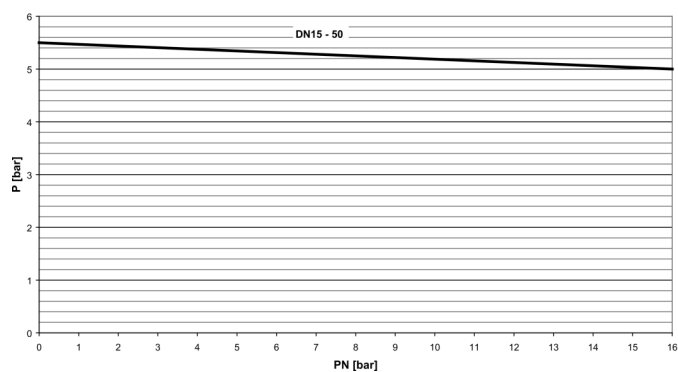
DIASTAR Sixteen, FC with EPDM diaphragm



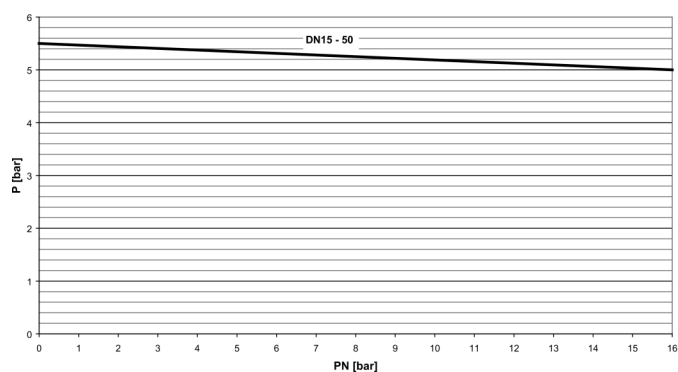
DIASTAR Ten, FO and DA with PTFE diaphragm



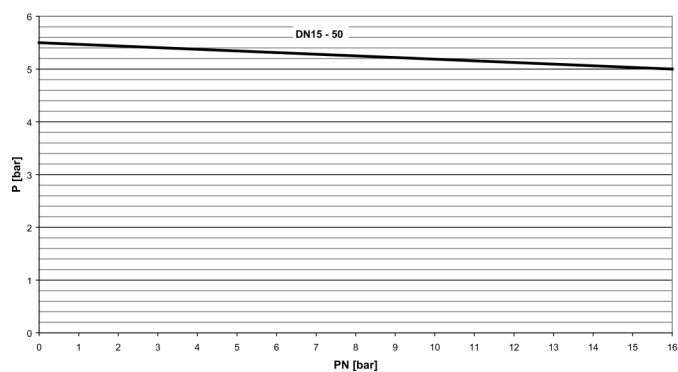
DIASTAR Sixteen, FC with PTFE diaphragm



DIASTAR TenPlus, FC with EPDM diaphragm



DIASTAR TenPlus, FC with PTFE diaphragm



Application at vacuum

Use of the diaphragm valve with static pressure:

- 0.5 bar

Pressure levels

Types	Six FC			Ten DA/FO			Ten FC		
Valve body material	PVC-U, PVC-C, ABS, PP-H			PVC-U, PVC-C, ABS, PP-H, PVDF, PVDF-HP			PVC-U, PVC-C, ABS, PP-H, PVDF, PVDF-HP		
Diaphragm	EPDM	PTFE	Control pressure	EPDM	PTFE	Control pressure	EPDM	PTFE	Control pressure
20DN15	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	10 bar	6 bar
25DN20	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	10 bar	6 bar
32DN25	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	10 bar	6 bar
40DN32	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	10 bar	6 bar
50DN40	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	10 bar	6 bar
63DN50	6 bar	-	6 bar	10 bar	10 bar	5 bar	10 bar	6 bar	6 bar
Working pressure	- >	-		- >	- >		- >	- >	

Types	Ten Plus			Sixteen FC		
Valve body material	PVC-U, PVC-C, ABS, PP-H, PVDF, PVDF-HP			PVC-U, PVDF, PVDF-HP		
Diaphragm	EPDM	PTFE	Control pressure	EPDM	PTFE	Control pressure
20DN15	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
25DN20	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
32DN25	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
40DN32	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
50DN40	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
63DN50	10 bar	10 bar	6 bar	16 bar	16 bar	6 bar
Working pressure	-><-	-><-		->	->	