Rotary distributors GF

FESTO

Rotary distributors GF

Product range overview and type codes

FESTO

General

The rotary distributors GF with single or multiple rotary through-feed transmit media from stationary sources to rotating machine parts.

The compact and sturdy design with double bearing makes the rotary distributors a reliable means of protecting your media supply against mechanical loads.

In the case of the rotary distributors with multiple rotary through-feed, the medium can be flexibly supplied and returned through the radial and axial inlets and outlets.

Product range overview

Design	Version	Type	Pneumatic connection		Max. rotational speed	➔ Page/ Internet
			Inlet	Outlet	[rpm]	
Single rotary through-feed	**1 inlet, 4 outlets**					
		**GF**	G⅛	M5	3,000	3
			G¼	G⅛		
			G½	G¼	2,500	
Multiple rotary through-feed	**2 separate inlets and outlets**					
		**GF**	G⅛	G⅛	300	5
			G¼	G¼		
			G½	G½		

Type codes

Single rotary through-feed

GF	–	1/8	–	M5

Basic function	
GF	Single rotary distributor

Pneumatic connection, inlet	
1/8	G⅛ thread
1/4	G¼ thread
1/2	G½ thread

Pneumatic connection, outlet	
M5	M5 thread
1/8	G⅛ thread
1/4	G¼ thread

Multiple rotary through-feed

GF	–	1/8	–	2

Basic function	
GF	Multiple rotary distributor

Pneumatic connection	
1/8	G⅛ thread
1/4	G¼ thread
1/2	G½ thread

Number of air through-feeds	
2	Air through-feeds

Rotary distributors GF

Technical data – Single rotary through-feed

Single rotary through-feed
1 inlet, 4 outlets

Temperature range
–10 … +80 °C

Pressure
–0.95 … +10 bar

General technical data				
Pneumatic connection 1		G⅛	G¼	G½
Pneumatic connection 2		M5	G⅛	G¼
Nominal size	[mm]	4.1	8	15
Mounting position		Any		
Max. rotational speed	[rpm]	3000	3000	2500
Max. radial force	[N]	150	150	250
Max. axial force	[N]	50	50	50
Nominal tightening torque for the threaded lugs	[Nm]	1.22 ±20%	1.65 ±20%	4.25 ±20%

Note

When using speeds above 1000 rpm, only lubricated compressed air should be used.
If no lubricated compressed air is available, the depot lubrication system must be replaced every 300 operating hours.

Operating and environmental conditions		
Operating pressure for entire temperature range	[bar]	–0.95 … +10
Operating medium		Compressed air according to ISO 8573-1:2010 [7:–:–]
		Liquids on request
Note on operating/pilot medium		Lubricated operation possible
Ambient temperature	[°C]	–10 … +80
Corrosion resistance class CRC[1)]		1

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Note

Technical advice is required for applications below 0 °C or when more than one parameter occurs in the threshold range.
Please contact our Technical Department.

Note

The maximum temperature of +80 °C must not be exceeded.
The frictional heat resulting from the rotation must be dissipated via the medium; sufficient media flow must therefore be ensured.

Note

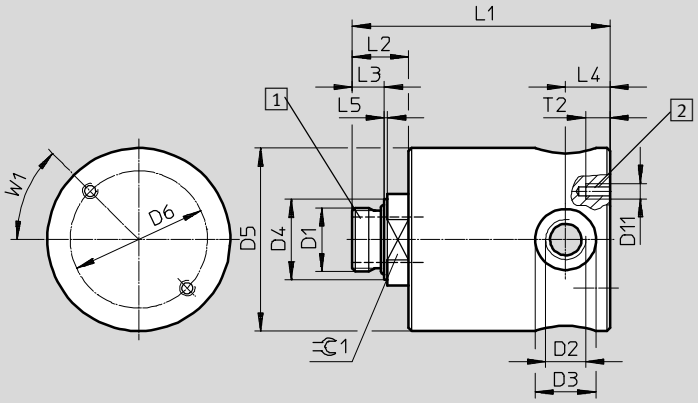
In the event of rapid oscillating movements (changes in direction < 2 seconds), the service life will be roughly halved.

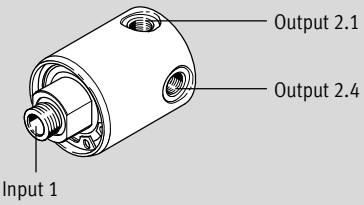
Materials	
Housing	Nickel-plated brass
Shaft	High-alloy steel

Rotary distributors GF

Technical data – Single rotary through-feed

Dimensions Download CAD data ➔ **www.festo.com**





Note

The rotary distributor should only be secured against twisting at the shaft [1] and housing [2] mounting points. The shaft and housing should not be tensioned against one other because this would overload the double ball bearing.

Type	Connection		D3 ∅	D4 ∅	D5 ∅ −1	D6 ∅	D11	L1	L2	L3	L4	L5	T2	W1	1
	D1	D2													
GF-1/8-M5	G⅛	M5	9	14.5	40	30	M5	64	15.5	6.5	7	1	8	45°	17
GF-1/4-1/8	G¼	G⅛	16	17	40	30	M5	65.5	17	8	9.5	1.5	8	45°	17
GF-1/2-1/4	G½	G¼	20	26.5	60	45	M5	90	24	10.5	14.5	1.5	8	45°	27

Ordering data

Pneumatic connection		Standard flow rate qn at 6 bar ⇢ 0 bar		Weight	Part No.	Type
		1 ⇢ 2.1	1 ⇢ 2.1 to 2.4 open			
1	2	[l/min]	[l/min]	[g]		
G⅛	M5	490	2250	400	**539290**	**GF-1/8-M5**
G¼	G⅛	1730	4050	370	**539291**	**GF-1/4-1/8**
G½	G¼	4050	14130	1190	**539292**	**GF-1/2-1/4**

Rotary distributors GF

Technical data – Multiple rotary through-feed

Multiple rotary through-feed
2 separate inlets and outlets

Temperature range
–10 … +80 °C

Pressure
–0.95 … +10 bar

General technical data				
Pneumatic connection 1		G⅛	G¼	G½
Pneumatic connection 2		G⅛	G¼	G½
Nominal size	[mm]	6	8	15
Mounting position		Any		
Max. rotational speed	[rpm]	300		
Max. radial force	[N]	250	300	400
Max. axial force	[N]	100	100	100
Nominal tightening torque for the threaded lugs	[Nm]	1.22 ±20%	1.65 ±20%	4.25 ±20%

Operating and environmental conditions		
Operating pressure for entire temperature range	[bar]	–0.95 … +10
Operating medium		Compressed air according to ISO 8573-1:2010 [7:–:–]
		Liquids on request
Note on operating/pilot medium		Lubricated operation possible
Ambient temperature	[°C]	–10 … +80
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Shaft	High-alloy steel

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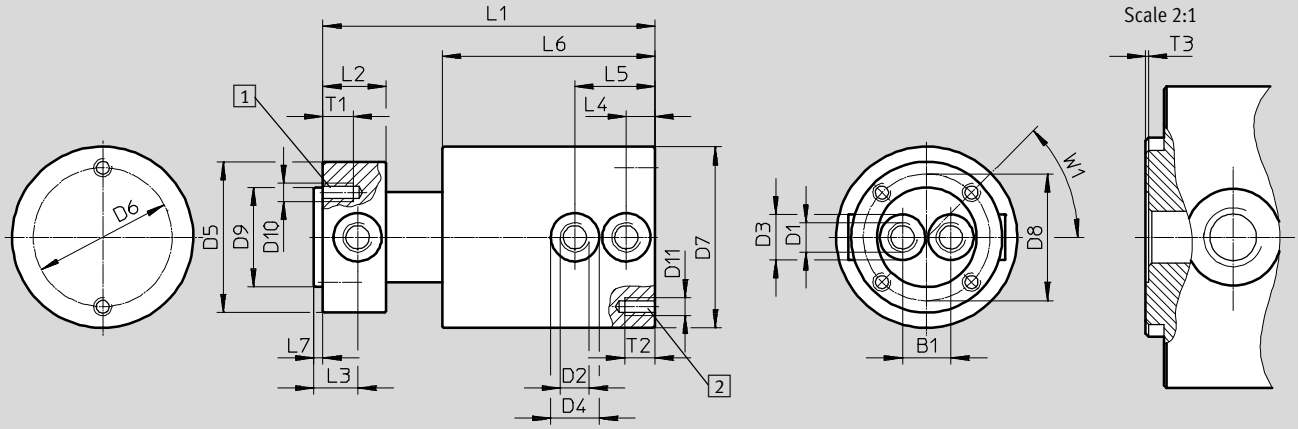
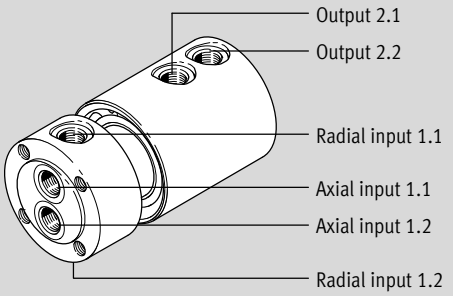
Technical data – Multiple rotary through-feed

Dimensions Download CAD data ➔ **www.festo.com**





Note

The rotary distributor should only be secured against twisting at the shaft 1 and housing 2 mounting points. The shaft and housing should not be tensioned against one other because this would overload the double ball bearing.

Type	Connection		B1	D3 ∅	D4 ∅	D5 ∅	D6 ∅	D7 ∅ –1	D8 ∅	D9 ∅ f7	D10	D11
	D1	D2										
GF-1/8-2	G⅛	G⅛	16	15	16	50	46	60	42	33	M6	M6
GF-1/4-2	G¼	G¼	20	19	20	65	46	70	50	40	M6	M6
GF-1/2-2	G½	G½	30	28	28	90	65	95	78	65	M6	M6

Type	Connection		L1	L2	L3	L4	L5	L6	L7	T1	T2	T3 –0.2	W1
	D1	D2											
GF-1/8-2	G⅛	G⅛	110	21	14.5	9.5	26.5	70.5	3	10	10	0.5	45°
GF-1/4-2	G¼	G¼	128	28	19.5	13.5	34.5	81.5	3	10	10	0.5	45°
GF-1/2-2	G½	G½	171	39	25.5	17.5	49.5	112	3	10	10	0.5	45°

Ordering data

Pneumatic connection		Standard nominal flow rate qnN at 6 bar ⇢ 5 bar		Weight	Part No.	Type
		1.1 ⇢ 2.1	1.2 ⇢ 2.2			
1	2	[l/min]	[l/min]	[g]		
G⅛	G⅛	720	1050	1770	**539287**	**GF-1/8-2**
G¼	G¼	1250	2020	2950	**539288**	**GF-1/4-2**
G½	G½	4440	7380	7380	**539289**	**GF-1/2-2**