

# George Fischer Pneumatically Actuated Diaphragm Valve +GF+ DIASTAR Type 025/028



- All-plastic actuator made of PP-GF
- Compact design
- Lightweight
- Comprehensive line of accessories
- Easy replacement of diaphragm
- Dimensions 1/2" - 6" (20 - 160 mm)
- Valve body made of PVC, CPVC, polypropylene (PP-H), natural polypropylene (PP-n), and PVDF
- Dual series actuators for standard and reduced pressures (FC)

## General

If you need to regulate and control neutral or aggressive media, George Fischer has the right valve for you. The +GF+ DIASTAR diaphragm valves represent a line of valves which are trendsetting in construction and design.

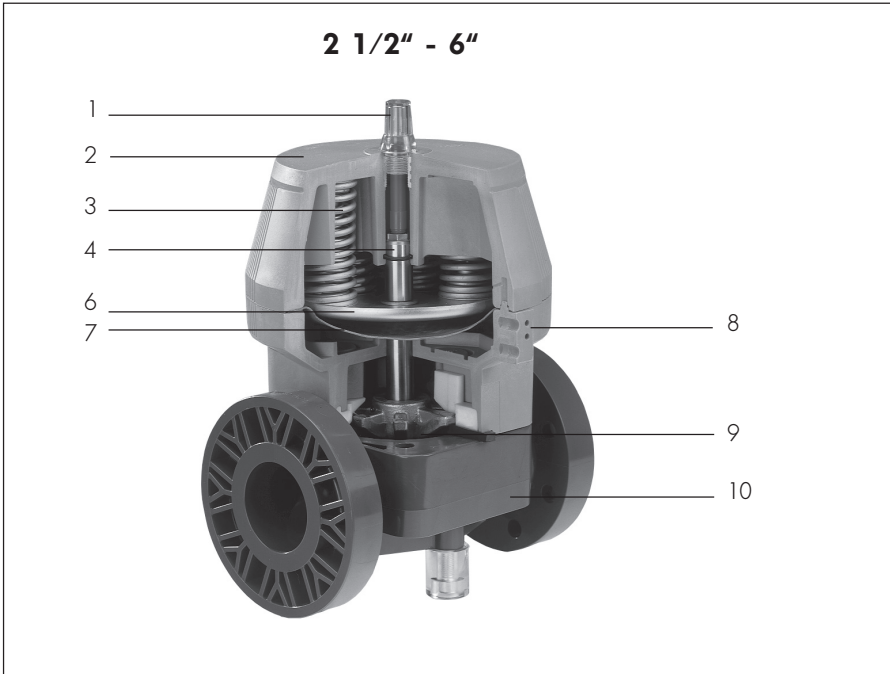
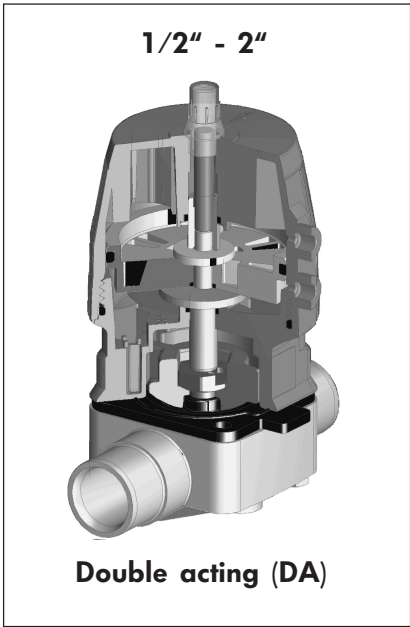
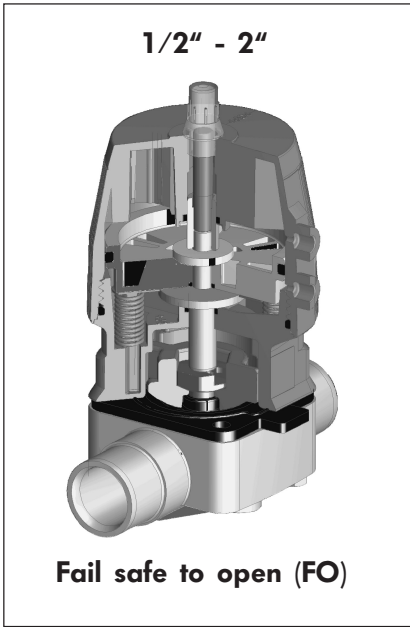
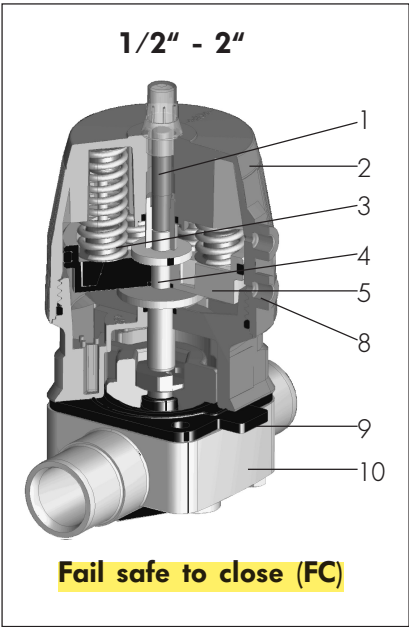
State-of-the-art materials technology and manufacturing methods as well as our extensive development know-how warrant excellent quality, longevity, and customer benefit.

Our wide selection of accessories provides solutions for diverse signals or communication between the valve and the user (interface). The outstanding price-performance ratio rounds off the features for this future-oriented product.

# Technical Features of the +GF+ DIASTAR

## Valve design

1. Visual position indicator
2. All-plastic housing of PP-GF
3. Pre-tensioned (safety) spring sets
4. Stroke spindle accessory of stainless steel
5. Pistons PP-GF (1/2"-2")
6. Diaphragm plate (2-1/2"-6")
7. Control diaphragm (2-1/2"-6")
8. Connection for compressed air
9. Diaphragm EPDM or PTFE
10. Valve body of PVC, CPVC, PP-H (polypropylene), PP-n (natural polypropylene), or PVDF



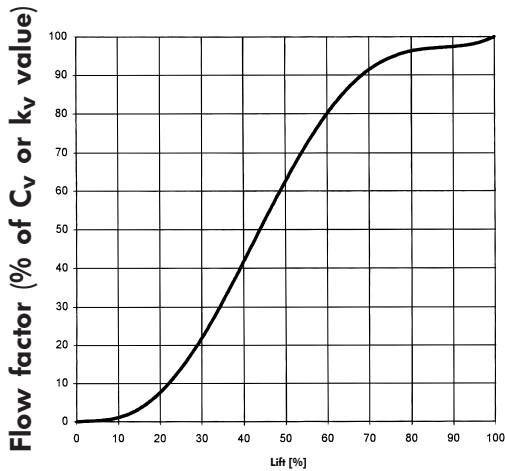
# +GF+ DIASTAR Diaphragm Valve

## Technical Data of Actuator

<b>Material:</b>	PP-GF
<b>Max. ambient temperature:</b>	32°F to 122°F/0°C to 50°C
<b>Control medium:</b>	<ul style="list-style-type: none"> <li>- Compressed air (oil-free)</li> <li>- Neutral, non-aggressive gases</li> <li>- Temperature max. 104°F/40°C</li> </ul>
<b>*Max. permissible control pressure:</b>	<ul style="list-style-type: none"> <li>- 105 psi/7 bar for fail safe to close (FC)</li> <li>- 75 psi/5 bar for fail safe to open (FO) and double acting (DA)</li> </ul>

\*Refer to Pressure Diagrams on next two pages.

## Flow Characteristics



### C<sub>v</sub>/k<sub>v</sub>100 Values

Inch size	OD d mm	ID DN mm	k <sub>v</sub> 100	C <sub>v</sub>	Lift mm
1/2	20	15	72	5.04	8
3/4	25	20	120	8.40	10
1	32	25	238	16.67	12
1 1/4	40	32	341	23.88	14
1 1/2	50	40	460	32.21	18
<b>2</b>	<b>63</b>	<b>50</b>	<b>685</b>	<b>47.97</b>	<b>22</b>
2 1/2	75	65	992	69.4	28
3	90	80	1700	119	35
4	110	100	2700	189	38
6	160	150	6033	422	38

11

## Sweep Volume

Inch size	FC		FO		1) DA 2)		OD d mm	OD DN mm
	inch <sup>3</sup>	inch <sup>3</sup>	inch <sup>3</sup>	inch <sup>3</sup>	inch <sup>3</sup>	inch <sup>3</sup>		
1/2	12.20	4.27	4.27	4.27			20	15
3/4	12.20	13.42	13.42	12.20			25	20
1	24.40	14.03	14.03	13.42			32	25
1-1/4	47.59	26.84	26.84	24.40			40	32
1-1/2	51.86	52.47	52.47	46.98			50	40
<b>2</b>	<b>81.15</b>	<b>92.75</b>	<b>92.75</b>	<b>73.22</b>			<b>63</b>	<b>50</b>
2-1/2 - 3	134.2	268.4	268.4	134.2			75-90	65-80
4 - 6	231.8	463.6	462.6	231.8			110-160	100-150

1) close 2) open

Inch size	FC		FO		1) DA 2)		OD d mm	OD DN mm
	dm <sup>3</sup>	dm <sup>3</sup>	dm <sup>3</sup>	dm <sup>3</sup>	dm <sup>3</sup>	dm <sup>3</sup>		
1/2	.20	.07	.07	.07			20	15
3/4	.20	.22	.22	.20			25	20
1	.40	.23	.23	.22			32	25
1-1/4	.78	.44	.44	.40			40	32
1-1/2	.85	.86	.86	.77			50	40
<b>2</b>	<b>1.33</b>	<b>1.52</b>	<b>1.52</b>	<b>1.20</b>			<b>63</b>	<b>50</b>
2-1/2 - 3	2.2	4.4	4.4	2.2			75-90	65-80
4 - 6	3.8	7.6	7.6	3.8			110-160	100-150

1) close 2) open

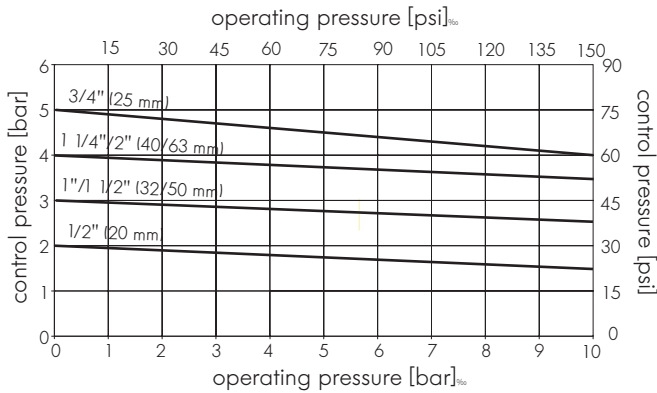
# +GF+ DIASTAR Diaphragm Valve

## Control/Operating Pressure Diagrams

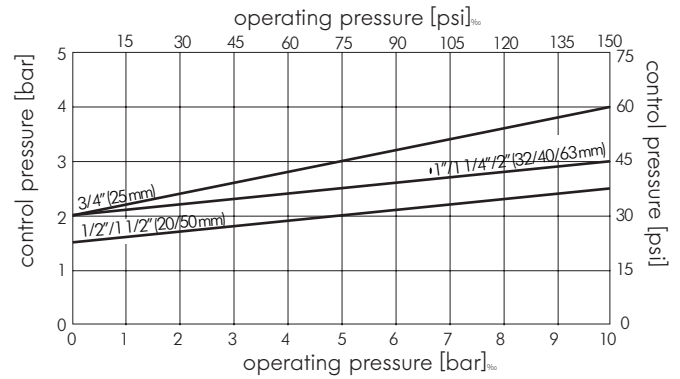
### 1/2" – 2" Type 025

Operating pressure on each side of the valve is 150/135 psi (10/9 bar) except for the 2" FO/DA PTFE valve it is 150/120 psi (10/8 bar).

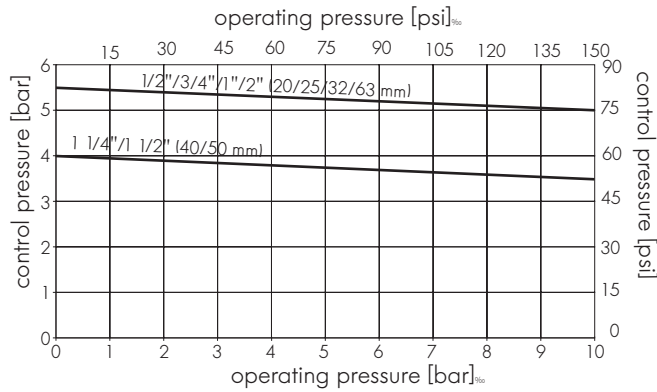
**Fail safe to close (FC)  
with EPDM diaphragm**



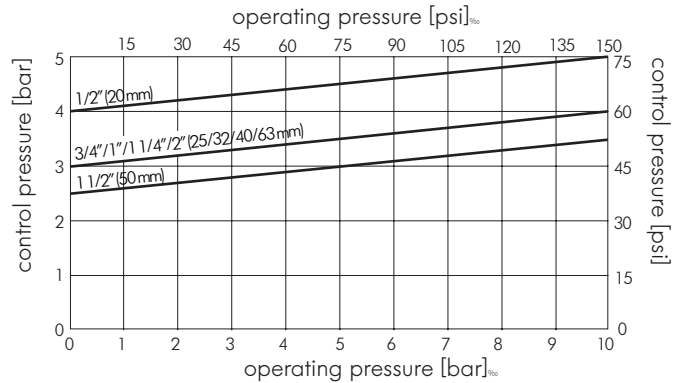
**Fail safe to open/Double acting (FO/DA)  
with EPDM diaphragm**



**Fail safe to close (FC)  
with PTFE diaphragm**

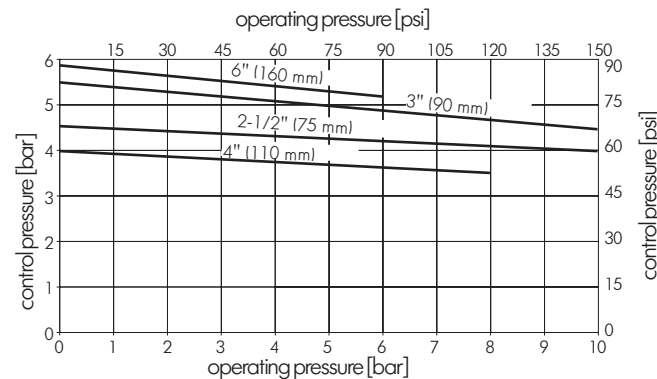


**Fail safe to open/double acting (FO/DA)  
with PTFE diaphragm**

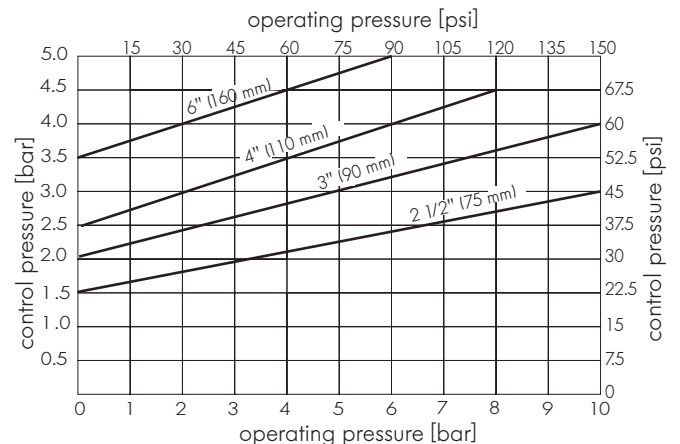


### 2 1/2" – 6" Type 025

**Control pressure max. 105 psi/7 bar  
Fail safe to close (FC)**



**Control pressure max. 75 psi/5 bar  
Fail safe to open/double acting (FO/DA)**



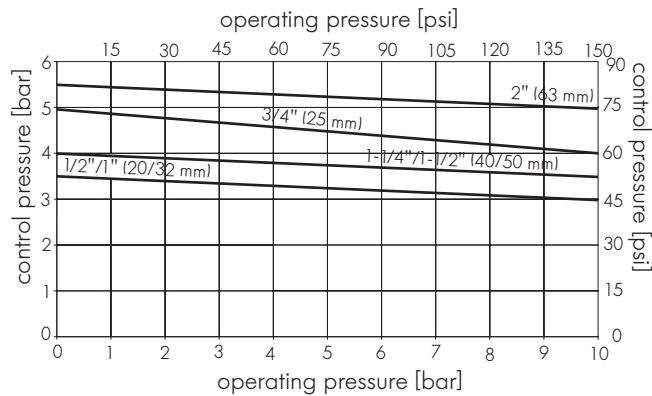
# +GF+ DIASTAR Diaphragm Valve

## Control/Operating Pressure Diagrams

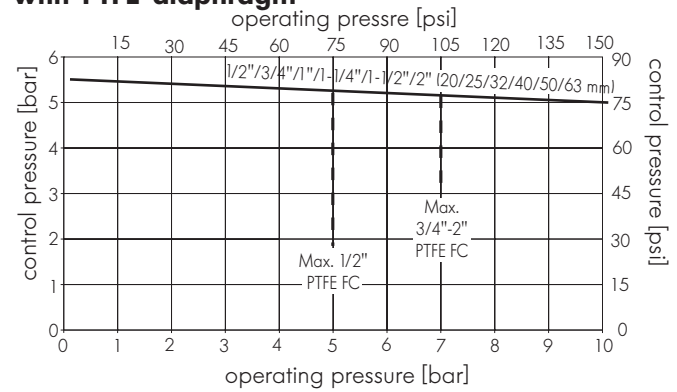
### 1/2" – 2" Type 028 (upstream pressure only)

Operating pressure on each side of the valve is 150/0 psi (10/0 bar) except when supplied with PTFE diaphragms where the maximum (upstream) operating pressure is 105 psi (7 bar), 1/2" valve is limited to 75 psi (5 bar).

#### Fail safe to close (FC) with EPDM diaphragm



#### Fail safe to close (FC) with PTFE diaphragm



Double Acting (DA) actuated zero-static valve with PTFE diaphragm, 150/0 psi.

Temperature/Pressure Diagram 025/028 (see "Technical Data for Actuated Diaphragm Valves Type 025/028" earlier in Section 11)

## Installation Instructions for +GF+ DIASTAR Pneumatically Actuated Diaphragm Valves

Recommended for newly purchased actuated diaphragm valves. Failure to follow these instructions may result in valve leakage which could be time consuming and expensive to correct.

The valve you are about to install was thoroughly checked for performance before it left our factory. **However due to natural relaxation of the diaphragm material, we strongly recommend that the bolt torque be checked prior to installation or immediately prior to pressure testing if the piping installation is under construction for a long period of time.**

These values are valid for an installation environment with normal ambient temperatures (20 –25°C).

4) it is important that the four bolts are progressively tightened in a cross pattern to the required torque and that this is done **with the valve open** so the load is evenly distributed upon the diaphragm and valve body.

5) For optimum performance after the first temperature cycle, George Fischer recommends to retighten the bolts to the defined torque (see table). Prior to retightening, follow the instructions above.

Attention: The diaphragms are not to be over-compressed.

\* Max. Torque for PTFE diaphragms, only

### Bolt Tightening Torques

Metric size d mm	Suggested starting torque inch-lbs.	Max. torque in lbs.*	Socket wrench size mm	F inch	K dia. mm	T depth inch	Inch size
20	22	34		0.98	M6	0.47	1/2
25	27	40	10	0.98	M6	0.47	3/4
32	35	53	10	0.98	M6	0.47	1
40	53	80	13	1.77	M8	0.59	1 1/4
50	89	133	13	1.77	M8	0.59	1 1/2
63	133	204	17	1.77	M8	0.59	2
75	221	221	19	2.76	M8	0.59	2 1/2
90	248	248	19	4.72	M12	0.91	3
110	266	266		4.72	M12	0.91	4
160	354	354		3.94	M12	0.91	6

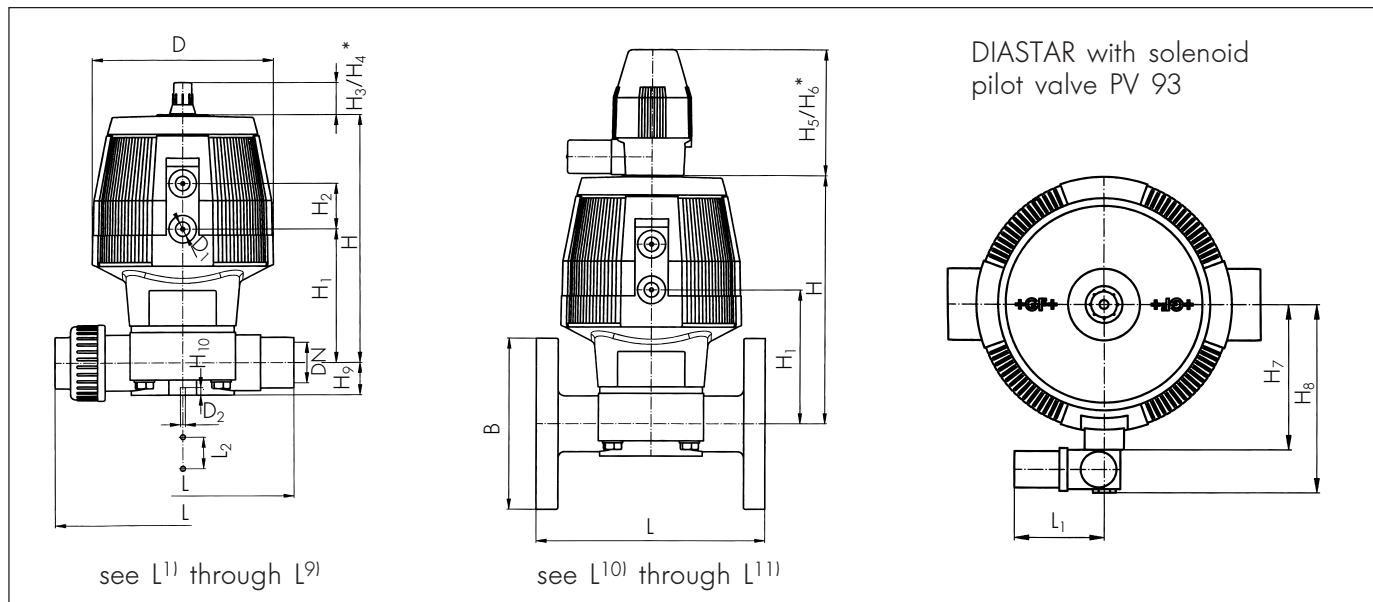
1) Ensure that the system is fully drained and free of internal pressure.

2) Actuate valve to the open position to relieve closing force on diaphragm.

3) Hold the lower bolt head with a wrench. Use a torque wrench, with the correct socket, to tighten the nuts on the top of the bonnet to the proper starting torque values (see table).

# +GF+ DIASTAR Pneumatically Actuated Diaphragm Valve

## Dimensions/Weights 1/2" – 2" Type 025 FC



### Fail safe to Close (FC)

Inch size	D inch	D1 G	B PVC/PP/PVDF inch	B CPVC inch	D2** inch	L <sup>1)</sup> inch	L <sup>2)</sup> inch	L <sup>3)</sup> inch	L <sup>4)</sup> inch	L <sup>5)</sup> inch	L <sup>6)</sup> inch	L <sup>7)</sup> inch	L <sup>8)</sup> inch	L <sup>9)</sup> inch	L <sup>10)</sup> inch	L <sup>11)</sup> inch	OD d mm	ID DN mm
1/2	3.78	1/8"	3.74	3.50	M6	5.35	5.04	7.72	7.72	8.86	5.62	4.88	4.88	5.24	5.12	5.91	20	15
3/4	3.78	1/8"	4.13	3.88	M6	6.30	5.91	8.70	8.66	9.53	6.30	5.67	5.67	5.67	5.91	6.54	25	20
1	4.72	1/8"	4.53	4.25	M6	6.93	6.38	9.21	9.21	10.00	6.83	6.06	6.06	6.30	7.09	7.56	32	25
1 1/4	5.91	1/4"	5.51	4.63	M8	7.80	7.24	10.24	10.16	12.13	7.40	6.89	6.85	7.83	7.09	7.56	40	32
1 1/2	7.09	1/4"	5.91	5.00	M8	9.13	8.27	11.18	11.18	12.99	8.07	7.60	7.64	8.07	7.87	8.27	50	40
2	7.09	1/4"	6.50	6.00	M8	10.55	9.76	12.64	12.60	14.69	8.86	8.74	8.82	8.82	9.06	9.06	63	50

Inch size	L1 inch	L2 inch	H inch	H1 inch	H2 inch	H3 inch	H4* inch	H5 inch	H6* inch	H7 inch	H8 inch	H9 inch	H10 inch	OD d mm	ID DN mm
1/2	2.36	.98	4.92	2.70	.98	.89	1.73	3.94	6.10	2.20	3.39	.55	.47	20	15
3/4	2.36	.98	5.00	2.76	.98	.89	1.73	3.94	6.10	2.20	3.46	.69	.47	25	20
1	2.36	.98	6.42	3.66	1.02	1.40	2.52	3.94	6.10	2.66	3.92	.83	.47	32	25
1 1/4	2.36	1.77	7.72	4.15	1.42	1.40	2.52	3.94	6.30	3.35	4.61	1.00	.59	40	32
1 1/2	2.36	1.77	8.94	4.67	1.46	1.40	2.52	3.94	6.69	3.98	5.24	1.28	.59	50	40
2	2.36	1.77	9.49	5.22	1.46	1.40	2.52	3.94	6.69	3.98	5.24	1.54	.59	63	50

\* H<sub>4</sub>/H<sub>6</sub> = with lift limiter/manual override

\*\*metric thread

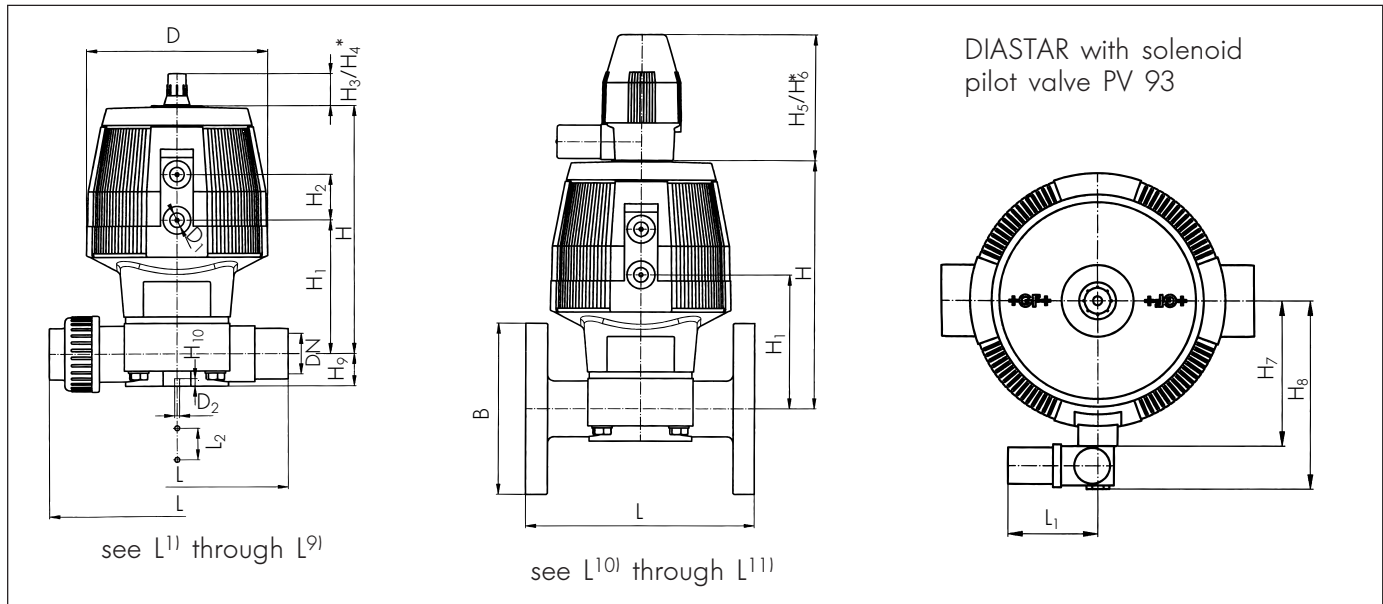
- 1) Union ends for solvent cement joining, PVC
- 2) Union ends for socket fusion joining (mm sizes), PP and PVDF
- 3) Union ends for butt fusion joining (mm sizes), PP
- 4) Union ends for butt fusion joining (mm sizes), PVDF
- 5) Union ends for BCF joining (mm sizes), PVDF
- 6) Spigot end connections for solvent cement joining (inch sizes), CPVC
- 7) Spigot end connections for butt and IR fusion (mm sizes), PP
- 8) Spigot end connections for socket fusion joining and IR ends (mm sizes), PP and PVDF
- 9) BCF ends (mm sizes), PVDF
- 10) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (PVC, PP, PVDF)
- 11) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (CPVC)

## Weight

Inch size	Type 025 - FC			OD d mm	ID DN mm
	PVC lbs.	PP/PP-n lbs.	PVDF lbs.		
1/2	1.76	1.54	1.76	20	15
3/4	1.98	1.76	1.98	25	20
1	3.53	3.09	3.75	32	25
1 1/4	6.39	5.73	6.61	40	32
1 1/2	10.36	9.26	10.80	50	40
2	11.68	9.92	12.57	63	50

# +GF+ DIASTAR Pneumatically Actuated Diaphragm Valve

## Dimensions/Weights 1/2" - 2" Type 025 FO/DA



### Fail safe to Open/Double Acting (FO/DA)

Inch size	D inch	D1 G	B PVC/PP/PVDF inch	B CPVC inch	D2** inch	L <sup>1)</sup> inch	L <sup>2)</sup> inch	L <sup>3)</sup> inch	L <sup>4)</sup> inch	L <sup>5)</sup> inch	L <sup>6)</sup> inch	L <sup>7)</sup> inch	L <sup>8)</sup> inch	L <sup>9)</sup> inch	L <sup>10)</sup> inch	L <sup>11)</sup> inch	OD d mm	ID DN mm
1/2	2.67	1/8"	3.74	3.50	M6	5.35	5.04	5.12	7.72	8.86	5.62	4.88	4.88	5.24	5.12	5.91	20	15
3/4	3.78	1/8"	4.13	3.88	M6	6.30	5.98	5.91	8.66	9.53	6.30	5.67	5.67	5.91	6.54	6.54	25	20
1	3.78	1/8"	4.53	4.25	M6	6.93	6.54	6.30	9.21	10.00	6.83	6.06	6.06	6.06	6.30	7.09	32	25
1 1/4	4.72	1/8"	5.51	4.63	M8	7.80	7.56	7.09	10.16	12.13	7.40	6.89	6.85	7.83	7.09	7.56	40	32
1 1/2	5.91	1/4"	5.91	5.00	M8	9.13	8.74	7.87	11.18	12.99	8.07	7.60	7.64	8.07	7.87	8.27	50	40
2	5.91	1/4"	6.50	6.00	M8	10.55	10.47	9.06	12.60	14.69	8.86	8.74	8.82	8.82	9.06	9.06	63	50

Inch size	L1 inch	L2 inch	H inch	H1 inch	H2 inch	H3 inch	H4* inch	H5 inch	H6* inch	H7 inch	H8 inch	H9 inch	H10 inch	OD d mm	ID DN mm
1/2	2.36	.98	3.86	2.30	.94	.89	1.73	3.94	6.10	1.71	2.97	.55	.47	20	15
3/4	2.36	.98	5.00	2.78	.98	.89	1.73	3.94	6.10	2.20	3.46	.69	.47	25	20
1	2.36	.98	5.55	3.33	.98	.89	1.73	3.94	6.10	2.20	3.46	.83	.47	32	25
1 1/4	2.36	1.77	6.57	3.82	1.02	1.40	2.52	3.94	6.30	2.66	3.92	1.00	.59	40	32
1 1/2	2.36	1.77	7.80	4.23	1.42	1.40	2.52	3.94	6.69	3.35	4.61	1.28	.59	50	40
2	2.36	1.77	8.50	4.94	1.42	1.40	2.52	3.94	6.69	3.35	4.61	1.54	.59	63	50

\* H<sub>4</sub>/H<sub>6</sub> = with lift limiter/manual override

\*\*metric thread

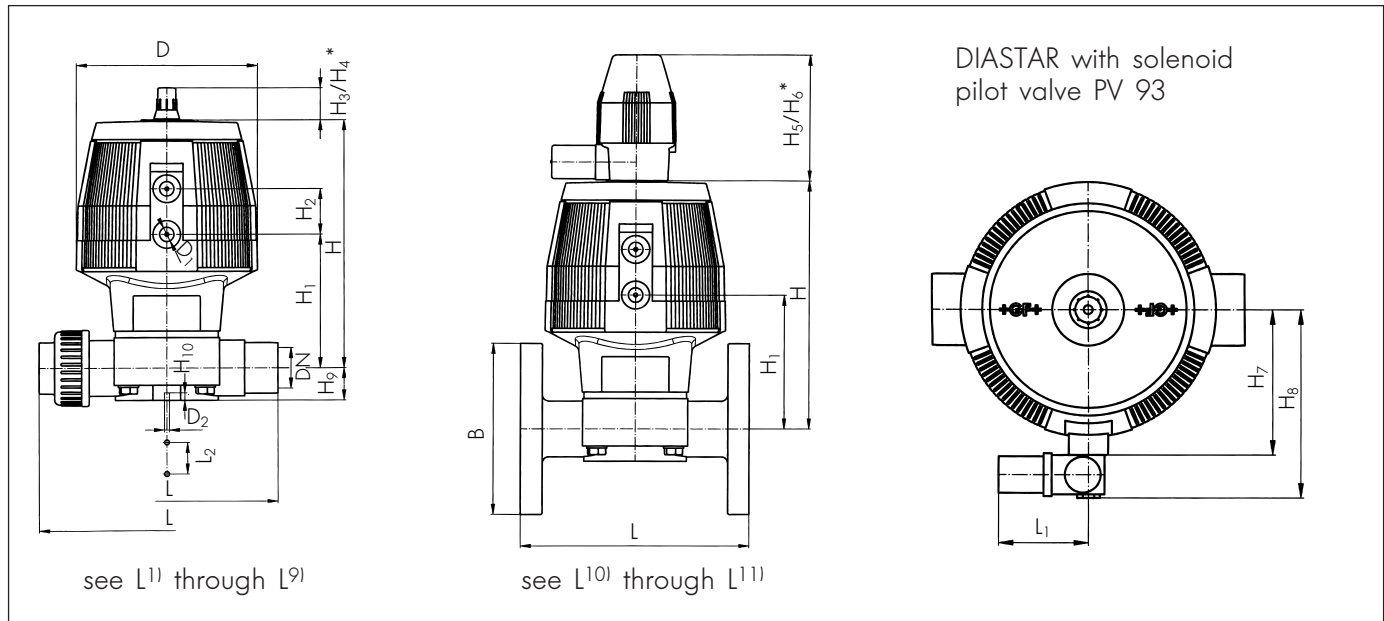
- 1) Union ends for solvent cement joining, PVC
- 2) Union ends for socket fusion joining (mm sizes), PP and PVDF
- 3) Union ends for butt fusion joining (mm sizes), PP
- 4) Union ends for butt fusion joining (mm sizes), PVDF
- 5) Union ends for BCF joining (mm sizes), PVDF
- 6) Spigot end connections for solvent cement joining (inch sizes), CPVC
- 7) Spigot end connections for butt and IR fusion (mm sizes), PP
- 8) Spigot end connections for socket fusion joining and IR ends (mm sizes), PP and PVDF
- 9) BCF ends (mm sizes), PVDF
- 10) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (PVC, PP, PVDF)
- 11) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (CPVC)

## Weight

Inch size	Type 025 - FO/DA			OD d mm	ID DN mm
	PVC lbs.	PP/PP-n lbs.	PVDF lbs.		
1/2	0.88	0.44	0.66	20	15
3/4	1.32	1.32	1.54	25	20
1	1.76	1.54	1.98	32	25
1 1/4	3.31	3.09	3.53	40	32
1 1/2	5.29	3.75	5.95	50	40
2	9.04	6.61	11.46	63	50

# +GF+ DIASTAR Pneumatically Actuated Diaphragm Valve

## Dimensions/Weights 1/2" – 2" Type 028 FC (Reduced Pressure)



Fail safe to Close (FC)

Inch size	D inch	D <sub>1</sub> G	B PVC/PP/PVDF inch	B CPVC inch	D <sub>2</sub> ** inch	L <sup>(1)</sup> inch	L <sup>(2)</sup> inch	L <sup>(3)</sup> inch	L <sup>(4)</sup> inch	L <sup>(5)</sup> inch	L <sup>(6)</sup> inch	L <sup>(7)</sup> inch	L <sup>(8)</sup> inch	L <sup>(9)</sup> inch	L <sup>(10)</sup> inch	L <sup>(11)</sup> inch	OD d mm	ID DN mm
1/2	2.67	1/8"	3.74	3.50	M6	5.35	5.04	7.72	7.72	8.86	5.62	4.88	4.88	5.24	5.12	5.91	20	15
3/4	3.78	1/8"	4.13	3.88	M6	6.30	5.91	8.70	8.66	9.53	6.30	5.67	5.67	5.67	5.91	6.54	25	20
1	3.78	1/8"	4.53	4.25	M6	6.93	6.38	9.21	9.21	10.00	6.83	6.06	6.06	6.06	6.30	7.09	32	25
1 1/4	4.72	1/8"	5.51	4.63	M8	7.80	7.24	10.24	10.16	12.13	7.40	6.89	6.85	7.83	7.09	7.56	40	32
1 1/2	5.91	1/4"	5.91	5.00	M8	9.13	8.27	11.18	11.18	12.99	8.07	7.60	7.64	8.07	7.87	8.27	50	40
2	5.91	1/4"	6.50	6.00	M8	10.55	9.76	12.64	12.60	14.69	8.86	8.74	8.82	8.82	9.06	9.06	63	50

Inch size	L <sub>1</sub> inch	L <sub>2</sub> inch	H inch	H <sub>1</sub> inch	H <sub>2</sub> inch	H <sub>3</sub> inch	H <sub>4</sub> * inch	H <sub>5</sub> inch	H <sub>6</sub> * inch	H <sub>7</sub> inch	H <sub>8</sub> inch	H <sub>9</sub> inch	H <sub>10</sub> inch	OD d mm	ID DN mm
1/2	2.36	.98	3.86	2.30	.94	.89	1.73	3.94	5.91	1.71	2.97	.55	.47	20	15
3/4	2.36	.98	5.00	2.78	.98	.89	1.73	3.94	6.54	2.20	3.46	.69	.47	25	20
1	2.36	.98	5.55	3.33	.98	.89	1.73	3.94	7.09	2.20	3.46	.83	.47	32	25
1 1/4	2.36	1.77	6.57	3.82	1.02	1.40	2.52	3.94	7.56	2.66	3.92	1.00	.59	40	32
1 1/2	2.36	1.77	7.80	4.23	1.42	1.40	2.52	3.94	8.27	3.35	4.61	1.28	.59	50	40
2	2.36	1.77	8.50	4.94	1.42	1.40	2.52	3.94	9.06	3.35	4.61	1.54	.59	63	50

\* H<sub>4</sub>/H<sub>6</sub> = with lift limiter/manual override

\*\*metric thread

- 1) Union ends for solvent cement joining, PVC
- 2) Union ends for socket fusion joining (mm sizes), PP and PVDF
- 3) Union ends for butt fusion joining (mm sizes), PP
- 4) Union ends for butt fusion joining (mm sizes), PVDF
- 5) Union ends for BCF joining (mm sizes), PVDF
- 6) Spigot end connections for solvent cement joining (inch sizes), CPVC
- 7) Spigot end connections for butt and IR fusion (mm sizes), PP
- 8) Spigot end connections for socket fusion joining and IR ends (mm sizes), PP and PVDF
- 9) BCF ends (mm sizes), PVDF
- 10) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (PVC, PP, PVDF)
- 11) Loose ring flanges 1/2" - 2 1/2" ; integrally molded, fixed flanges 3" - 6" (CPVC)

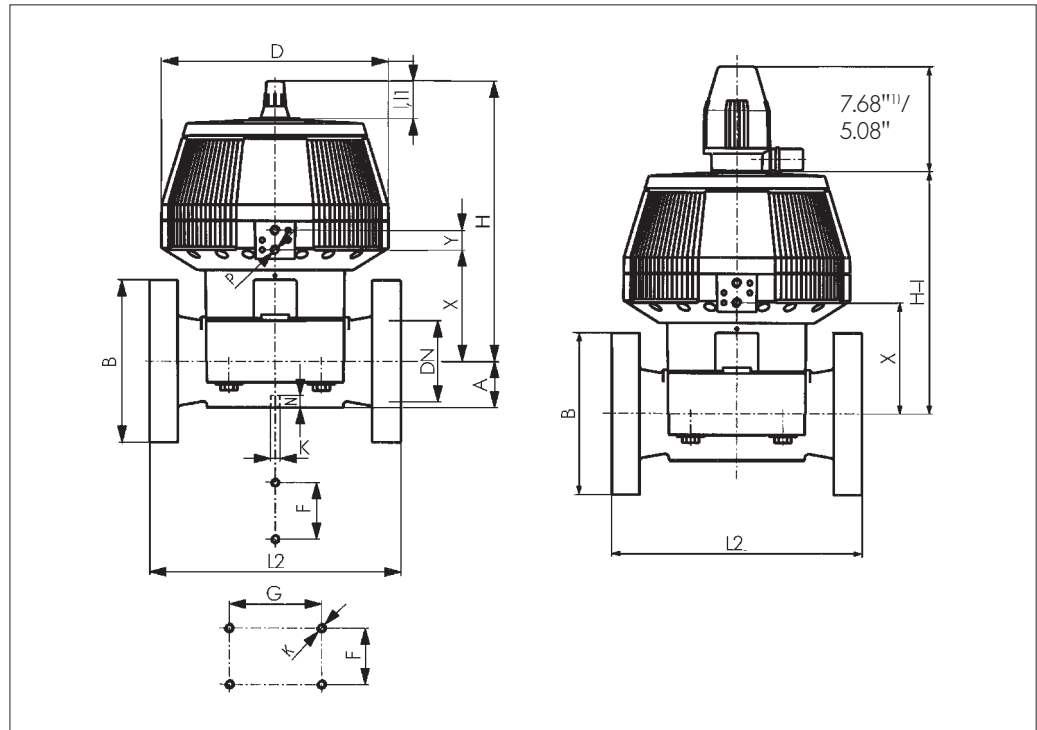
## Weight

Inch size	Type 028 - FC			OD d mm	ID DN mm
	PVC lbs.	PP/PP-n lbs.	PVDF lbs.		
1/2	1.10	0.66	0.88	20	15
3/4	1.98	1.98	1.98	25	20
1	2.43	2.20	2.65	32	25
1 1/4	4.19	3.97	4.63	40	32
1 1/2	7.28	5.73	7.94	50	40
2	10.36	8.60	14.34	63	50



# +GF+ DIASTAR Pneumatically Actuated Diaphragm Valve

## Dimensions/Weights 2 1/2" - 6"



<sup>1)</sup> with Stroke limiter/  
Emergency manual  
override

Inch size	A inch	B inch	D inch	F inch	G inch	H inch	H1 inch	I inch	I1 <sup>1)</sup> inch	K mm
2-1/2	1.81	7.28	11.02	2.76	-	13.54	11.73	1.81	3.94	M8
3	2.24	7.87	11.02	4.72	-	13.70	11.89	1.81	3.94	M12
4	2.72	8.86	13.19	4.72	-	15.55	13.74	1.81	3.94	M12
6	4.25	11.22	13.19	3.94	7.87	17.91	16.10	1.81	3.94	M12

\* Fail-safe to close  
function

L2 inch	N inch	P inch	X inch	Y inch	Weight */lbs			OD d mm	ID DN mm
					PVC	PP	PVDF		
11.42	0.59	1/4	5.83	0.94	29.98	30.20	31.31	75	65
12.20	0.59	1/4	5.91	0.94	38.36	35.27	41.23	90	80
13.78	0.79	1/4	6.93	0.94	54.45	50.26	58.42	110	100
18.90	0.79	1/4	9.33	0.94	77.16	73.63	84.22	160	150

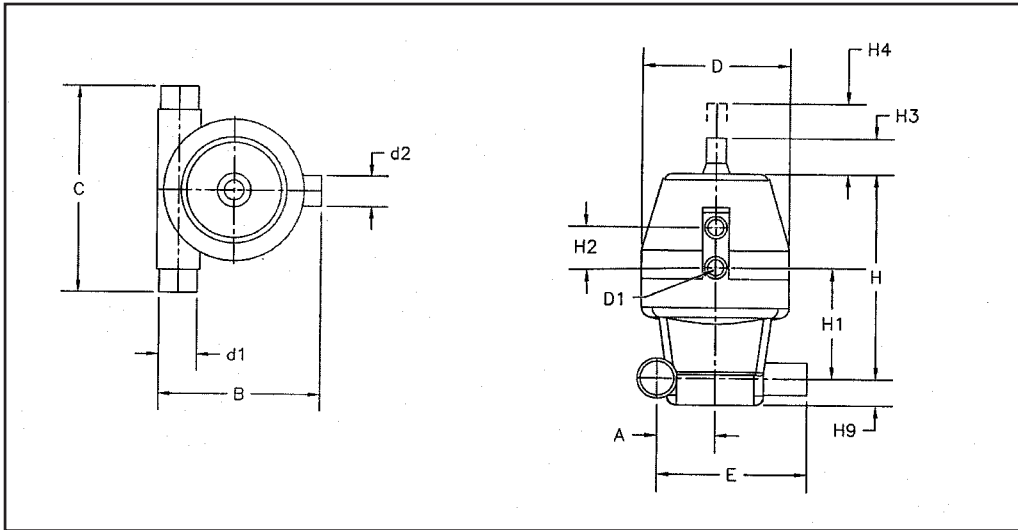
## Product Specification +GF+ DIASTAR Diaphragm Valve

Available in 1/2" - 6" sizes in PVC, CPVC, Polypropylene (PP-H), Natural Polypropylene (PP-n) and SYGEF-PVDF valve body materials and EPDM or PTFE/EPDM seals. The actuator housing is glass filled polypropylene, (NEMA 4X or IP 65 corrosion resistance). Available accessories include

optional stroke limiter/manual override, limit switches, and 4 - 20mA output for position feedback. Functions shall include Air to Spring (Fail Open or Fail Close) or Air to Air (Double Acting). Contact George Fischer Inc., Tustin, CA 92780 for additional details.

# +GF+ DIASTAR Zero Static Diaphragm Valve

## Dimensions



Metric size ( $d_1 - d_2$ )	A inch	B inch	C inch	D inch	D1 inch	E inch	H inch	H1 inch	H2 inch	H3 inch	H4* inch	H9 inch	Closest inch size
20 x 20 mm	1.18	4.17	5.51	2.67	G1/8	3.78	3.86	2.30	.94	.89	1.73	.55	1/2 x 1/2
25 x 20 mm	1.42	4.74	5.91	3.78	G1/8	4.25	5.00	2.78	.98	.89	1.73	.69	3/4 x 1/2
25 x 25 mm	1.42	4.74	5.91	3.78	G1/8	4.25	5.00	2.78	.98	.89	1.73	.69	3/4 x 3/4
32 x 20 mm	1.70	5.40	6.30	3.78	G1/8	4.73	5.55	3.33	.98	.89	1.73	.83	1 x 1/2
32 x 25 mm	1.70	5.40	6.30	3.78	G1/8	4.73	5.55	3.33	.98	.89	1.73	.83	1 x 3/4
32 x 32 mm	1.70	5.40	6.30	3.78	G1/8	4.73	5.55	3.33	.98	.89	1.73	.83	1 x 1
40 x 20 mm	1.73	5.00	7.09	3.78	G1/8	4.21	5.55	3.33	.98	.89	1.73	.83	1-1/4 x 1/2
50 x 20 mm	2.22	6.24	7.09	3.78	G1/8	5.26	5.55	3.33	.98	.89	1.73	.83	1-1/2 x 1/2
50 x 25 mm	2.22	6.24	7.09	3.78	G1/8	5.26	5.55	3.33	.98	.89	1.73	.83	1-1/2 x 3/4
50 x 32 mm	2.22	6.24	7.09	3.78	G1/8	5.26	5.55	3.33	.98	.89	1.73	.83	1-1/2 x 1
50 x 40 mm	2.60	7.66	7.87	5.91	G1/4	6.63	7.80	4.23	1.42	1.40	2.52	1.28	1-1/2 x 1-1/4
50 x 50 mm	2.60	7.66	7.87	5.91	G1/4	6.63	7.80	4.23	1.42	1.40	2.52	1.28	1-1/2 x 1-1/2
63 x 20 mm	2.62	6.89	7.09	3.78	G1/8	5.65	5.55	3.33	.98	.89	1.73	.83	2 x 1/2
63 x 25 mm	2.62	6.89	7.09	3.78	G1/8	5.65	5.55	3.33	.98	.89	1.73	.83	2 x 3/4
63 x 32 mm	2.62	6.89	7.09	3.78	G1/8	5.65	5.55	3.33	.98	.89	1.73	.83	2 x 1
63 x 40 mm	3.15	8.84	8.66	5.91	G1/4	7.56	8.50	4.94	1.42	1.40	2.52	1.54	2 x 1-1/4
63 x 50 mm	3.15	8.84	8.66	5.91	G1/4	7.56	8.50	4.94	1.42	1.40	2.52	1.54	2 x 1-1/2
63 x 63 mm	3.15	8.84	8.66	5.91	G1/4	7.56	8.50	4.94	1.42	1.40	2.52	1.54	2 x 2
75 x 40 mm	3.07	8.01	7.48	4.72	G1/8	6.53	6.57	3.82	1.02	1.40	2.52	1.00	2-1/2 x 1-1/4
90 x 20 mm	3.21	8.01	6.30	3.78	G1/8	6.24	5.55	3.33	.98	.89	1.73	.83	3 x 1/2
90 x 25 mm	3.21	8.01	6.30	3.78	G1/8	6.24	5.55	3.33	.98	.89	1.73	.83	3 x 3/4
90 x 32 mm	3.21	8.01	6.30	3.78	G1/8	6.24	5.55	3.33	.98	.89	1.73	.83	3 x 1
90 x 50 mm	3.75	9.93	8.66	5.91	G1/4	8.16	8.50	4.94	1.42	1.40	2.52	1.54	3 x 1-1/2
90 x 63 mm	3.75	9.93	8.66	5.91	G1/4	8.16	8.50	4.94	1.42	1.40	2.52	1.54	3 x 2
110 x 20 mm	3.70	8.90	6.30	3.78	G1/8	6.73	5.55	3.33	.98	.89	1.73	.83	4 x 1/2
110 x 25 mm	3.70	8.90	6.30	3.78	G1/8	6.73	5.55	3.33	.98	.89	1.73	.83	4 x 3/4
110 x 32 mm	3.70	8.90	6.30	3.78	G1/8	6.73	5.55	3.33	.98	.89	1.73	.83	4 x 1
110 x 50 mm	4.25	10.83	8.66	5.91	G1/4	8.66	8.50	4.94	1.42	1.40	2.52	1.54	4 x 1-1/2
110 x 63 mm	4.25	10.83	8.66	5.91	G1/4	8.66	8.50	4.94	1.42	1.40	2.52	1.54	4 x 2

\*H4 = with lift limiter/  
manual override

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					EPDM Part number	PTFE Part number	
1/2	20	15	5.04	72	199 025 751		199 025 771
3/4	25	20	8.40	120	199 025 752		199 025 772
1	32	25	16.67	238	199 025 753		199 025 773
1 1/4	40	32	23.88	341	199 025 754		199 025 774
1 1/2	50	40	32.21	460	199 025 755		199 025 775
2	63	50	47.97	685	199 025 756		199 025 776
Fail safe to open (FO)							
1/2	20	15	5.04	72	199 025 757		199 025 777
3/4	25	20	8.40	120	199 025 758		199 025 778
1	32	25	16.67	238	199 025 759		199 025 779
1 1/4	40	32	23.88	341	199 025 760		199 025 780
1 1/2	50	40	32.21	460	199 025 761		199 025 781
2	63	50	47.97	685	199 025 762		199 025 782
Double acting (DA)							
1/2	20	15	5.04	72	199 025 763		199 025 783
3/4	25	20	8.40	120	199 025 764		199 025 784
1	32	25	16.67	238	199 025 765		199 025 785
1 1/4	40	32	23.88	341	199 025 766		199 025 786
1 1/2	50	40	32.21	460	199 025 767		199 025 787
2	63	50	47.97	685	199 025 768		199 025 788
Fail safe to close (FC)							
1/2	20	15	5.04	72	199 025 791		199 025 811
3/4	25	20	8.40	120	199 025 792		199 025 812
1	32	25	16.67	238	199 025 793		199 025 813
1 1/4	40	32	23.88	341	199 025 794		199 025 814
1 1/2	50	40	32.21	460	199 025 795		199 025 815
2	63	50	47.97	685	199 025 796		199 025 816
2 1/2	75	65	69.4	992	199 025 007		199 025 037
3	90	80	119	1700	199 025 128		199 025 158
4	110	100	189	2700	199 025 009		199 025 039
6	160	150	422	6033	199 025 130		NA
Fail safe to open (FO)							
1/2	20	15	5.04	72	199 025 797		199 025 817
3/4	25	20	8.40	120	199 025 798		199 025 818
1	32	25	16.67	238	199 025 799		199 025 819
1 1/4	40	32	23.88	341	199 025 800		199 025 820
1 1/2	50	40	32.21	460	199 025 801		199 025 821
2	63	50	47.97	685	199 025 802		199 025 822
2 1/2	75	65	69.4	992	199 025 017		199 025 047
3	90	80	119	1700	199 025 138		199 025 168
4	110	100	189	2700	199 025 019		199 025 049
6	160	150	422	6033	199 025 140		199 025 170
Double acting (DA)							
1/2	20	15	5.04	72	199 025 803		199 025 823
3/4	25	20	8.40	120	199 025 804		199 025 824
1	32	25	16.67	238	199 025 805		199 025 825
1 1/4	40	32	23.88	341	199 025 806		199 025 826
1 1/2	50	40	32.21	460	199 025 807		199 025 827
2	63	50	47.97	685	199 025 808		199 025 828
2 1/2	75	65	69.4	992	199 025 027		199 025 057
3	90	80	119	1700	199 025 148		199 025 178
4	110	100	189	2700	199 025 029		199 025 059
6	160	150	422	6033	199 025 150		199 025 180

PVC  
with solvent cement sockets

PVC  
with PVC loose flange rings  
1/2" - 2 1/2"

PVC  
with integrally, molded  
flanges 3" - 6"

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**CPVC**  
with solvent cement spigots

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 481	199 025 511	
3/4	25	20	8.40	120	199 025 482	199 025 512	
1	32	25	16.67	238	199 025 483	199 025 513	
1 1/4	40	32	23.88	341	199 025 484	199 025 514	
1 1/2	50	40	32.21	460	199 025 485	199 025 515	
2	63	50	47.97	685	199 025 486	199 025 516	

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to open (FO)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 491	199 025 521	
3/4	25	20	8.40	120	199 025 492	199 025 522	
1	32	25	16.67	238	199 025 493	199 025 523	
1 1/4	40	32	23.88	341	199 025 494	199 025 524	
1 1/2	50	40	32.21	460	199 025 495	199 025 525	
2	63	50	47.97	685	199 025 496	199 025 526	

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Double acting (IDA)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 501	199 025 531	
3/4	25	20	8.40	120	199 025 502	199 025 532	
1	32	25	16.67	238	199 025 503	199 025 533	
1 1/4	40	32	23.88	341	199 025 504	199 025 534	
1 1/2	50	40	32.21	460	199 025 505	199 025 535	
2	63	50	47.97	685	199 025 506	199 025 536	



**CPVC**  
with loose CPVC  
flange rings

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 831	199 025 851	
3/4	25	20	8.40	120	199 025 832	199 025 852	
1	32	25	16.67	238	199 025 833	199 025 853	
1 1/4	40	32	23.88	341	199 025 834	199 025 854	
1 1/2	50	40	32.21	460	199 025 835	199 025 855	
2	63	50	47.97	685	199 025 836	199 025 856	
2 1/2	75	65	69.40	992	199 025 637	199 025 667	
3	90	80	119.00	1700	199 025 698	199 025 728	
4	110	100	189.00	2700	199 025 639	199 025 669	

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to open (FO)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 837	199 025 857	
3/4	25	20	8.40	120	199 025 838	199 025 858	
1	32	25	16.67	238	199 025 839	199 025 859	
1 1/4	40	32	23.88	341	199 025 840	199 025 860	
1 1/2	50	40	32.21	460	199 025 841	199 025 861	
2	63	50	47.97	685	199 025 842	199 025 862	
2 1/2	75	65	69.40	992	199 025 647	199 025 677	
3	90	80	119.00	1700	199 025 708	199 025 738	
4	110	100	189.00	2700	199 025 649	199 025 679	

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Double acting (IDA)		
					EPDM		PTFE
					Part number		Part number
1/2	20	15	5.04	72	199 025 843	199 025 863	
3/4	25	20	8.40	120	199 025 844	199 025 864	
1	32	25	16.67	238	199 025 845	199 025 865	
1 1/4	40	32	23.88	341	199 025 846	199 025 866	
1 1/2	50	40	32.21	460	199 025 847	199 025 867	
2	63	50	47.97	685	199 025 848	199 025 868	
2 1/2	75	65	69.40	992	199 025 657	199 025 687	
3	90	80	119.00	1700	199 025 718	199 025 748	
4	110	100	189.00	2700	199 025 659	199 025 689	

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



Polypropylene (PP-H)  
with fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 025 201	199 025 231
3/4	25	20	8.40	120	199 025 202	199 025 232
1	32	25	16.67	238	199 025 203	199 025 233
1 1/4	40	32	23.88	341	199 025 204	199 025 234
1 1/2	50	40	32.21	460	199 025 205	199 025 235
2	63	50	47.97	685	199 025 206	199 025 236

Fail safe to open (FO)

1/2	20	15	5.04	72	199 025 211	199 025 241
3/4	25	20	8.40	120	199 025 212	199 025 242
1	32	25	16.67	238	199 025 213	199 025 243
1 1/4	40	32	23.88	341	199 025 214	199 025 244
1 1/2	50	40	32.21	460	199 025 215	199 025 245
2	63	50	47.97	685	199 025 216	199 025 246

Double acting (DA)

1/2	20	15	5.04	72	199 025 221	199 025 251
3/4	25	20	8.40	120	199 025 222	199 025 252
1	32	25	16.67	238	199 025 223	199 025 253
1 1/4	40	32	23.88	341	199 025 224	199 025 254
1 1/2	50	40	32.21	460	199 025 225	199 025 255
2	63	50	47.97	685	199 025 226	199 025 256

Fail safe to close (FC)

1/2	20	15	5.04	72	199 025 881	199 025 901
3/4	25	20	8.40	120	199 025 882	199 025 902
1	32	25	16.67	238	199 025 883	199 025 903
1 1/4	40	32	23.88	341	199 025 884	199 025 904
1 1/2	50	40	32.21	460	199 025 885	199 025 905
2	63	50	47.97	685	199 025 886	199 025 906

Fail safe to open (FO)

1/2	20	15	5.04	72	199 025 887	199 025 907
3/4	25	20	8.40	120	199 025 888	199 025 908
1	32	25	16.67	238	199 025 889	199 025 909
1 1/4	40	32	23.88	341	199 025 890	199 025 910
1 1/2	50	40	32.21	460	199 025 891	199 025 911
2	63	50	47.97	685	199 025 892	199 025 912

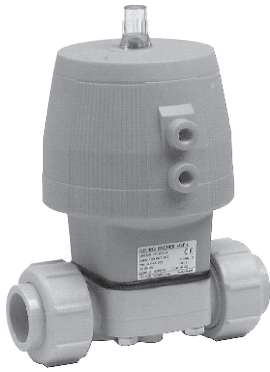
Double acting (DA)

1/2	20	15	5.04	72	199 025 893	199 025 913
3/4	25	20	8.40	120	199 025 894	199 025 914
1	32	25	16.67	238	199 025 895	199 025 915
1 1/4	40	32	23.88	341	199 025 896	199 025 916
1 1/2	50	40	32.21	460	199 025 897	199 025 917
2	63	50	47.97	685	199 025 898	199 025 918



Polypropylene (PP-H)  
with IR/butt fusion spigots  
ISO/DIN

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**Polypropylene (PP-H)**  
Union end with  
fusion sockets  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 201	199 027 231
3/4	25	20	8.40	120	199 027 202	199 027 232
1	32	25	16.67	238	199 027 203	199 027 233
1 1/4	40	32	23.88	341	199 027 204	199 027 234
1 1/2	50	40	32.21	460	199 027 205	199 027 235
2	63	50	47.97	685	199 027 206	199 027 236

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to open (FO)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 211	199 027 241
3/4	25	20	8.40	120	199 027 212	199 027 242
1	32	25	16.67	238	199 027 213	199 027 243
1 1/4	40	32	23.88	341	199 027 214	199 027 244
1 1/2	50	40	32.21	460	199 027 215	199 027 245
2	63	50	47.97	685	199 027 216	199 027 246

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Double acting (DA)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 221	199 027 251
3/4	25	20	8.40	120	199 027 222	199 027 252
1	32	25	16.67	238	199 027 223	199 027 253
1 1/4	40	32	23.88	341	199 027 224	199 027 254
1 1/2	50	40	32.21	460	199 027 225	199 027 255
2	63	50	47.97	685	199 027 226	199 027 256



**Polypropylene (PP-H)**  
Union end  
with IR/butt fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 431	199 027 461
3/4	25	20	8.40	120	199 027 432	199 027 462
1	32	25	16.67	238	199 027 433	199 027 463
1 1/4	40	32	23.88	341	199 027 434	199 027 464
1 1/2	50	40	32.21	460	199 027 435	199 027 465
2	63	50	47.97	685	199 027 436	199 027 466

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to open (FO)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 441	199 027 471
3/4	25	20	8.40	120	199 027 442	199 027 472
1	32	25	16.67	238	199 027 443	199 027 473
1 1/4	40	32	23.88	341	199 027 444	199 027 474
1 1/2	50	40	32.21	460	199 027 445	199 027 475
2	63	50	47.97	685	199 027 446	199 027 476

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Double acting (DA)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 027 451	199 027 481
3/4	25	20	8.40	120	199 027 452	199 027 482
1	32	25	16.67	238	199 027 453	199 027 483
1 1/4	40	32	23.88	341	199 027 454	199 027 484
1 1/2	50	40	32.21	460	199 027 455	199 027 485
2	63	50	47.97	685	199 027 456	199 027 486

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



Polypropylene (PP-H)  
with UP-GF loose flange rings  
ANSI 1/2" - 2 1/2"



Polypropylene (PP-H)  
with integrally, molded  
flanges 3" - 6"

Inch Size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					EPDM Part number	PTFE Part number	
1/2	20	15	5.04	72	<b>199 025 541</b>		<b>199 025 571</b>
3/4	25	20	8.40	120	<b>199 025 542</b>		<b>199 025 572</b>
1	32	25	16.67	238	<b>199 025 543</b>		<b>199 025 573</b>
1 1/4	40	32	23.88	341	<b>199 025 544</b>		<b>199 025 574</b>
1 1/2	50	40	32.21	460	<b>199 025 545</b>		<b>199 025 575</b>
2	63	50	47.97	685	<b>199 025 546</b>		<b>199 025 576</b>
2 1/2	75	65	69.4	992	<b>199 025 207</b>		<b>199 025 237</b>
3	90	80	119	1700	<b>199 025 268</b>		<b>199 025 298</b>
4	110	100	189	2700	<b>199 025 209</b>		<b>199 025 239</b>
6	160	150	422	6033	<b>199 025 270</b>		NA
Fail safe to open (FO)							
1/2	20	15	5.04	72	<b>199 025 551</b>		<b>199 025 581</b>
3/4	25	20	8.40	120	<b>199 025 552</b>		<b>199 025 582</b>
1	32	25	16.67	238	<b>199 025 553</b>		<b>199 025 583</b>
1 1/4	40	32	23.88	341	<b>199 025 554</b>		<b>199 025 584</b>
1 1/2	50	40	32.21	460	<b>199 025 555</b>		<b>199 025 585</b>
2	63	50	47.97	685	<b>199 025 556</b>		<b>199 025 586</b>
2 1/2	75	65	69.4	992	<b>199 025 217</b>		<b>199 025 247</b>
3	90	80	119	1700	<b>199 025 278</b>		<b>199 025 308</b>
4	110	100	189	2700	<b>199 025 219</b>		<b>199 025 249</b>
6	160	150	422	6033	<b>199 025 280</b>		<b>199 025 310</b>
Double acting (DA)							
1/2	20	15	5.04	72	<b>199 025 561</b>		<b>199 025 591</b>
3/4	25	20	8.40	120	<b>199 025 562</b>		<b>199 025 592</b>
1	32	25	16.67	238	<b>199 025 563</b>		<b>199 025 593</b>
1 1/4	40	32	23.88	341	<b>199 025 564</b>		<b>199 025 594</b>
1 1/2	50	40	32.21	460	<b>199 025 565</b>		<b>199 025 595</b>
2	63	50	47.97	685	<b>199 025 566</b>		<b>199 025 596</b>
2 1/2	75	65	69.4	992	<b>199 025 227</b>		<b>199 025 257</b>
3	90	80	119	1700	<b>199 025 288</b>		<b>199 025 318</b>
4	110	100	189	2700	<b>199 025 229</b>		<b>199 025 259</b>
6	160	150	422	6033	<b>199 025 290</b>		<b>199 025 320</b>

# +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



Natural Polypropylene (PP-n)  
with BCF/IR fusion spigots

Fail safe to close (FC)

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	EPDM	PTFE
					Part number	Part number
1/2	20	15	5.04	72	<b>199 027 521</b>	<b>199 027 551</b>
3/4	25	20	8.40	120	<b>199 027 522</b>	<b>199 027 552</b>
1	32	25	16.67	238	<b>199 027 523</b>	<b>199 027 553</b>
1 1/4	40	32	23.88	341	<b>199 027 524</b>	<b>199 027 554</b>
1 1/2	50	40	32.21	460	<b>199 027 525</b>	<b>199 027 555</b>
2	63	50	47.97	685	<b>199 027 526</b>	<b>199 027 556</b>

Fail safe to open (FO)

1/2	20	15	5.04	72	<b>199 027 531</b>	<b>199 027 561</b>
3/4	25	20	8.40	120	<b>199 027 532</b>	<b>199 027 562</b>
1	32	25	16.67	238	<b>199 027 533</b>	<b>199 027 563</b>
1 1/4	40	32	23.88	341	<b>199 027 534</b>	<b>199 027 564</b>
1 1/2	50	40	32.21	460	<b>199 027 535</b>	<b>199 027 565</b>
2	63	50	47.97	685	<b>199 027 536</b>	<b>199 027 566</b>

Double acting (DA)

1/2	20	15	5.04	72	<b>199 027 541</b>	<b>199 027 571</b>
3/4	25	20	8.40	120	<b>199 027 542</b>	<b>199 027 572</b>
1	32	25	16.67	238	<b>199 027 543</b>	<b>199 027 573</b>
1 1/4	40	32	23.88	341	<b>199 027 544</b>	<b>199 027 574</b>
1 1/2	50	40	32.21	460	<b>199 027 545</b>	<b>199 027 575</b>
2	63	50	47.97	685	<b>199 027 546</b>	<b>199 027 576</b>



## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**PVDF**  
with fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		PTFE Part number
1/2	20	15	5.04	72			
3/4	25	20	8.40	120			<b>199 025 321</b>
1	32	25	16.67	238			<b>199 025 322</b>
1 1/4	40	32	23.88	341			<b>199 025 323</b>
1 1/2	50	40	32.21	460			<b>199 025 324</b>
2	63	50	47.97	685			<b>199 025 325</b>
							<b>199 025 326</b>
Fail safe to open (FO)							
1/2	20	15	5.04	72			<b>199 025 331</b>
3/4	25	20	8.40	120			<b>199 025 332</b>
1	32	25	16.67	238			<b>199 025 333</b>
1 1/4	40	32	23.88	341			<b>199 025 334</b>
1 1/2	50	40	32.21	460			<b>199 025 335</b>
2	63	50	47.97	685			<b>199 025 336</b>
Double acting (DA)							
1/2	20	15	5.04	72			<b>199 025 341</b>
3/4	25	20	8.40	120			<b>199 025 342</b>
1	32	25	16.67	238			<b>199 025 343</b>
1 1/4	40	32	23.88	341			<b>199 025 344</b>
1 1/2	50	40	32.21	460			<b>199 025 345</b>
2	63	50	47.97	685			<b>199 025 346</b>



**PVDF**  
with IR/butt fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		PTFE Part number
1/2	20	15	5.04	72			
3/4	25	20	8.40	120			<b>199 027 971</b>
1	32	25	16.67	238			<b>199 027 972</b>
1 1/4	40	32	23.88	341			<b>199 027 973</b>
1 1/2	50	40	32.21	460			<b>199 027 974</b>
2	63	50	47.97	685			<b>199 027 975</b>
							<b>199 027 976</b>
Fail safe to open (FO)							
1/2	20	15	5.04	72			<b>199 027 977</b>
3/4	25	20	8.40	120			<b>199 027 978</b>
1	32	25	16.67	238			<b>199 027 979</b>
1 1/4	40	32	23.88	341			<b>199 027 980</b>
1 1/2	50	40	32.21	460			<b>199 027 981</b>
2	63	50	47.97	685			<b>199 027 982</b>
Double acting (DA)							
1/2	20	15	5.04	72			<b>199 027 983</b>
3/4	25	20	8.40	120			<b>199 027 984</b>
1	32	25	16.67	238			<b>199 027 985</b>
1 1/4	40	32	23.88	341			<b>199 027 986</b>
1 1/2	50	40	32.21	460			<b>199 027 987</b>
2	63	50	47.97	685			<b>199 027 988</b>

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**PVDF**  
Union end with  
fusion sockets  
ISO/DIN

Inch size	OD d mm	ID DN mm			Fail safe to close (FC)		PTFE Part number
			C <sub>v</sub>	k <sub>v</sub>			
1/2	20	15	5.04	72			<b>199 027 321</b>
3/4	25	20	8.40	120			<b>199 027 322</b>
1	32	25	16.67	238			<b>199 027 323</b>
1 1/4	40	32	23.88	341			<b>199 027 324</b>
1 1/2	50	40	32.21	460			<b>199 027 325</b>
2	63	50	47.97	685			<b>199 027 326</b>

### Fail safe to open (FO)

1/2	20	15	5.04	72			<b>199 027 331</b>
3/4	25	20	8.40	120			<b>199 027 332</b>
1	32	25	16.67	238			<b>199 027 333</b>
1 1/4	40	32	23.88	341			<b>199 027 334</b>
1 1/2	50	40	32.21	460			<b>199 027 335</b>
2	63	50	47.97	685			<b>199 027 336</b>

### Double acting (DA)

1/2	20	15	5.04	72			<b>199 027 341</b>
3/4	25	20	8.40	120			<b>199 027 342</b>
1	32	25	16.67	238			<b>199 027 343</b>
1 1/4	40	32	23.88	341			<b>199 027 344</b>
1 1/2	50	40	32.21	460			<b>199 027 345</b>
2	63	50	47.97	685			<b>199 027 346</b>

### Fail safe to close (FC)

1/2	20	15	5.04	72			<b>199 027 491</b>
3/4	25	20	8.40	120			<b>199 027 492</b>
1	32	25	16.67	238			<b>199 027 493</b>
1 1/4	40	32	23.88	341			<b>199 027 494</b>
1 1/2	50	40	32.21	460			<b>199 027 495</b>
2	63	50	47.97	685			<b>199 027 496</b>

### Fail safe to open (FO)

1/2	20	15	5.04	72			<b>199 027 501</b>
3/4	25	20	8.40	120			<b>199 027 502</b>
1	32	25	16.67	238			<b>199 027 503</b>
1 1/4	40	32	23.88	341			<b>199 027 504</b>
1 1/2	50	40	32.21	460			<b>199 027 505</b>
2	63	50	47.97	685			<b>199 027 506</b>

### Double acting (DA)

1/2	20	15	5.04	72			<b>199 027 511</b>
3/4	25	20	8.40	120			<b>199 027 512</b>
1	32	25	16.67	238			<b>199 027 513</b>
1 1/4	40	32	23.88	341			<b>199 027 514</b>
1 1/2	50	40	32.21	460			<b>199 027 515</b>
2	63	50	47.97	685			<b>199 027 516</b>



**PVDF**  
Union end with IR/butt  
fusion spigots

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**PVDF**  
with UP-GF loose flange rings  
ANSI  
1/2" - 2 1/2"



**PVDF**  
with integrally, molded  
flanges 3" - 6"

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FCI)			
							PTFE Part number	
1/2	20	15	5.04	72				<b>199 025 601</b>
3/4	25	20	8.40	120				<b>199 025 602</b>
1	32	25	16.67	238				<b>199 025 603</b>
1 1/4	40	32	23.88	341				<b>199 025 604</b>
1 1/2	50	40	32.21	460				<b>199 025 605</b>
2	63	50	47.97	685				<b>199 025 606</b>
2 1/2	75	65	69.4	992				<b>199 025 327</b>
3	90	80	119	1700				<b>199 025 358</b>
4	110	100	189	2700				<b>199 025 329</b>
6	160	150	422	6033				<b>NA</b>
					Fail safe to open (FO)			
1/2	20	15	5.04	72				<b>199 025 611</b>
3/4	25	20	8.40	120				<b>199 025 612</b>
1	32	25	16.67	238				<b>199 025 613</b>
1 1/4	40	32	23.88	341				<b>199 025 614</b>
1 1/2	50	40	32.21	460				<b>199 025 615</b>
2	63	50	47.97	685				<b>199 025 616</b>
2 1/2	75	65	69.4	992				<b>199 025 337</b>
3	90	80	119	1700				<b>199 025 368</b>
4	110	100	189	2700				<b>199 025 339</b>
6	160	150	422	6033				<b>199 025 370</b>
					Double acting (DA)			
1/2	20	15	5.04	72				<b>199 025 621</b>
3/4	25	20	8.40	120				<b>199 025 622</b>
1	32	25	16.67	238				<b>199 025 623</b>
1 1/4	40	32	23.88	341				<b>199 025 624</b>
1 1/2	50	40	32.21	460				<b>199 025 625</b>
2	63	50	47.97	685				<b>199 025 626</b>
2 1/2	75	65	69.4	992				<b>199 025 347</b>
3	90	80	119	1700				<b>199 025 378</b>
4	110	100	189	2700				<b>199 025 349</b>
6	160	150	422	6033				<b>199 025 380</b>

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**PVDF-HP**  
with IR/butt fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE	Part number	
1/2	20	15	5.04	72			199 025 971
3/4	25	20	8.40	120			199 025 972
1	32	25	16.67	238			199 025 973
1 1/4	40	32	23.88	341			199 025 974
1 1/2	50	40	32.21	460			199 025 975
2	63	50	47.97	685			199 025 976
Fail safe to open (FO)							
1/2	20	15	5.04	72			199 025 977
3/4	25	20	8.40	120			199 025 978
1	32	25	16.67	238			199 025 979
1 1/4	40	32	23.88	341			199 025 980
1 1/2	50	40	32.21	460			199 025 981
2	63	50	47.97	685			199 025 982
Double acting (DA)							
1/2	20	15	5.04	72			199 025 983
3/4	25	20	8.40	120			199 025 984
1	32	25	16.67	238			199 025 985
1 1/4	40	32	23.88	341			199 025 986
1 1/2	50	40	32.21	460			199 025 987
2	63	50	47.97	685			199 025 988



**PVDF-HP**  
with BCF fusion spigots

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE	Part number	
1/2	20	15	5.04	72			199 025 381
3/4	25	20	8.40	120			199 025 382
1	32	25	16.67	238			199 025 383
1 1/4	40	32	23.88	341			199 025 384
1 1/2	50	40	32.21	460			199 025 385
2	63	50	47.97	685			199 025 386
Fail safe to open (FO)							
1/2	20	15	5.04	72			199 025 391
3/4	25	20	8.40	120			199 025 392
1	32	25	16.67	238			199 025 393
1 1/4	40	32	23.88	341			199 025 394
1 1/2	50	40	32.21	460			199 025 395
2	63	50	47.97	685			199 025 396
Double acting (DA)							
1/2	20	15	5.04	72			199 025 401
3/4	25	20	8.40	120			199 025 402
1	32	25	16.67	238			199 025 403
1 1/4	40	32	23.88	341			199 025 404
1 1/2	50	40	32.21	460			199 025 405
2	63	50	47.97	685			199 025 406

## +GF+ DIASTAR Diaphragm Valve Type 025 with Position Indicator



**PVDF-HP**  
Union end with  
BCF fusion spigots

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		PTFE Part number
1/2	20	15	5.04	72			199 027 401
3/4	25	20	8.40	120			199 027 402
1	32	25	16.67	238			199 027 403
1 1/4	40	32	23.88	341			199 027 404
1 1/2	50	40	32.21	460			199 027 405
2	63	50	47.97	685			199 027 406
Fail safe to open (FO)							
1/2	20	15	5.04	72			199 027 411
3/4	25	20	8.40	120			199 027 412
1	32	25	16.67	238			199 027 413
1 1/4	40	32	23.88	341			199 027 414
1 1/2	50	40	32.21	460			199 027 415
2	63	50	47.97	685			199 027 416
Double acting (IDA)							
1/2	20	15	5.04	72			199 027 421
3/4	25	20	8.40	120			199 027 422
1	32	25	16.67	238			199 027 423
1 1/4	40	32	23.88	341			199 027 424
1 1/2	50	40	32.21	460			199 027 425
2	63	50	47.97	685			199 027 426



**PVDF-HP**  
with UP-GF loose flange rings  
ANSI  
1/2" - 2 1/2"

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		PTFE Part number
1/2	20	15	5.04	72			199 027 581
3/4	25	20	8.40	120			199 027 582
1	32	25	16.67	238			199 027 583
1 1/4	40	32	23.88	341			199 027 584
1 1/2	50	40	32.21	460			199 027 585
2	63	50	47.97	685			199 027 586
2 1/2	75	65	69.4	992			199 025 387
3	90	80	119	1700			199 025 448
4	110	100	189	2700			199 025 389
6	160	150	422	6033			N/A
Fail safe to open (FO)							
1/2	20	15	5.04	72			199 027 591
3/4	25	20	8.40	120			199 027 592
1	32	25	16.67	238			199 027 593
1 1/4	40	32	23.88	341			199 027 594
1 1/2	50	40	32.21	460			199 027 595
2	63	50	47.97	685			199 027 596
2 1/2	75	65	69.4	992			199 025 397
3	90	80	119	1700			199 025 458
4	110	100	189	2700			199 025 399
6	160	150	422	6033			199 025 460
Double acting (IDA)							
1/2	20	15	5.04	72			199 027 601
3/4	25	20	8.40	120			199 027 602
1	32	25	16.67	238			199 027 603
1 1/4	40	32	23.88	341			199 027 604
1 1/2	50	40	32.21	460			199 027 605
2	63	50	47.97	685			199 027 606
2 1/2	75	65	69.4	992			199 025 407
3	90	80	119	1700			199 025 468
4	110	100	189	2700			199 025 409
6	160	150	422	6033			199 025 470



with integrally, molded  
flanges 3" - 6"

## +GF+ DIASTAR Diaphragm Valve Type 028 with Position Indicator



PVC with solvent  
cement sockets

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 081	199 028 111
3/4	25	20	8.40	120	199 028 082	199 028 112
1	32	25	16.67	238	199 028 083	199 028 113
1 1/4	40	32	23.88	341	199 028 084	199 028 114
1 1/2	50	40	32.21	460	199 028 085	199 028 115
2	63	50	47.97	685	199 028 086	199 028 116



PVC with loose PVC  
flange rings

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 131	199 028 161
3/4	25	20	8.40	120	199 028 132	199 028 162
1	32	25	16.67	238	199 028 133	199 028 163
1 1/4	40	32	23.88	341	199 028 134	199 028 164
1 1/2	50	40	32.21	460	199 028 135	199 028 165
2	63	50	47.97	685	199 028 136	199 028 166



CPVC with solvent  
cement spigots

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 141	199 028 171
3/4	25	20	8.40	120	199 028 142	199 028 172
1	32	25	16.67	238	199 028 143	199 028 173
1 1/4	40	32	23.88	341	199 028 144	199 028 174
1 1/2	50	40	32.21	460	199 028 145	199 028 175
2	63	50	47.97	685	199 028 146	199 028 176



CPVC with loose CPVC  
flange rings

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 831	199 028 851
3/4	25	20	8.40	120	199 028 832	199 028 852
1	32	25	16.67	238	199 028 833	199 028 853
1 1/4	40	32	23.88	341	199 028 834	199 028 854
1 1/2	50	40	32.21	460	199 028 835	199 028 855
2	63	50	47.97	685	199 028 836	199 028 856

## +GF+ DIASTAR Diaphragm Valve Type 028 with Position Indicator



Polypropylene (PP-H)  
with fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 201	199 028 231
3/4	25	20	8.40	120	199 028 202	199 028 232
1	32	25	16.67	238	199 028 203	199 028 233
1 1/4	40	32	23.88	341	199 028 204	199 028 234
1 1/2	50	40	32.21	460	199 028 205	199 028 235
2	63	50	47.97	685	199 028 206	199 028 236



Polypropylene (PP-H)  
with IR/butt fusion spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 881	199 028 901
3/4	25	20	8.40	120	199 028 882	199 028 902
1	32	25	16.67	238	199 028 883	199 028 903
1 1/4	40	32	23.88	341	199 028 884	199 028 904
1 1/2	50	40	32.21	460	199 028 885	199 028 905
2	63	50	47.97	685	199 028 886	199 028 906



Polypropylene (PP-H)  
Union end with fusion sockets  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 181	199 028 187
3/4	25	20	8.40	120	199 028 182	199 028 188
1	32	25	16.67	238	199 028 183	199 028 189
1 1/4	40	32	23.88	341	199 028 184	199 028 190
1 1/2	50	40	32.21	460	199 028 185	199 028 191
2	63	50	47.97	685	199 028 186	199 028 192



Polypropylene (PP-H)  
Union end with IR/butt fusion  
spigots  
ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 431	199 028 461
3/4	25	20	8.40	120	199 028 432	199 028 462
1	32	25	16.67	238	199 028 433	199 028 463
1 1/4	40	32	23.88	341	199 028 434	199 028 464
1 1/2	50	40	32.21	460	199 028 435	199 028 465
2	63	50	47.97	685	199 028 436	199 028 466

## +GF+ DIASTAR Diaphragm Valve Type 028 with Position Indicator



**Polypropylene (PP-H)  
with UP-GF loose flange  
rings ANSI 1/2" - 2"**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 271	199 028 301
3/4	25	20	8.40	120	199 028 272	199 028 302
1	32	25	16.67	238	199 028 273	199 028 303
1 1/4	40	32	23.88	341	199 028 274	199 028 304
1 1/2	50	40	32.21	460	199 028 275	199 028 305
2	63	50	47.97	685	199 028 276	199 028 306



**Natural Polypropylene (PP-n)  
with BCF/IR fusion spigots**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 521	199 028 551
3/4	25	20	8.40	120	199 028 522	199 028 552
1	32	25	16.67	238	199 028 523	199 028 553
1 1/4	40	32	23.88	341	199 028 524	199 028 554
1 1/2	50	40	32.21	460	199 028 525	199 028 555
2	63	50	47.97	685	199 028 526	199 028 556



**PVDF with fusion spigots  
ISO/DIN**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 321	199 028 321
3/4	25	20	8.40	120	199 028 322	199 028 322
1	32	25	16.67	238	199 028 323	199 028 323
1 1/4	40	32	23.88	341	199 028 324	199 028 324
1 1/2	50	40	32.21	460	199 028 325	199 028 325
2	63	50	47.97	685	199 028 326	199 028 326

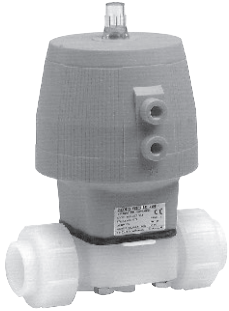


**PVDF with  
IR/butt fusion spigots  
ISO/DIN**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					EPDM Part number	PTFE Part number
1/2	20	15	5.04	72	199 028 961	199 028 961
3/4	25	20	8.40	120	199 028 962	199 028 962
1	32	25	16.67	238	199 028 963	199 028 963
1 1/4	40	32	23.88	341	199 028 964	199 028 964
1 1/2	50	40	32.21	460	199 028 965	199 028 965
2	63	50	47.97	685	199 028 966	199 028 966



## +GF+ DIASTAR Diaphragm Valve Type 028 with Position Indicator



PVDF Union end  
with fusion sockets ISO/DIN

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					PTFE	Part number
1/2	20	15	5.04	72		199 028 193
3/4	25	20	8.40	120		199 028 194
1	32	25	16.67	238		199 028 195
1 1/4	40	32	23.88	341		199 028 196
1 1/2	50	40	32.21	460		199 028 197
2	63	50	47.97	685		199 028 198



PVDF Union end  
with IR/butt fusion spigots

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					PTFE	Part number
1/2	20	15	5.04	72		199 028 491
3/4	25	20	8.40	120		199 028 492
1	32	25	16.67	238		199 028 493
1 1/4	40	32	23.88	341		199 028 494
1 1/2	50	40	32.21	460		199 028 495
2	63	50	47.97	685		199 028 496



PVDF with  
UP-GF loose flange rings

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)	
					PTFE	Part number
1/2	20	15	5.04	72		199 028 361
3/4	25	20	8.40	120		199 028 362
1	32	25	16.67	238		199 028 363
1 1/4	40	32	23.88	341		199 028 364
1 1/2	50	40	32.21	460		199 028 365
2	63	50	47.97	685		199 028 366

## +GF+ DIASTAR Diaphragm Valve Type 028 with Position Indicator



**PVDF-HP with  
BCF fusion spigots**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE		
					Part number		
1/2	20	15	5.04	72	199 028 381		
3/4	25	20	8.40	120	199 028 382		
1	32	25	16.67	238	199 028 383		
1 1/4	40	32	23.88	341	199 028 384		
1 1/2	50	40	32.21	460	199 028 385		
2	63	50	47.97	685	199 028 386		



**PVDF-HP with  
IR/butt fusion spigots  
ISO/DIN**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE		
					Part number		
1/2	20	15	5.04	72	199 028 971		
3/4	25	20	8.40	120	199 028 972		
1	32	25	16.67	238	199 028 973		
1 1/4	40	32	23.88	341	199 028 974		
1 1/2	50	40	32.21	460	199 028 975		
2	63	50	47.97	685	199 028 976		



**PVDF-HP Union end  
with BCF fusion spigots**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE		
					Part number		
1/2	20	15	5.04	72	199 028 401		
3/4	25	20	8.40	120	199 028 402		
1	32	25	16.67	238	199 028 403		
1 1/4	40	32	23.88	341	199 028 404		
1 1/2	50	40	32.21	460	199 028 405		
2	63	50	47.97	685	199 028 406		



**PVDF-HP with  
UP-GF loose flange rings ANSI**

Inch size	OD d mm	ID DN mm	C <sub>v</sub>	k <sub>v</sub>	Fail safe to close (FC)		
					PTFE		
					Part number		
1/2	20	15	5.04	72	199 028 581		
3/4	25	20	8.40	120	199 028 582		
1	32	25	16.67	238	199 028 583		
1 1/4	40	32	23.88	341	199 028 584		
1 1/2	50	40	32.21	460	199 028 585		
2	63	50	47.97	685	199 028 586		

## +GF+ DIASTAR Zero Static Valve

For maximum pressure ratings, see "Technical Data for Actuated Valves Type 025/028" earlier in Section 11



**PVDF-HP Zero Static  
with BCF fusion spigots**

d1-d2		Valve ass'y. size mm	C <sub>v</sub>	k <sub>v</sub>		Fail safe to close (FCI)	
mm size	closest inch size					PTFE	Part number
20x20	1/2 x 1/2	20	3.3	47			<b>199 028 007</b>
25x20	3/4 x 1/2	25	4.8	69			<b>199 028 008</b>
25x25	3/4 x 3/4	25	6.4	91			<b>199 028 009</b>
32x20	1 x 1/2	32	6.0	86			<b>199 028 010</b>
32x25	1 x 3/4	32	8.8	126			<b>199 028 017</b>
32x32	1 x 1	32	10.9	156			<b>199 028 018</b>
40x20	1 1/4 x 1/2	20	5.9	84			<b>199 028 019</b>
40x25	1 1/4 x 3/4	32	8.7	124			<b>199 028 167</b>
40x32	1 1/4 x 1	32	11.3	161			<b>199 028 168</b>
40x40	1 1/4 x 1 1/4	40	17.5	250			<b>199 028 169</b>
50x20	1 1/2 x 1/2	32	5.7	82			<b>199 028 020</b>
50x25	1 1/2 x 3/4	32	8.7	124			<b>199 028 027</b>
50x32	1 1/2 x 1	32	11.1	159			<b>199 028 028</b>
50x40	1 1/2 x 1 1/4	50	21.8	312			<b>199 028 147</b>
50x50	1 1/2 x 1 1/2	50	24.9	356			<b>199 028 148</b>
63x20	2 x 1/2	32	5.7	81			<b>199 028 029</b>
63x25	2 x 3/4	32	8.1	115			<b>199 028 030</b>
63x32	2 x 1	32	10.9	156			<b>199 028 037</b>
63x40	2 x 1 1/4	63	26.8	383			<b>199 028 128</b>
63x50	2 x 1 1/2	63	34.1	487			<b>199 028 127</b>
63x63	2 x 2	63	38.1	544			<b>199 028 129</b>
75x40	2 1/2 x 1 1/4	40	17.9	256			<b>199 028 038</b>
75x50	2 1/2 x 1 1/2	63	34.8	497			<b>199 028 149</b>
75x63	2 1/2 x 2	63	38.2	546			<b>199 028 150</b>
90x20	3 x 1/2	32	6.2	88			<b>199 028 039</b>
90x25	3 x 3/4	32	9.3	133			<b>199 028 040</b>
90x32	3 x 1	63	11.3	162			<b>199 028 047</b>
90x50	3 x 1 1/2	63	35.3	504			<b>199 028 048</b>
90x63	3 x 2	32	37.1	530			<b>199 028 049</b>
110x20	4 x 1/2	32	6.2	89			<b>199 028 050</b>
110x25	4 x 3/4	32	8.6	123			<b>199 028 057</b>
110x32	4 x 1	32	11.1	159			<b>199 028 058</b>
110x50	4 x 1 1/2	63	35.2	503			<b>199 028 059</b>
110x63	4 x 2	63	38.0	543			<b>199 028 060</b>

Double acting (DA)

20x20	1/2 x 1/2	20	3.3	47			<b>199 028 067</b>
25x20	3/4 x 1/2	25	4.8	69			<b>199 028 068</b>
25x25	3/4 x 3/4	25	6.4	91			<b>199 028 069</b>
32x20	1 x 1/2	32	6.0	86			<b>199 028 070</b>
32x25	1 x 3/4	32	8.8	126			<b>199 028 077</b>
32x32	1 x 1	32	10.9	156			<b>199 028 078</b>
40x20	1 1/4 x 1/2	20	5.9	84			<b>199 028 079</b>
40x25	1 1/4 x 3/4	32	8.7	124			<b>199 028 177</b>
40x32	1 1/4 x 1	32	11.3	161			<b>199 028 178</b>
40x40	1 1/4 x 1 1/4	40	17.5	250			<b>199 028 179</b>
50x20	1 1/2 x 1/2	32	5.7	82			<b>199 028 080</b>
50x25	1 1/2 x 3/4	32	8.7	124			<b>199 028 087</b>
50x32	1 1/2 x 1	32	11.1	159			<b>199 028 088</b>
50x40	1 1/2 x 1 1/4	50	21.8	312			<b>199 028 157</b>
50x50	1 1/2 x 1 1/2	50	24.9	356			<b>199 028 158</b>
63x20	2 x 1/2	32	5.7	81			<b>199 028 089</b>
63x25	2 x 3/4	32	8.1	115			<b>199 028 090</b>
63x32	2 x 1	32	10.9	156			<b>199 028 097</b>
63x40	2 x 1 1/4	63	26.8	383			<b>199 028 138</b>
63x50	2 x 1 1/2	63	34.1	487			<b>199 028 137</b>
63x63	2 x 2	63	38.1	544			<b>199 028 139</b>
75x40	2 1/2 x 1 1/4	40	17.9	256			<b>199 028 098</b>
75x50	2 1/2 x 1 1/2	63	34.8	497			<b>199 028 159</b>
75x63	2 1/2 x 2	63	38.2	546			<b>199 028 160</b>
90x20	3 x 1/2	32	6.2	88			<b>199 028 099</b>
90x25	3 x 3/4	32	9.3	133			<b>199 028 100</b>
90x32	3 x 1	32	11.3	162			<b>199 028 107</b>
90x50	3 x 1 1/2	63	35.3	504			<b>199 028 108</b>
90x63	3 x 2	63	37.1	530			<b>199 028 109</b>
110x20	4 x 1/2	32	6.2	89			<b>199 028 110</b>
110x25	4 x 3/4	32	8.6	123			<b>199 028 117</b>
110x32	4 x 1	32	11.1	159			<b>199 028 118</b>
110x50	4 x 1 1/2	63	35.2	503			<b>199 028 119</b>
110x63	4 x 2	63	38.0	543			<b>199 028 120</b>

# The Versatile Accessories Program

**+GF+ DIASTAR with ER 52**



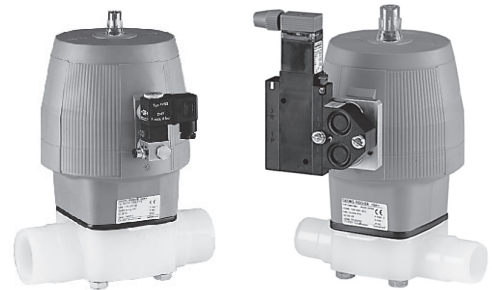
**+GF+ DIASTAR with ER 52 and with adapter set and stroke limiter/ manual override**



**+GF+ DIASTAR with stroke limiter/manual override**



**+GF+ DIASTAR with solenoid pilot valve PV93 and Type 470**



**+GF+ DIASTAR with electronic-pneumatic positioner**



## Accessories for +GF+ DIASTAR sizes 1/2" – 2"

## Electrical Position Indicator ER 52



Type	Type of switch		max. switching capacity	Part number	
ER 52-1	Microswitch	AG, Ni	250 V~ /6 A	<b>199 190 305</b>	
ER 52-2	Microswitch with gold contact	Au	4-30 V= /1-100 mA	<b>199 190 306</b>	
ER 52-3	Inductive switch	NPN	4.75-30 V= /0.1 A	<b>199 190 307</b>	
ER 52-4	Inductive switch	PNP	4.75-30 V= /0.1 A	<b>199 190 308</b>	
ER 52-5	Inductive switch	Namur	8 V=	<b>199 190 309</b>	



## Adapter Set – complete

The complete adapter set must be used if the valve with stroke limiter/manual override is combined with the Electric Position Indicator ER 52.

Inch size	ID DN mm	OD d mm	Type 028 – FC Part number	Type 025 – FC Part number	Type 025 – FO/DA Part number
1/2	15	20	<b>199 190 387</b>	<b>199 190 387</b>	<b>199 190 387</b>
3/4	20	25	<b>199 190 387</b>	<b>199 190 387</b>	<b>199 190 387</b>
1	25	32	<b>199 190 387</b>	<b>199 190 388</b>	<b>199 190 387</b>
1 1/4	32	40	<b>199 190 388</b>	<b>199 190 389</b>	<b>199 190 388</b>
1 1/2	40	50	<b>199 190 389</b>	<b>199 190 389</b>	<b>199 190 389</b>
2	50	63	<b>199 190 389</b>	<b>199 190 389</b>	<b>199 190 389</b>



## Stroke Limiter/Manual Override

Inch size	ID DN mm	OD d mm	Type 028 – FC Part number	Type 025 – FC Part number	Type 025 – FO/DA Part number
1/2	15	20	<b>199 190 381</b>	<b>199 190 382</b>	<b>199 190 381</b>
3/4	20	25	<b>199 190 382</b>	<b>199 190 382</b>	<b>199 190 382</b>
1	25	32	<b>199 190 382</b>	<b>199 190 383</b>	<b>199 190 382</b>
1 1/4	32	40	<b>199 190 383</b>	<b>199 190 384</b>	<b>199 190 383</b>
1 1/2	40	50	<b>199 190 384</b>	<b>199 190 385</b>	<b>199 190 384</b>
2	50	63	<b>199 190 384</b>	<b>199 190 385</b>	<b>199 190 384</b>
2 1/2	65	75	–	<b>199 190 318</b>	<b>199 190 318</b>
3	80	90	–	<b>199 190 318</b>	<b>199 190 318</b>
4	100	110	–	<b>199 190 319</b>	<b>199 190 319</b>
6	150	160	–	<b>199 190 319</b>	<b>199 190 319</b>

## Actuators

Inch size	ID DN mm	OD d mm	Type 028 – FC Part number				Type 025 – FC Part number				Type 025 – EPDM and PTFE Part number			
			EPDM	GR	PTFE	GR	EPDM	GR	PTFE	GR	FO	GR	DA	GR
1/2	15	20	<b>198 150 091</b>	1	<b>198 150 097</b>	1	<b>198 150 087</b>	2	<b>198 150 962</b>	2	<b>198 150 105</b>	1	<b>198 150 100</b>	1
3/4	20	25	<b>198 150 126</b>	2	<b>198 150 126</b>	2	<b>198 150 963</b>	2	<b>198 150 963</b>	2	<b>198 150 969</b>	2	<b>198 150 975</b>	2
1	25	32	<b>198 150 093</b>	2	<b>198 150 098</b>	2	<b>198 150 088</b>	3	<b>198 150 964</b>	3	<b>198 150 106</b>	2	<b>198 150 101</b>	2
1 1/4	32	40	<b>198 150 094</b>	3	<b>198 150 124</b>	3	<b>198 150 965</b>	4	<b>198 150 965</b>	4	<b>198 150 107</b>	3	<b>198 150 102</b>	3
1 1/2	40	50	<b>198 150 095</b>	4	<b>198 150 099</b>	4	<b>198 150 089</b>	5	<b>198 150 966</b>	5	<b>198 150 108</b>	4	<b>198 150 103</b>	4
2	50	63	<b>198 150 125</b>	4	<b>198 150 125</b>	4	<b>198 150 090</b>	5	<b>198 150 967</b>	5	<b>198 150 109</b>	4	<b>198 150 104</b>	4
2 1/2	65	75	–	–	–	–	<b>198 150 736</b>	–	<b>198 150 736</b>	–	<b>198 150 746</b>	–	<b>198 150 756</b>	–
3	80	90	–	–	–	–	<b>198 150 737</b>	–	<b>198 150 737</b>	–	<b>198 150 747</b>	–	<b>198 150 757</b>	–
4	100	110	–	–	–	–	<b>198 150 738</b>	–	<b>198 150 738</b>	–	<b>198 150 748</b>	–	<b>198 150 758</b>	–
6	150	160	–	–	–	–	<b>198 150 739</b>	–	<b>198 150 739</b>	–	<b>198 150 749</b>	–	<b>198 150 759</b>	–

## Actuator Size

GR	Dia. mm	Dia. inch
1	68	2.68
2	96	3.78
3	120	4.72
4	150	5.91
5	180	7.09

## Spare parts for 025/028 +GF+ DIASTAR pneumatically actuated diaphragm valves

	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"
compressor set EPDM	Order as components (below)						198000268	198000270	198000272	198000274
compressor set PTFE	Order as components (below)						198000269	198000271	198000273	198000275
compressor EPDM	198203771	198203773	167481791	167480149	167481792	167481793				
diaph. holder EPDM	198806625	198806625	198806627	198806627	198806629	198806629				
compressor PTFE	198203772	198203774	160480108	160480003	160480109	160480110				
diaph. holder PTFE	198806626	198806626	198806628	198806628	198806630	198806630				
EPDM diaph.	161481022	161481023	161481024	161481025	161481026	161481027	161481028	161481029	161481030	161482754
PTFE diaph.	161311698	161311699	161311700	161311701	161311702	161311703	161480240	161480241	161480242	161482760
seal set 028 FC, 025 FO/DA	198000332 (EP) 198000333 (PTFE)	198000333	198000333	198000334	198000335	198000335		(see below)		
seal set 025 FC	198000333	198000333	198000334	198000335	198000336	198000336		(see below)		
ind. cap 028 FC, 025 FO/DA	198806639	198806639	198806639	198806640	198806640	198806640	198806376	198806376	198806376	198806376
ind. cap 025 FC	198806639	198806639	198806640	198806640	198806640	198806640	198806376	198806376	198806376	198806376
indicator cap for man. ov.	198203791	198203791	198203792	198203792	198203792	198203792	198806398	198806398	198806398	198806398
control diaph. and seal set	—	—	—	—	—	—	198000266	198000266	198000267	198000267
bolts (4)	198802159	161483990	198802632	161483992	198802197	198802198				
washers (4)	161481507	161481507	161481508	161481508	161481509	161481510				

### Electronic-pneumatic positioner Type 986, 4-20 mA



Inch size	ID DN mm	OD d mm	Type 028 FC / 025 FO Part number	Type 025 FC Part number	Type 025 DA Part number
1/2	15	20	N/A (EPDM)	150 986 022	N/A (EPDM)
1/2	15	20	150 986 022 (PTFE)	150 986 022	150 986 021 (PTFE)
3/4	20	25	150 986 022	150 986 022	150 986 021
1	25	32	150 986 022	150 986 032	150 986 021
1 1/4	32	40	150 986 032	150 986 032	150 986 031
1 1/2	40	50	150 986 032	150 986 032	150 986 031
2	50	63	150 986 032	150 986 032	150 986 031
2 1/2-6			150 986 002	150 986 002	150 986 001

### Pneumatic positioner Type 981, 3-15 psi



Inch size	ID DN mm	OD d mm	Type 028 FC / 025 FO Part number	Type 025 FC Part number	Type 025 DA Part number
1/2	15	20	N/A (EPDM)	150 981 022	N/A (EPDM)
1/2	15	20	150 981 022 (PTFE)	150 981 022	150 981 021 (PTFE)
3/4	20	25	150 981 022	150 981 022	150 981 021
1	25	32	150 981 022	150 981 032	150 981 021
1 1/4	32	40	150 981 032	150 981 032	150 981 031
1 1/2	40	50	150 981 032	150 981 032	150 981 031
2	50	63	150 981 032	150 981 032	150 981 031
2 1/2-6			150 981 002	150 981 002	150 981 001

### Electronic-pneumatic positioner Type 983, 4-20 mA explosion proof



Inch size	ID DN mm	OD d mm	Type 028 FC / 025 FO Part number	Type 025 FC Part number	Type 025 DA Part number
1/2	15	20	N/A (EPDM)	150 983 022	N/A (EPDM)
1/2	15	20	150 983 022 (PTFE)	150 983 022	150 983 021 (PTFE)
3/4	20	25	150 983 022	150 983 022	150 983 021
1	25	32	150 983 022	150 983 032	150 983 021
1 1/4	32	40	150 983 032	150 983 032	150 983 031
1 1/2	40	50	150 983 032	150 983 032	150 983 031
2	50	63	150 983 032	150 983 032	150 983 031
2 1/2-6*			150 983 002*	150 983 002*	150 983 001*

Positioner requires an aluminum adapter when used on an actuator with stroke limiter/manual override.

\* Explosion proof

## Type PV 93 Solenoid Pilot Valve

3/2-way solenoid valve to control single acting pneumatic actuators. It is mounted either with a base plate and hollow screw directly on the actuator or on a multiple manifold.

Materials: Valve polyamide/brass, seals NBR.

Mode of operation: de-energized closed. Electrical connection: cable plug



<b>Direct mounting version</b>	230 VAC, 50–60 Hz	<b>199 190 263</b>	1/8" BSP supply air connection
	115 VAC, 50–60 Hz	<b>199 190 300</b>	1/8" NPT supply air connection
	24 VDC	<b>199 190 265</b>	1/8" BSP supply air connection
	24 VAC, 50–60 Hz	<b>199 190 266</b>	1/8" BSP supply air connection
<b>Multiple manifold version</b> coil with flange adapter	230 VAC, 50–60 Hz	<b>199 190 267</b>	
	115 VAC, 50–60 Hz	<b>199 190 268</b>	
	24 VDC	<b>199 190 269</b>	
	24 VAC, 50–60 Hz	<b>199 190 270</b>	
<b>Multiple manifold</b>	for 4 valves	<b>199 190 271</b>	
	for 6 valves	<b>199 190 272</b>	
	for 8 valves	<b>199 190 273</b>	
<b>Blank cover plate</b>		<b>199 190 274</b>	
<b>Cable plug with LED and VDR</b>	230 V, AC/DC	<b>198 806 122</b>	
	115 V, AC/DC	<b>198 806 121</b>	
	24 V, AC/DC	<b>198 806 123</b>	

## Type 470 Pilot Valve

4/2-way solenoid valve to control double acting pneumatic actuators. It is mounted with a Namur connection. For sizes 1/2" - 2" a Namur connection plate must be mounted between the actuator and the pilot valve.

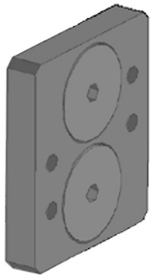
Materials: Valve body polyamide/brass, seals NBR.

Electrical connection: cable plug



<b>Version with Namur connection</b>	230 V, AC/DC	<b>199 190 302</b>	
	115 V, AC/DC	<b>199 190 303</b>	
	24 V, AC/DC	<b>199 190 304</b>	

## NAMUR Connection Plate for 470 Pilot Valve (not needed for 2 1/2" – 6" valves)



Inch size	ID DN mm	OD d mm	Type 028 – FC Part number	Type 025 – FC Part number	Type 025 – FO/DA Part number
1/2	15	20	<b>199 190 378</b>	<b>199 190 378</b>	<b>199 190 378</b>
3/4	20	25	<b>199 190 378</b>	<b>199 190 378</b>	<b>199 190 378</b>
1	25	32	<b>199 190 378</b>	<b>199 190 378</b>	<b>199 190 378</b>
1 1/4	32	40	<b>199 190 378</b>	<b>199 190 379</b>	<b>199 190 378</b>
1 1/2	40	50	<b>199 190 379</b>	<b>199 190 379</b>	<b>199 190 379</b>
2	50	63	<b>199 190 379</b>	<b>199 190 379</b>	<b>199 190 379</b>

## Accessories for +GF+ DIASTAR sizes 2 1/2" – 6"

### Stroke Limiter/Emergency Manual Override

2-1/2" – 3"	Min./max. stroke limiter/emergency manual override	<b>199 190 318</b>
4" – 6"	Max. stroke limiter	<b>199 190 319</b>

### Electrical Feedback Unit Type ER53 (adapter 199.190.310 required with stroke limiter)

Type	Type of switch		max. switching capacity	Part number
ER53-1	Microswitch	AG, Ni	250 VAC/10 A	<b>199 190 293</b>
ER53-2	Microswitch with gold-plated contact	Au	4–30 VDC/1–100 mA	<b>199 190 297</b>
ER53-3	Inductive switch with LED	NPN	9.6–55 VDC/0.2 A	<b>199 190 294</b>
ER53-4	Inductive switch with LED	PNP	9.6–55 VDC/0.2 A	<b>199 190 295</b>
ER53-5	Inductive switch	Namur	8 VDC	<b>199 190 296</b>
ER53-6	Microswitch	EExd	250 VAC/5 A	<b>199 190 298</b>
ER53-7	Analog signal transmitter		15–30 VDC 4–20 mA	<b>199 190 299</b>

