

## Rotary indexing tables DHTG

**FESTO**

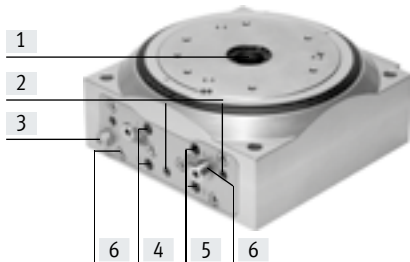


## Characteristics

### At a glance

- Sturdy mechanical system
- Easy project engineering and commissioning
- Indexing stations: 2, 3, 4, 6, 8, 12, 24
- Integrated functions:
  - Overload protection
  - Sensing
  - Cushioning adjustment
  - Speed setting
  - Changing the direction of rotation

### The technology in detail



- [1] Through-hole for energy through-feed
- [2] Thread for position sensing
- [3] One-way flow control valve for regulating speed
- [4] Compressed air supply port for reciprocating motion
- [5] Compressed air supply port for clockwise or anticlockwise rotation
- [6] Adjusting screw for cushioning adjustment

### Operating modes

#### Clockwise

#### Anticlockwise

#### Reciprocating motion

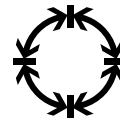
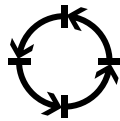
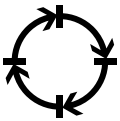
#### Flexible control: Clockwise, anticlockwise, reciprocating motion

- Just one valve required

- Just one valve required

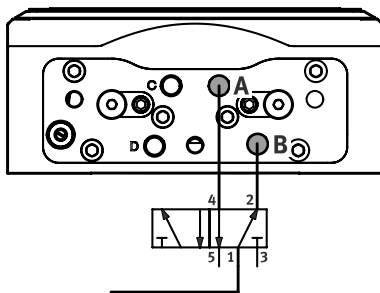
- After conversion with a reciprocating motion kit
- Two valves required

- After conversion with a reciprocating motion kit
- Two valves required

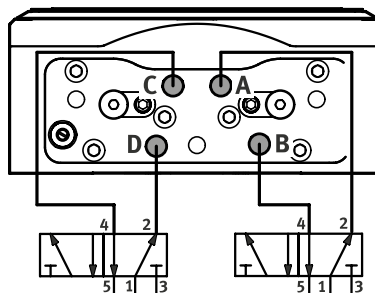


### Examples of easy connections

#### Clockwise/anticlockwise



#### Reciprocating motion/flexible control



## Characteristics

### The technology in detail

#### Overload protection

To prevent the rotary indexing table from being damaged by an excessive mass moment of inertia, e.g. during setting operation or in the event of shock absorber failure, sizes 140 and 220 feature overload protection.

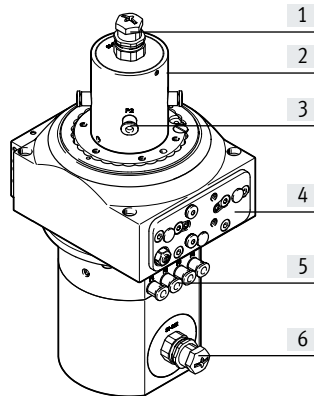
If the mass moment of inertia is too large, the securing pin is pressed against the spring force by the resulting radial force. It then slides forward on the toothed segment.

This shift in position between the index plate and toothed segment means that the securing pin can no longer engage and the rotary indexing table does not move. The table can be made ready for use again by turning it back.

#### Energy through-feed

The energy through-feed can be used to transfer electrical signals or compressed air through the hollow shaft. This enables the fast and easy supply of the parts mounted on the rotating plate.

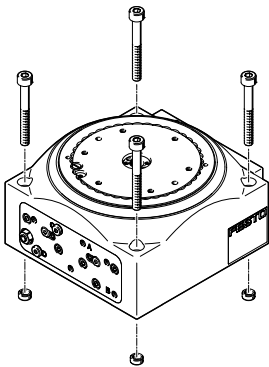
Also suitable for IO-Link signal data transfer.



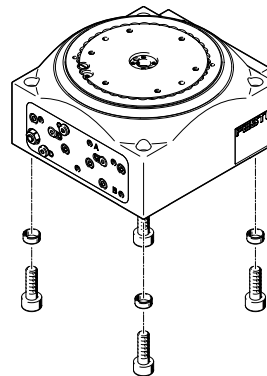
- [1] Electrical connection (output)
- [2] Energy through-feed housing
- [3] Compressed air supply port (output)
- [4] Rotary indexing table
- [5] Compressed air supply port (input)
- [6] Electrical connection (input)


### Mounting options

#### Direct mounting from above



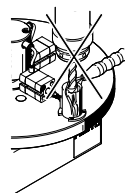
#### Direct mounting from below



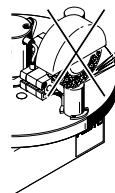
 Note

The rotary indexing tables are not designed for the following or similar application examples.

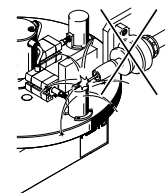
- Machining
- Aggressive media



- Grinding dust



- Welding spatter



## Characteristics

### Application example

Rotating plate with stationary centre section

For mounting handling units or other devices in the centre of the rotary indexing table



## Type codes

001	Series
DHTG	Rotary indexing table

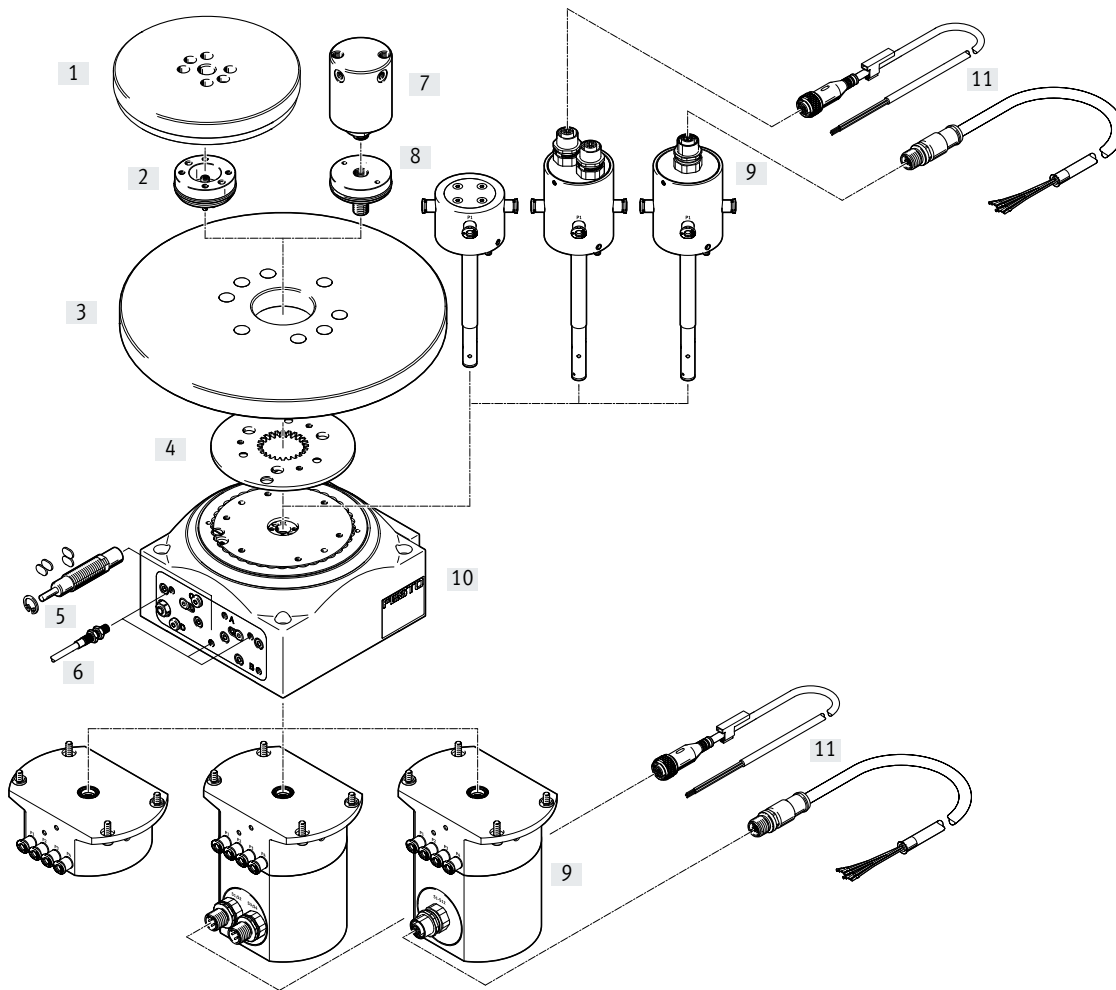
002	Size
65	65
90	90
140	140
220	220

003	Indexing
2	2 indexing stations
3	3 indexing stations
4	4 indexing stations
6	6 indexing stations
8	8 indexing stations
12	12 indexing stations
24	24 indexing stations

004	Position sensing
A	For proximity sensor

005	Energy through-feed
	None
P4	Pneumatic, 4 ducts
P4L12	Pneumatic, 4 ducts and electric, 12 cables
P4E4	Pneumatic, 4 ducts and electric, 4signals

Peripherals overview



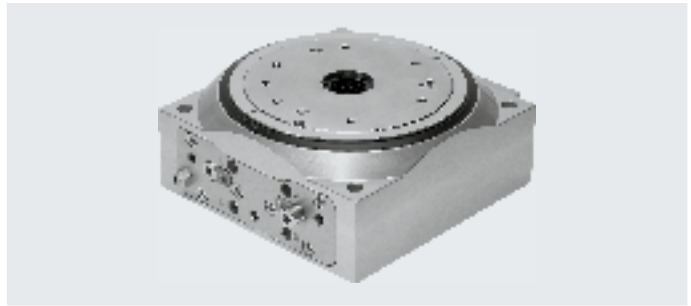
## Peripherals overview

Variants and accessories			
Type	Description		→ Page/Internet
[1] Plate, fixed	For illustration purposes only, not included in the scope of delivery		8
[2] Adapter kit DADG-AK	For mounting a blank plate on the rotary indexing table		8
[3] Plate, rotary	For illustration purposes only, not included in the scope of delivery		8
[4] Indexing conversion kit DADM-CK	The step angle can be adjusted at any time using the kit		30
[5] Reciprocating motion kit DADM-TK	Allows conversion from movement in one direction to reciprocating motion		30
[6] Proximity switch SIEN	For sensing the switching position of the rotary indexing table		30
[7] Rotary distributor GF	Distributes the compressed air fed through the centre of the rotary indexing table to the actuators on the rotating blank plate. Cannot be used in combination with a fixed blank plate		29
[8] Adapter kit DADG-AK-...-...G...	For mounting the rotary distributor on the rotary indexing table		29
[9] Energy through-feed pneumatic/electrical	For quick and easy pneumatic/electrical supply of parts mounted on the rotating plate		12
[10] Rotary indexing table DHTG	Flexible application range: anticlockwise rotation, clockwise rotation or reciprocating motion		8
[11] Connecting cables NEBU, NEBS, NEDY	For transmitting the signals		1

## Data sheet

⊗ Size  
 65, 90, 140, 220

Indexing  
 2, 3, 4, 6, 8, 12, 24



General technical data					
Size	65	90	140	220	
Pneumatic connection	M5		G1/8		
Design	Gear coupling				
	Gear rack/pinion				
	Force pilot operated motion sequence				
Mode of operation	Double-acting				
Type of mounting	Via through-hole and centring sleeve				
Mounting position	Any				
Cushioning	Adjustable shock absorber stroke, hard characteristic curve				
Indexing	2, 3, 4, 6, 8, 12, 24		3, 4, 6, 8, 12, 24		
Theoretical torque at 6 bar	[Nm]	2.1	4.4	18.1	58.9
Parallelism of plate <sup>1)</sup>	[mm]	≤ 0.04			
Axial eccentricity of plate <sup>2)</sup>	[mm]	≤ 0.02			
Concentricity of plate <sup>3)</sup>	[mm]	≤ 0.02			
Repetition accuracy of swivel angle	[°]	≤ 0.03			
Max. mass moment of inertia without flow control <sup>4)</sup>	[kgm <sup>2</sup> ]	0.016	0.03	0.3	2.5
Cycle time without flow control		→ Page 10			
Position sensing		For inductive proximity switches			
Weight					
DHTG-...	[kg]	2.0	4.5	10	24
DHTG-...-P4	[kg]	4.39	6.89	12.49	26.64
DHTG-...-P4E4	[kg]	5.12	7.62	13.22	27.37
DHTG-...-P4L12	[kg]	5.15	7.65	13.25	27.40

1) Parallelism of the plate surface relative to the housing support

2) Measured on the surface and at the edge of the plate in relation to the housing support

3) Measured on the inner diameter of the plate in relation to the housing

4) Operation with flow control can increase the mass moment of inertia by 50%. The service life of the shock absorber is reduced in this case. The mass moment of inertia depends on the number of indexing stations and the switching frequency (→ page 11)

⊗ **Note**

The "clockwise" rotation of the plate can be controlled via an internal flow control valve in combination with the reciprocating motion kit. For "anticlockwise" rotation, external actuation via an additional one-way flow control valve GRLA is needed.



## Data sheet

Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Operating pressure [bar]	4 ... 8
Ambient temperature [°C]	5 ... 60
Storage temperature [°C]	-20 ... +80
Degree of protection	IP54 <sup>2)</sup>
Corrosion resistance CRC <sup>1)</sup>	2

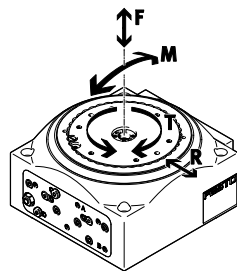
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) The specified degree of protection applies to the top side of the rotary indexing table. The underside must be provided with appropriate external protection for the environment.

### Static characteristic load values

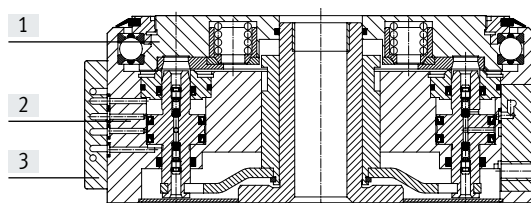
The indicated forces and torques refer to the locked table and can also act on the table plate.



Size		65	90	140	220
<b>Forces</b>					
Max. axial force F	[N]	1000	2000	4000	5000
Max. radial force R	[N]	2000	5000	6000	8000
<b>Torques</b>					
Max. tilting torque M	[Nm]	100	150	300	500
Max. tangential torque T	[Nm]	100	150	200	500

### Materials

Sectional view



Rotary indexing table	
[1] Plate	Galvanised steel
[2] Cover	Wrought aluminium alloy
[3] Housing	Wrought aluminium alloy
- Stops	Galvanised steel
- Seals	NBR, TPE-U (PU)
Note on materials	
DHTG-...	Free of copper and PTFE
DHTG-...-P4...	Cables with PTFE insulation
	Contains paint-wetting impairment substances

## Data sheet

### Calculating the cycle time

The rotary indexing tables are equipped with a hydraulic shock absorber, which means that the max. frequency of the shock absorber must also be taken into account when calculating the cycle time.

The switching time comprises:

Switching time = Unlock, rotate, lock and return stroke of working piston.

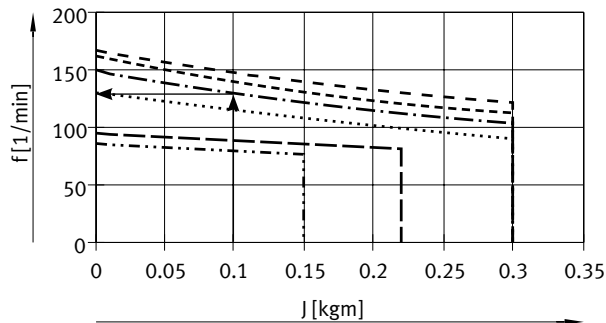
The cycle time is calculated as follows:

Cycle time = Switching time + Processing time + Dwell time.

### Calculation example

DHTG-140 with 8 indexing stations      The customer application requires  
and a mass moment of inertia of      300 ms per step for inserting and  
0.1 kgm<sup>2</sup>.      removing parts.

### Switching frequency



$$T_{\text{switching time}} = 1/f = 60 \text{ s}/130 = 0.461 \text{ s} = 461 \text{ ms}$$

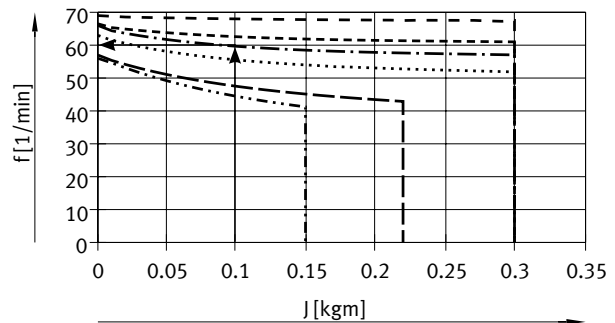
Dwell time = Min. permissible cycle time - Switching time - Processing time

$$\text{Dwell time} = 1017 \text{ ms} - 461 \text{ ms} - 300 \text{ ms} = 256 \text{ ms.}$$

Given the fact that the switching time + processing time is shorter than the min. permissible cycle time, the rotary indexing table must stay in the end position before the next step is performed. In other words, between the switching operations an additional dwell time of 256 ms must be allowed for in the control sequence.

The max. achievable switching frequency in relation to the mass moment of inertia can be read off from the switching frequency graph. The switching time can be calculated from this based on  $T = 60/f$ . The processing time is calculated based on the time required for the respective customer application (e.g. time for component removal, press-in time, etc.). A dwell time may be necessary if the cycle time is shorter than the min. possible cycle time.

### Max. permissible cycle frequency

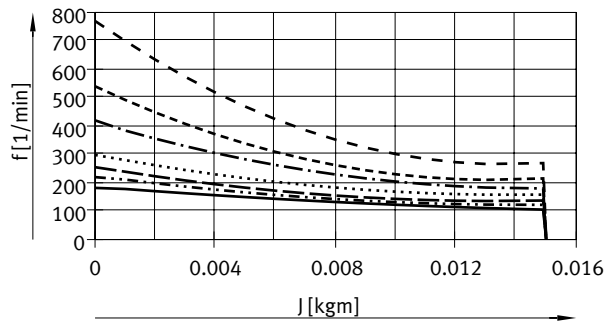


$$T_{\text{min. permissible cycle time}} = 60 \text{ s}/59 = 1.017 \text{ s} = 1017 \text{ ms}$$

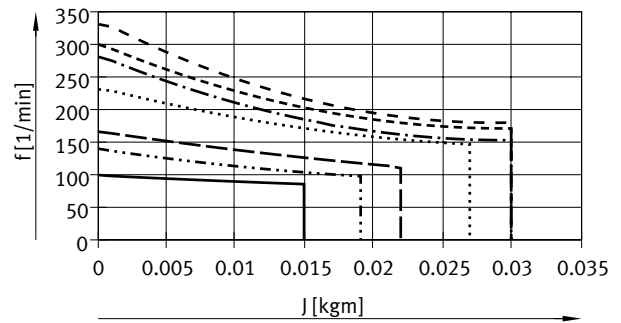
Data sheet

Mass moment of inertia  $J$  as a function of switching frequency  $f$  and number of indexing stations

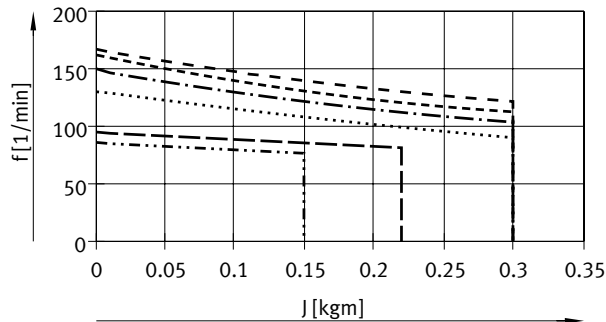
Size 65



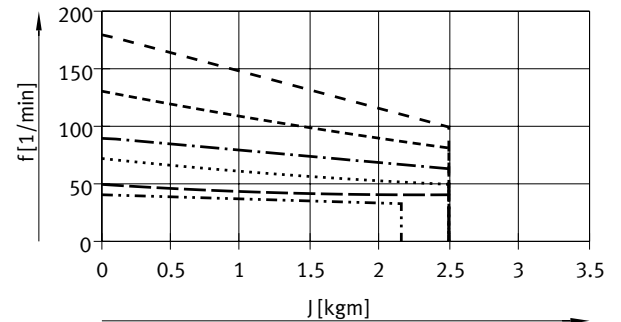
Size 90



Size 140

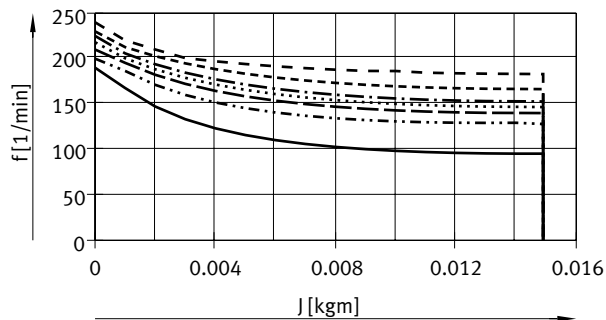


Size 220

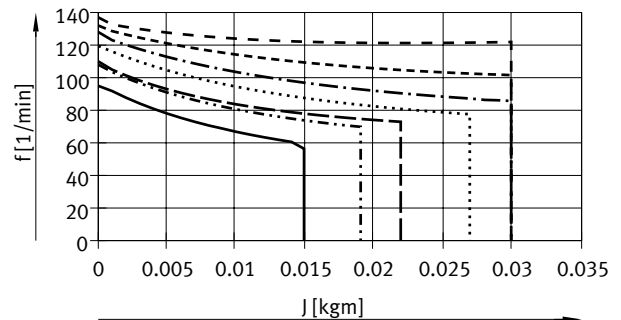


Max. permissible cycle frequency  $f$  as a function of mass moment of inertia  $J$

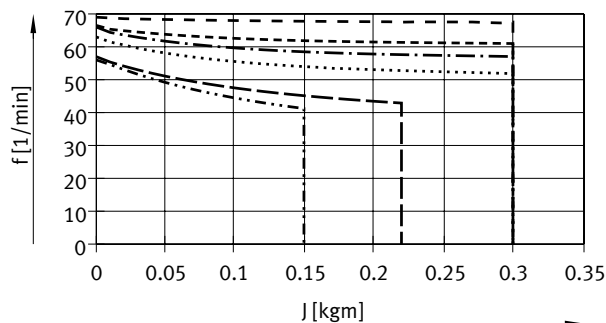
Size 65



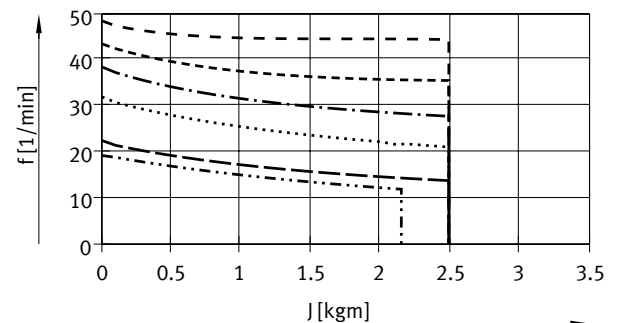
Size 90



Size 140



Size 220



- 2 indexing stations
- ..... 3 indexing stations
- 4 indexing stations
- ..... 6 indexing stations
- 8 indexing stations
- 12 indexing stations
- 24 indexing stations

Data sheet

Energy through-feed

DHTG-...-P4

DHTG-...-P4E4

DHTG-...-P4L12



Function

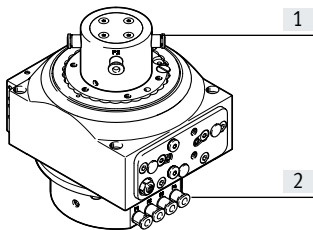
The energy through-feed can be used to transfer electrical signals or compressed air through the hollow shaft.

Advantages

- Fast and easy supply of the parts mounted on the rotating plate
- Tubing and electrical cables are not damaged by the rotation
- Two variants available:
  - Pneumatic
  - Pneumatic and electrical

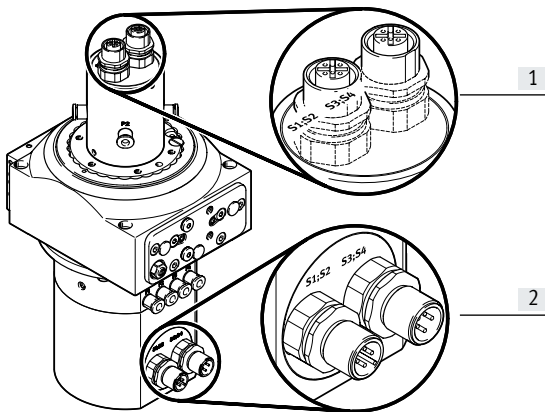
Pneumatic

DHTG-...-P4



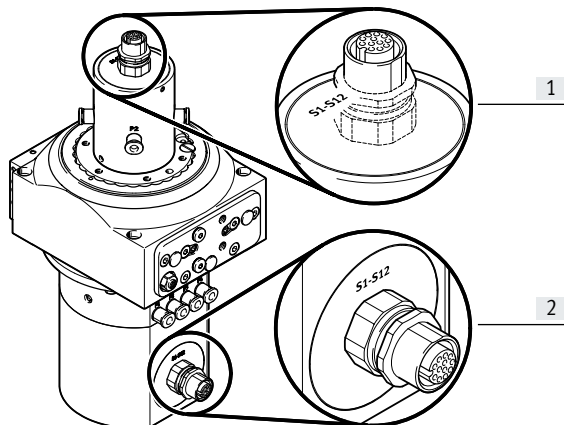
Pneumatic/electrical

DHTG-...-P4E4



- [1] Output
- [2] Input

DHTG-...-P4L12



Data sheet

Technical data			
Variant		Pneumatic	Pneumatic/electrical
Order code		P4	P4E4
			Pneumatic/electrical
			P4/L12
Pneumatic			
Number of pneumatic ducts		4	4
Tubing O.D.		4	
Operating pressure per duct	[bar]	-0.85 ... 8	
Connection		M5	
Flow rate per duct	[l/min]	86	
Electrical			
Number of signal lines		-	4 <sup>1)</sup>
Rated voltage	[V DC]	-	30
Max. current <sup>1)</sup>	[A]	-	1.5
Cable cross section	[mm <sup>2</sup> ]	-	0.14
Connection		-	M12

1) Freely configurable



**Note**

Also approved for vacuum operation.

**Pin allocation – Energy through-feed, electrical**

DHTG-...-P4E4

Input				Output			
M12 plug				M12 socket			
Designation	Contact assignment	Pin	Circuit diagram	Circuit diagram	Pin	Contact assignment	Designation
S1;S2	+ Sig 2 - Sig 1	1 2 3 4			1 2 3 4	+ Sig 2 - Sig 1	S1;S2
S3;S4	+ Sig 4 - Sig 3	1 2 3 4			1 2 3 4	+ Sig 4 - Sig 3	S3;S4

DHTG-...-P4L12

Input		Output	
M12 socket		M12 socket	
Designation	Circuit diagram	Circuit diagram	Designation
Sig 1 ... 12 freely configurable			Sig 1 ... 12 freely configurable



**Note**

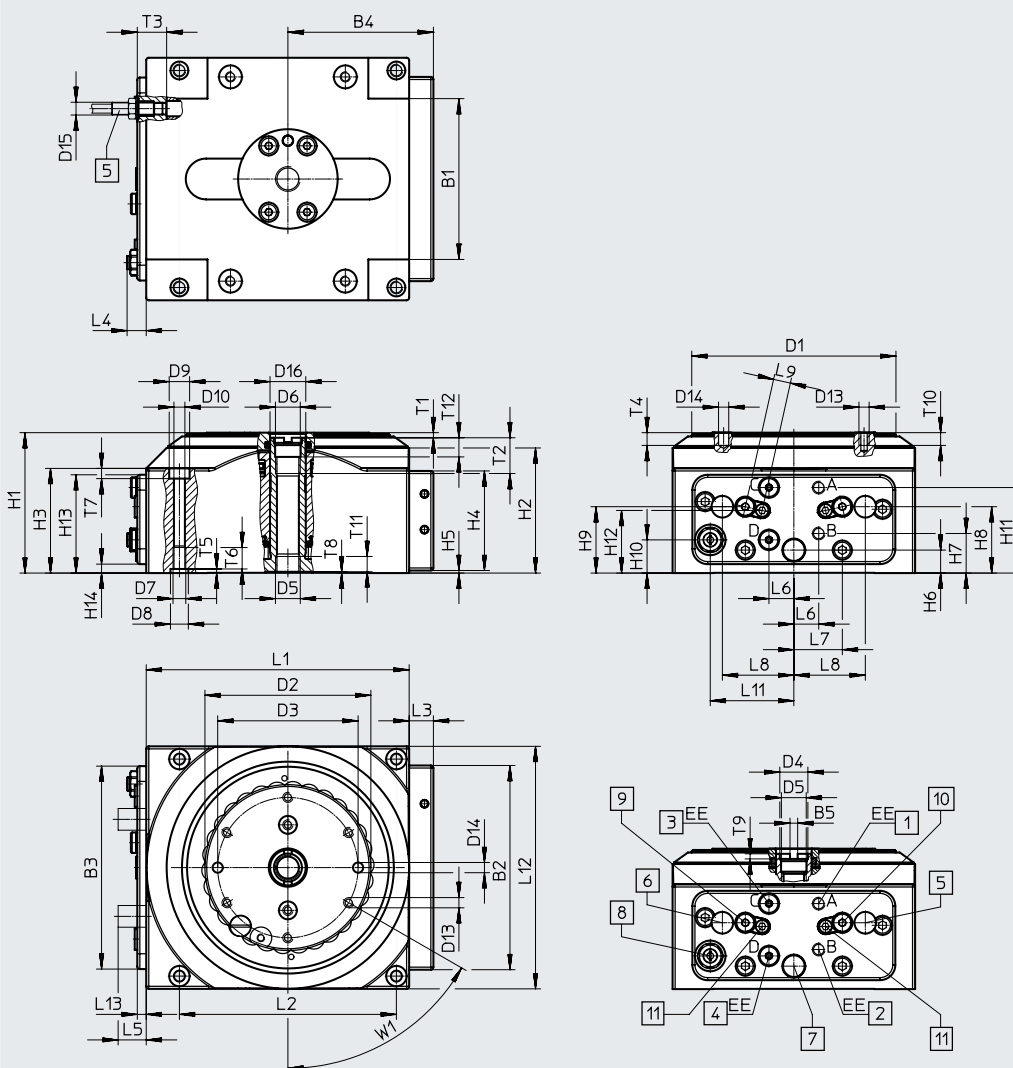
Only connecting cables with straight connectors can be used (→ page 1).

Data sheet

Dimensions

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Size 65



- |  |   |  |
|--|---|--|
| [1] Compressed air supply port: unlock and rotate (reciprocating motion: unlock)         | [4] Sealing plug (for reciprocating motion: rotate compressed air supply port anticlockwise)  | [7] Lock sensing   |
| [2] Compressed air supply port: lock and return stroke (reciprocating motion: lock)      | [5] Sensor turned for clockwise rotation (sensor initial position for anticlockwise rotation) | [8] One-way flow control valve   |
| [3] Sealing plug (for reciprocating motion: rotate compressed air supply port clockwise) | [6] Sensor initial position for clockwise rotation (sensor turned for anticlockwise rotation) | [9] Adjustment of end-position cushioning for anticlockwise rotation and reciprocating motion (not applicable for clockwise rotation)  |
|  |   | [10] Adjustment of end-position cushioning for clockwise rotation and reciprocating motion (not applicable for anticlockwise rotation) |
|  |   | [11] Lock nut for end-position cushioning  |
|  |   | [12] The drilled holes are for attaching the energy through-feed and must not be used.   |

## Data sheet

Size	B1 <sup>3)</sup> ±2	B2	B3	B4	B5 +0.1	D1 ∅	D2 ∅	D3 <sup>1)</sup> ∅	D4 ∅	D5	D6 ∅ H8	D7
65	63	80	79.5	47.5	3	80	65	55	11	G1/8	10	M5

Size	D8 ∅ H8	D9 ∅	D10 ∅	D13	D14 ∅ H8	D15	D16 ∅ H8	EE	H1 ±0.5	H2	H3	H4
65	7	8	4.3	M4	4	M5x0.5	14	M5	55	49	41	39

Size	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	L1 ±0.1	L2 <sup>1)</sup> TM
65	1	9	15.5	26	26	13	33.5	24.5	38.5	3.5	103	85

Size	L3	L4 +1	L5 <sup>2)</sup> max	L6	L7	L8	L9	L11	L12 ±0.1	L13 +0.1	T1 ±1	T2 min
65	9.5	7.5	11	9.75	19	28	6.75	32.75	95	3.5	2	14

Size	T3 min	T4 min	T5 +0.1	T6 min	T7	T8	T9	T10 min	T11 min	T12	W1
65	12	5	1.6	10	4	0.5	2	6	5	7	60°

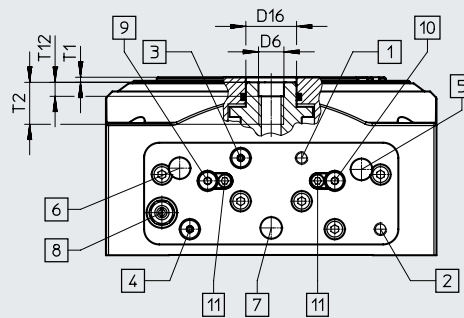
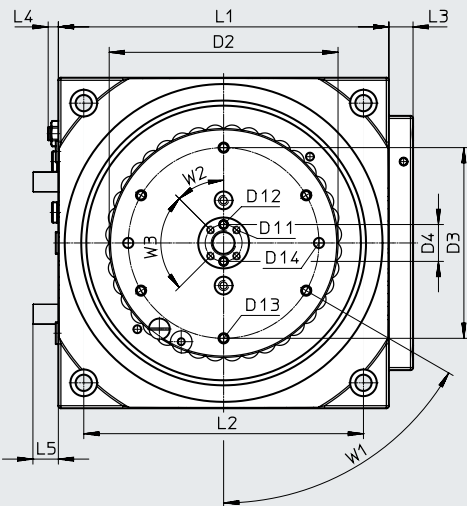
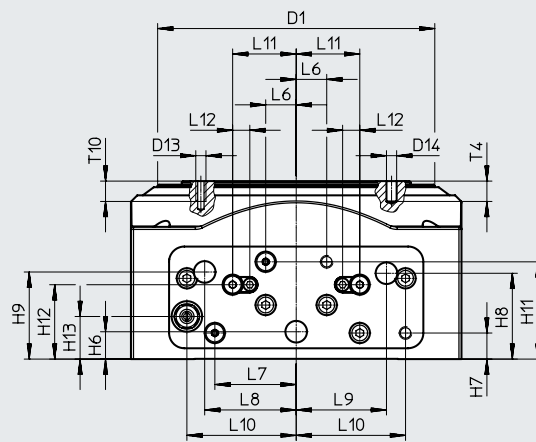
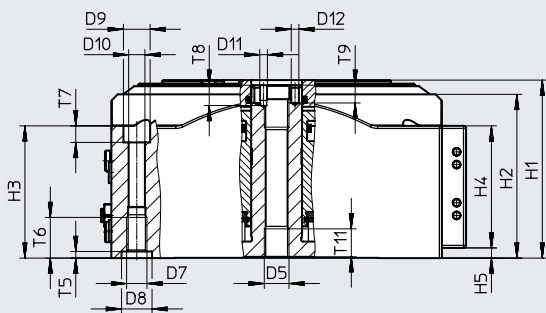
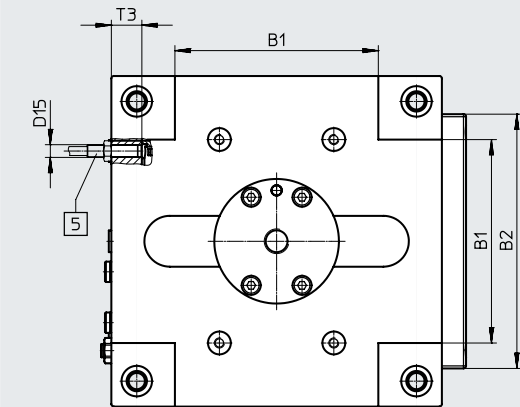
- 1) Tolerance between the centring holes: ±0.02  
Tolerance between the threaded holes and countersinks: ±0.2
- 2) Max. projection of shock absorber adjustment
- 3) 0.1 +0.05 recessed

Data sheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Size 90



- |  |   |   |
|--|---|---|
| [1] Compressed air supply port:<br>unlock and rotate<br>(reciprocating motion: unlock)         | [4] Sealing plug (for reciprocating<br>motion: rotate compressed air<br>supply port anticlockwise)    | [7] Lock sensing  |
| [2] Compressed air supply port:<br>lock and return stroke<br>(reciprocating motion: lock)      | [5] Sensor turned for clockwise<br>rotation (sensor initial position<br>for anticlockwise rotation)   | [8] One-way flow control valve  |
| [3] Sealing plug (for reciprocating<br>motion: rotate compressed air<br>supply port clockwise) | [6] Sensor initial position for clock-<br>wise rotation (sensor turned for<br>anticlockwise rotation) | [9] Adjustment of end-position cushioning for anticlockwise rotation and<br>reciprocating motion (not applicable for clockwise rotation)  |
|  |   | [10] Adjustment of end-position cushioning for clockwise rotation and<br>reciprocating motion (not applicable for anticlockwise rotation) |
|  |   | [11] Lock nut for end-position cushioning   |
|  |   | [12] The drilled holes are used for attaching the energy through-feed and must<br>not be used.  |



## Data sheet

Size	B1 <sup>3)</sup> ±2	B2	D1 ∅	D2 ∅	D3 <sup>1)</sup> ∅	D4 <sup>1)</sup> ∅	D5	D6 ∅ H8	D7	D8 ∅ H8	D9 ∅	D10 ∅
90	80	100	109	90	75	14.5	G1/8	10	M8	12	10.5	6.4
Size	D11	D12 ∅ H8	D13	D14 ∅ H8	D15	D16 ∅ H8	EE	H1 ±0.5	H2	H3	H4	H5
90	M3	3	M4	4	M5x0.5	20	M5	70	64.4	52	48	4
Size	H6	H7	H8	H9	H11	H12	H13	L1 TM ±0.1	L2 <sup>1)</sup> TM	L3	L4	L5 <sup>2)</sup> max
90	10.75	10.25	33.75	34.25	38.25	29.25	16.75	130	110	9.5	4	10
Size	L6	L7	L8	L9	L10	L11	L12	T1 ±1	T2 min	T3	T4 min	
90	12	32	36	35.5	43	25	6.7	2	16.5	12	8	
Size	T5 +0.1	T6 min	T7	T8	T9 min	T10 min	T11 min	T12	W1	W2	W3	
90	2.6	16	6.5	6	5	8	11	5.5	60°	45°	90°	

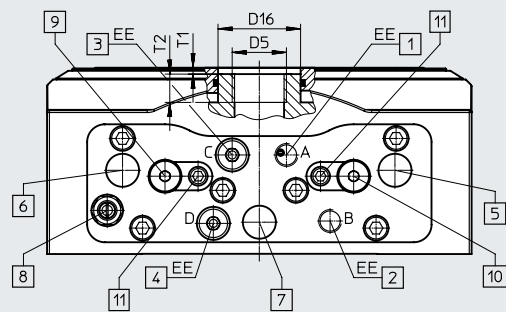
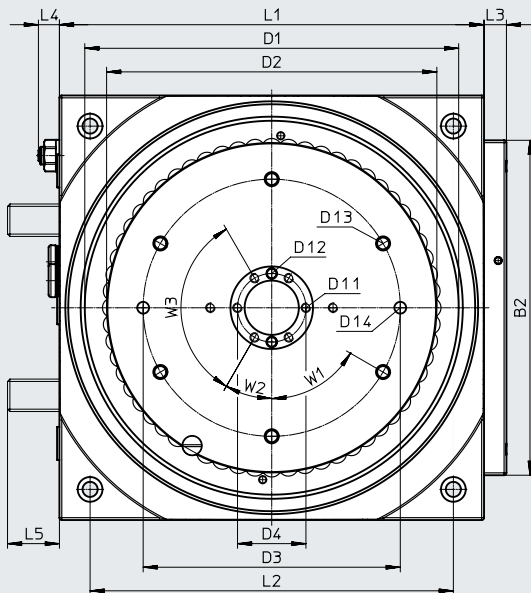
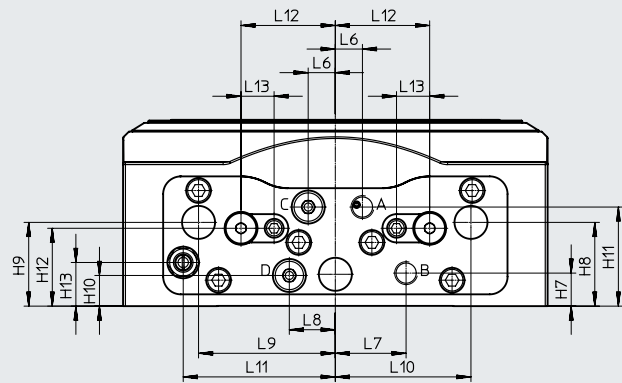
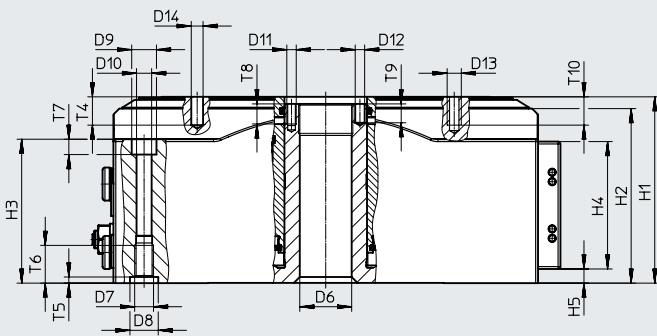
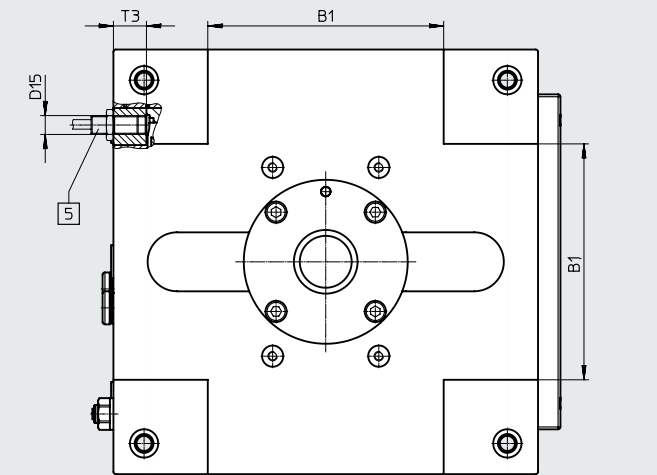
- 1) Tolerance for centring hole ±0.02 mm  
Tolerance for thread ±0.1 mm
- 2) Max. projection of shock absorber adjustment
- 3) 0.1 +0.05 recessed

Data sheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Size 140, 220



- |  |   |  |
|--|---|--|
| [1] Compressed air supply port: unlock and rotate (reciprocating motion: unlock)         | [4] Sealing plug (for reciprocating motion: rotate compressed air supply port anticlockwise)  | [7] Lock sensing   |
| [2] Compressed air supply port: lock and return stroke (reciprocating motion: lock)      | [5] Sensor turned for clockwise rotation (sensor initial position for anticlockwise rotation) | [8] One-way flow control valve   |
| [3] Sealing plug (for reciprocating motion: rotate compressed air supply port clockwise) | [6] Sensor initial position for clockwise rotation (sensor turned for anticlockwise rotation) | [9] Adjustment of end-position cushioning for anticlockwise rotation and reciprocating motion (not applicable for clockwise rotation)  |
|  |   | [10] Adjustment of end-position cushioning for clockwise rotation and reciprocating motion (not applicable for anticlockwise rotation) |
|  |   | [11] Lock nut for end-position cushioning  |
|  |   | [12] The drilled holes are for attaching the energy through-feed and must not be used.   |

## Data sheet

Size	B1 <sup>3)</sup> ±2	B2	D1 ∅	D2 ∅	D3 <sup>1)</sup> ∅	D4 <sup>1)</sup> ∅	D5	D6 ∅	D7	D8 ∅ H8	D9 ∅	D10 ∅	D11	D12 ∅ H8
140	100	142	159	140	109	29	M23x1	22	M8	12	10.5	6.4	M4	4
220	150	212	239	220	165	67	–	58.4	M10	15	13.5	8.4	M5	5

Size	D13	D14 ∅ H8	D15	D16 ∅ H8	EE	H1 ±0.5	H2	H3	H4	H5	H6	H7	H8	H9
140	M6	5	M8x1	35	G1/8	79	74	61	54	6	13.5	14	35.5	35.5
220	M8	6	M8x1	75	G1/8	89	83.5	68.5	64	4.5	13.5	24.5	15	15

Size	H10	H11	H12	H13	L1 TM ±0.1	L2 <sup>1)</sup> TM	L3	L4 +1	L5 <sup>2)</sup> max	L6	L7	L8	L9	L10	L11
140	13	42	33	18.5	180	154	9.5	8.9	22	11.5	30	19.5	58	57.5	64.5
220	24.5	50.5	36.5	24	270	228	12	4.6	22	41	41	41	61	61	99.5

Size	L12	L13	T1 ±1	T2 min	T3 min	T4 min	T5 +0.1	T6 min	T7	T8 min	T9 min	T10 min	W1	W2	W3
140	40	14	3	12	14	8	2.6	16	6.5	8	8	11	60°	30°	120°
220	68	14	4	–	19	8	3.1	20	8.5	10	10	11	60°	30°	120°

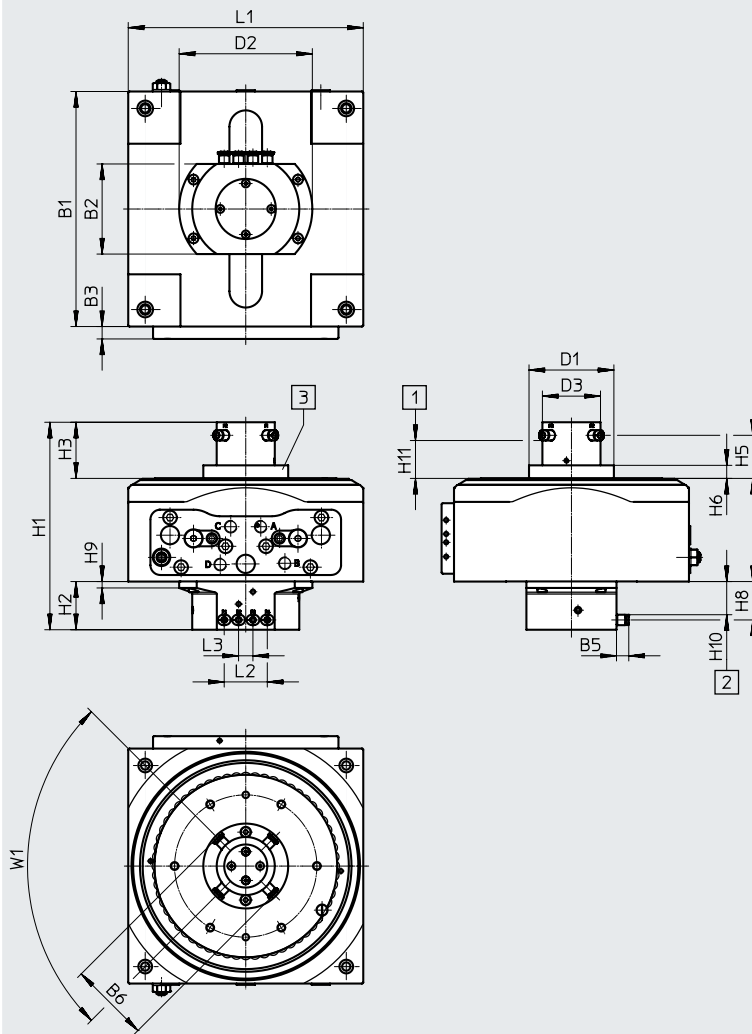
- 1) Tolerance between the centring holes: ±0.02  
Tolerance between the threaded holes and countersinks: ±0.2
- 2) Max. projection of shock absorber adjustment
- 3) 0.1 +0.05 recessed

Data sheet

Dimensions – Variants

Download CAD data → [www.festo.com](http://www.festo.com)

P4 – Pneumatic energy through-feed



- [1] Max. installation height on the rotating plate
- [2] Max. installation height on the
- [3] Mounting surface
- [4] Adapter plate only for size 140 and 220

## Data sheet

Size	B1	B2 ±0.1	B3	B5	B6	D1 ∅ ±0.1	D2 ∅
65	103	69	9.5	9.3	61.4	–	102
90	130		9.5			–	
140	180		9.5			65	
220	270		12			100	

Size	D3 ∅ ±0.1	H1	H2 ±0.1	H3	H5	H6 ±0.1	H8 ±0.1
65	44.5	125	37	33±0.1	23±0.05	–	29.5
90		140		33±0.1	23±0.05	–	
140		159		43±0.2	33±0.15	10	
220		169		43±0.2	33±0.15	10	

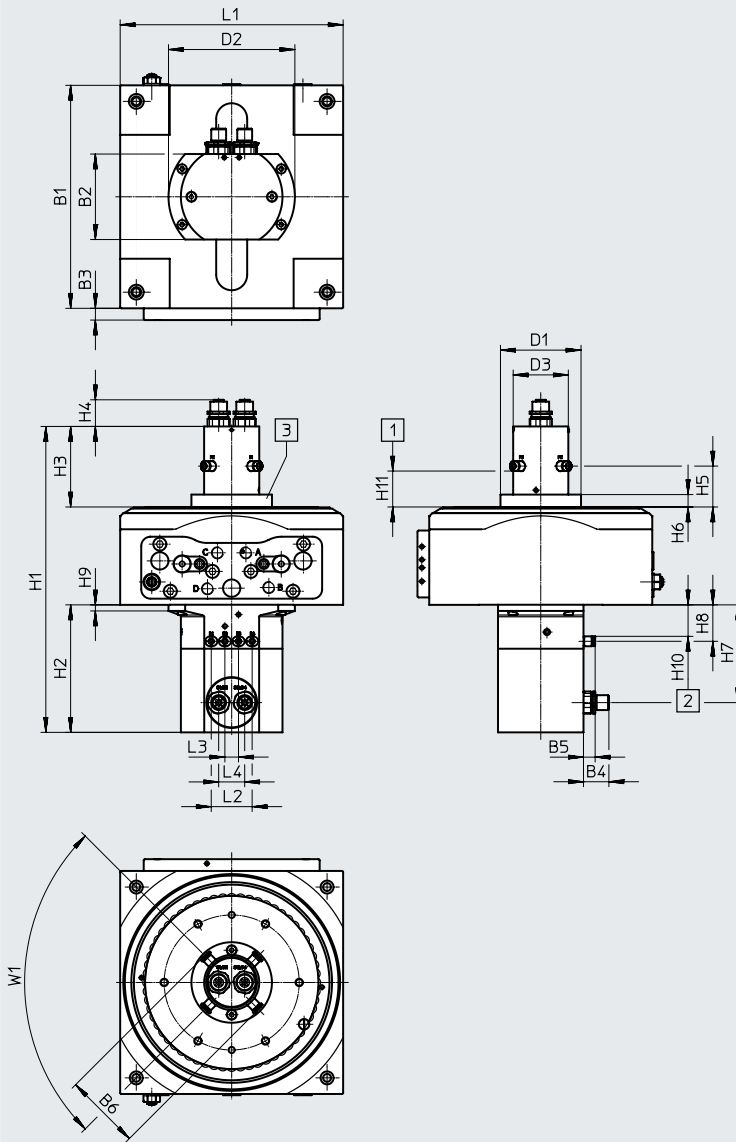
Size	H9	H10	H11	L1	L2 ±0.1	L3 ±0.1	W1
65	5	25	19	95	33	11	90°
90			19	130			
140			29	180			
220			29	270			

Data sheet

Dimensions – Variants

Download CAD data → [www.festo.com](http://www.festo.com)

P4E4 – Pneumatic/electrical energy through-feed



- [1] Max. installation height on the rotating plate
- [2] Max. installation height on the
- [3] Mounting surface
- [4] Adapter plate only for size 140 and 220

## Data sheet

Size	B1	B2 ±0.1	B3	B4 +3	B5	B6	D1 ∅ ±0.1	D2 ∅	D3 ∅ ±0.1
65	103	69	9.5	19	9.3	61.4	–	102	44.5
90	130		9.5				–		
140	180		9.5				65		
220	270		12				100		

Size	H1	H2 ±0.1	H3	H4 +2	H5	H6 ±0.1	H7	H8 ±0.1
65	213	103	55±0.1	17.5	23±0.05	–	79	29.5
90	228		55±0.1		23±0.05	–		
140	247		65±0.2		33±0.15	10		
220	257		65±0.2		33±0.15	10		

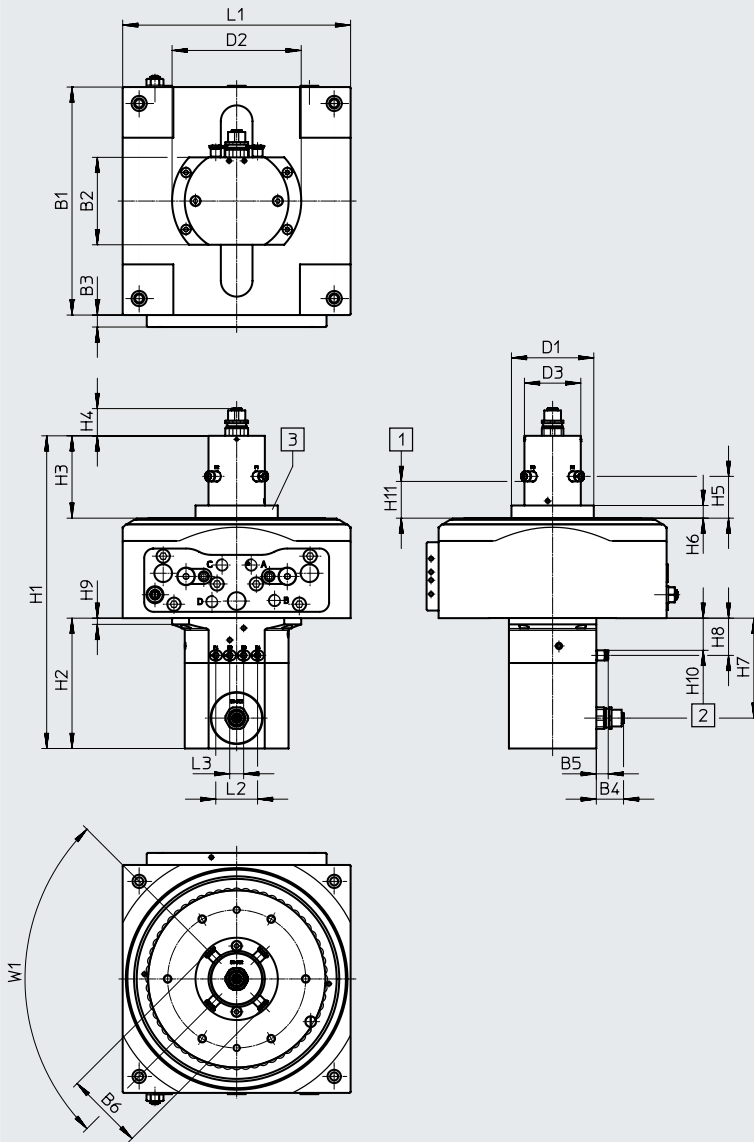
Size	H9	H10	H11	L1	L2 ±0.1	L3 ±0.1	L4	W1
65	5	25	19	95	33	11	21	90°
90			19	130				
140			29	180				
220			29	270				

Data sheet

Dimensions – Variants

Download CAD data → [www.festo.com](http://www.festo.com)

P4L12 – Pneumatic/electrical energy through-feed



- [1] Max. installation height on the rotating plate
- [2] Max. installation height on the mounting surface
- [3] Mounting surface
- [4] Adapter plate only for size 140 and 220



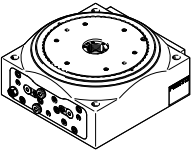
## Data sheet

Size	B1	B2 ±0.1	B3	B4 +3	B5	B6	D1 ∅ ±0.1	D2 ∅
65	103	69	9.5	17.5	9.3	61.4	–	102
90	130		9.5				–	
140	180		9.5				65	
220	270		12				100	

Size	D3 ∅ ±0.1	H1	H2 ±0.1	H3	H4 +2	H5	H6 ±0.1	H7
65	44.5	213	103	55±0.1	17.5	23±0.05	–	79
90		228		55±0.1		23±0.05	–	
140		247		65±0.2		33±0.15	10	
220		257		65±0.2		33±0.15	10	

Size	H8 ±0.1	H9	H10	H11	L1	L2 ±0.1	L3 ±0.1	W1	
65	29.5	5	25	19	95	33	11	90°	
90				19					130
140				29					180
220				29					270

Data sheet

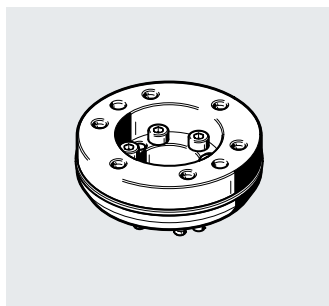
Ordering data	Size	Indexing	Part no.	Type
	65	2	548076	DHTG-65-2-A
		3	555448	DHTG-65-3-A
		4	548077	DHTG-65-4-A
		6	548078	DHTG-65-6-A
		8	548079	DHTG-65-8-A
		12	548080	DHTG-65-12-A
		24	548081	DHTG-65-24-A
	90	2	548082	DHTG-90-2-A
		3	555449	DHTG-90-3-A
		4	548083	DHTG-90-4-A
		6	548084	DHTG-90-6-A
		8	548085	DHTG-90-8-A
		12	548086	DHTG-90-12-A
		24	548087	DHTG-90-24-A
	140	3	555450	DHTG-140-3-A
		4	548088	DHTG-140-4-A
		6	548089	DHTG-140-6-A
		8	548090	DHTG-140-8-A
		12	548091	DHTG-140-12-A
		24	548092	DHTG-140-24-A
	220	3	555451	DHTG-220-3-A
		4	548093	DHTG-220-4-A
		6	548094	DHTG-220-6-A
		8	548095	DHTG-220-8-A
12		548096	DHTG-220-12-A	
24		548097	DHTG-220-24-A	

## Ordering data – Modular product system

Ordering table							
Size	65	90	140	220	Conditions	Code	Enter code
Module no.	<b>575738</b>	<b>575739</b>	<b>575740</b>	<b>575741</b>			
Product type	DHTG series G					<b>DHTG</b>	DHTG
Size	65	90	140	220		-...	
Indexing	2 indexing stations		-			-2	
	3 indexing stations					-3	
	4 indexing stations					-4	
	6 indexing stations					-6	
	8 indexing stations					-8	
	12 indexing stations					-12	
Position sensing	Via proximity switch					A	A
	Energy through-feed					-	
	Pneumatic, 4 ducts					-P4	
	Pneumatic, 4 ducts; electrical, 4 signals					-P4E4	
	Pneumatic, 4 ducts; electrical, 12 cables					-P4L12	

Accessories

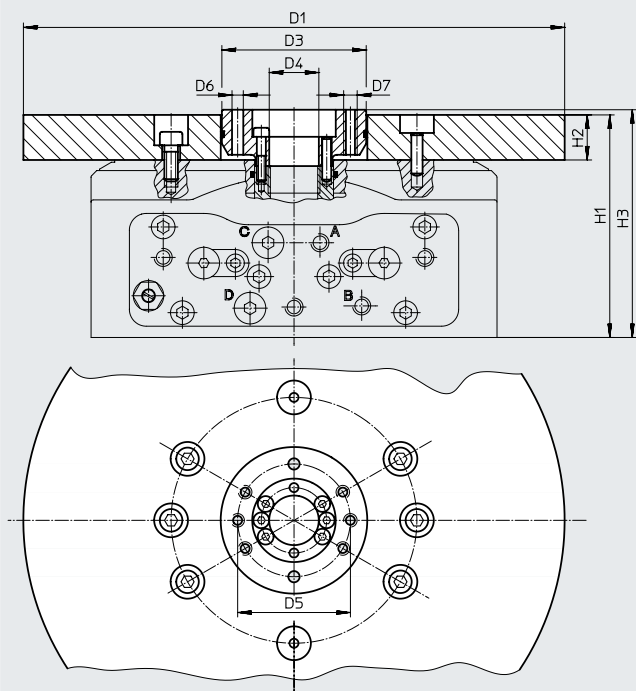
Adapter kit  
DADG-AK



Dimensions

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With rotary plate and adapter kit DADG-AK for mounting a fixed plate



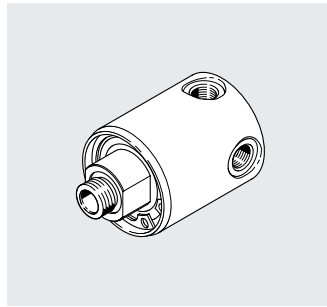
Size	D3 ∅ +0.2	D4 ∅ +0.2	D5 ∅	D6 ∅ H7	D7	H2 max.	H3 ±0.5
DADG-AK-65	29	5	20	4	M4	15	72
DADG-AK-90	39	9	30	4	M4	15	87
DADG-AK-140	64	22	50	5	M6	20	101
DADG-AK-220	104	58.4	90	6	M8	20	111

Ordering data – Adapter kit DADG-AK

	For size	Part no.	Type
	65	555424	DADG-AK-65
	90	555425	DADG-AK-90
	140	555426	DADG-AK-140
	220	555427	DADG-AK-220

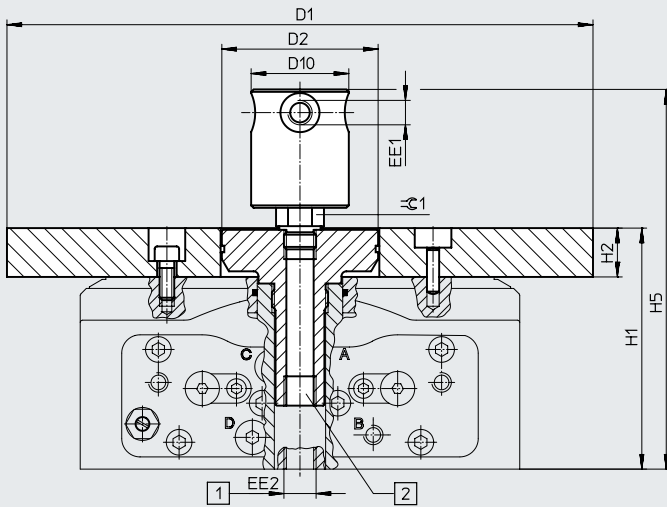
Accessories

Rotary distributor  
 GF-..., single  
 GF-...-2, multiple



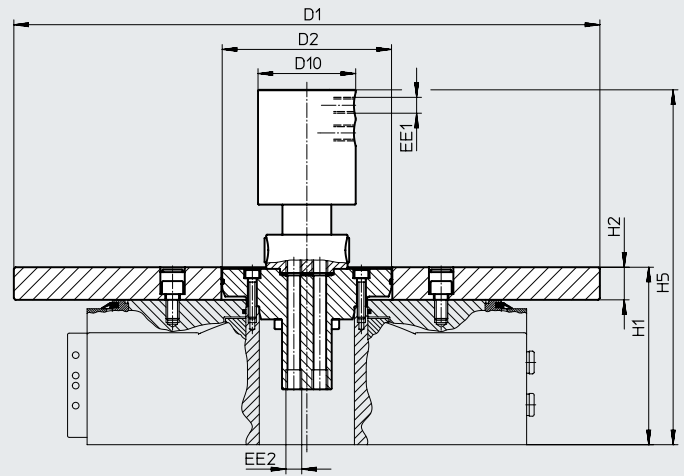
Dimensions

With rotary distributor GF-... (single) and adapter kit DADG-AK-...



Download CAD data → [www.festo.com](http://www.festo.com)

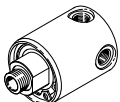
With rotary distributor GF-1/8-2 (multiple) and adapter kit DADG-AK-220-2G18 – for size 220



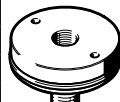
Size	D2	D10 ∅ +0.2	EE1	EE2	H2 max.	H5 ±1	±1
DADG-AK-65-1G18 GF-1/8-M5	29	40	M5	G1/8	15	127.5	17
DADG-AK-90-1G18 GF-1/8-M5	39	40	M5	G1/8	15	142.5	17
DADG-AK-140-1G14 GF-1/4-1/8	64	40	G1/8	G1/4	20	155.5	17
DADG-AK-220-1G12 GF-1/2-1/4	104	60	G1/4	G1/2	20	187.5	27

Ordering data

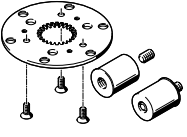
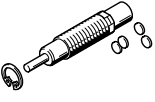
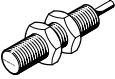
Rotary distributor GF

	For size	Part no.	Type
	<b>Single</b>		
	65, 90	539290	GF-1/8-M5
	140	539291	GF-1/4-1/8
	220	539292	GF-1/2-1/4
	<b>Multiple</b>		
	220	539287	GF-1/8-2

Adapter kit DADG-AK

	For size	Part no.	Type
	<b>Single</b>		
	65	555428	DADG-AK-65-1G18
	90	555429	DADG-AK-90-1G18
	140	555430	DADG-AK-140-1G14
	220	555431	DADG-AK-220-1G12
	<b>Multiple</b>		
	220	555432	DADG-AK-220-2G18

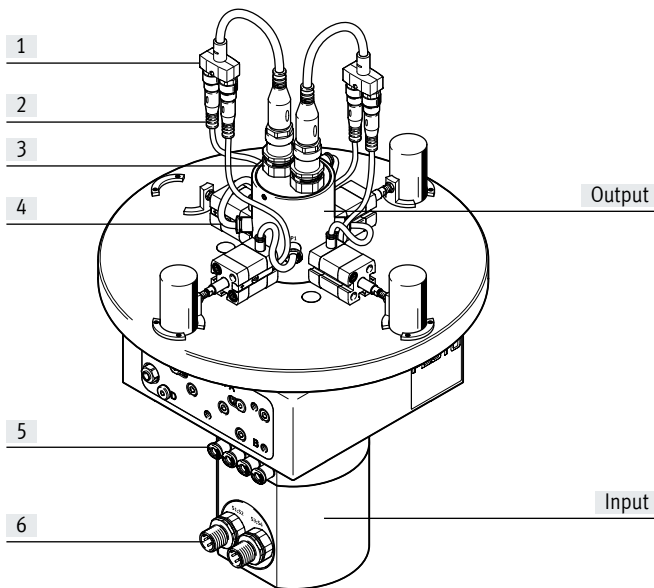
## Accessories

Ordering data						
	For size	Indexing		Part no.	Type	
<b>Indexing conversion kit DADM-CK</b>						
	65	2		548098	DADM-CK-65-2	
		3		554389	DADM-CK-65-3	
		4		548099	DADM-CK-65-4	
		6		548100	DADM-CK-65-6	
		8		548101	DADM-CK-65-8	
		12		548102	DADM-CK-65-12	
		24		548103	DADM-CK-65-24	
	90	2		548104	DADM-CK-90-2	
		3		555445	DADM-CK-90-3	
		4		548105	DADM-CK-90-4	
		6		548106	DADM-CK-90-6	
		8		548107	DADM-CK-90-8	
		12		548108	DADM-CK-90-12	
		24		548109	DADM-CK-90-24	
	140	3		555446	DADM-CK-140-3	
		4		548110	DADM-CK-140-4	
		6		548111	DADM-CK-140-6	
		8		548112	DADM-CK-140-8	
		12		548113	DADM-CK-140-12	
		24		548114	DADM-CK-140-24	
	220	3		555447	DADM-CK-220-3	
		4		548115	DADM-CK-220-4	
		6		548116	DADM-CK-220-6	
		8		548117	DADM-CK-220-8	
12			548118	DADM-CK-220-12		
24			548119	DADM-CK-220-24		
<b>Reciprocating motion kit DADM-TK</b>						
	65	-		548120	DADM-TK-65	
	90			548121	DADM-TK-90	
	140			563304	DADM-TK-140	
	220			563305	DADM-TK-220	
<b>Ordering data – Proximity switch, inductive</b> <span style="float: right;">Data sheets → Internet: sien</span>						
	65, 90	N/O contact	Plug	150371	SIEN-M5B-PS-S-L	
		N/C contact	Plug	150375	SIEN-M5B-PO-S-L	
	140, 220	N/O contact	Cable	150386	SIEN-M8B-PS-K-L	
			Plug	150387	SIEN-M8B-PS-S-L	
		N/C contact	Cable	150390	SIEN-M8B-PO-K-L	
			Plug	150391	SIEN-M8B-PO-S-L	
<b>Ordering data – Connecting cables</b> <span style="float: right;">Data sheets → Internet: nebu</span>						
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	Cable length [m]	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3	
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3	
			5	541341	NEBU-M8W3-K-5-LE3	

## Accessories

**Wiring of the proximity switches in combination with the energy through-feed**

Sample illustration using DHTG-...-P4E4


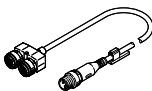
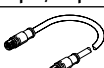
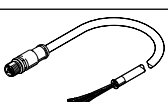


- [1] Y-distributor  
NEDY-L2R1-V1-...
- [2] Proximity switch with plug
- [3] Electrical connection (output)
- [4] Compressed air supply port  
(output)
- [5] Compressed air supply port  
(input)
- [6] Electrical connection (input)

**Note**

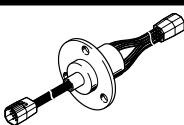
For variant DHTG-...-P4E4, proximity switches with plugs must be used for the attachments at the output. These are then connected to the energy through-feed module using a Y-distributor.

**Ordering data – Connecting cables for proximity switches**

	Electrical connection, left	Electrical connection, right	Suitable for energy chains	Cable length [m]	Part no.	Type		
<b>DHTG-...-P4E4</b>								
<b>Input</b>								
	Straight socket, M12x1, 5-pin	Cable, open end, 4-wire	■	2.5	550326	NEBU-M12G5-K-2.5-LE4		
				5	541328	NEBU-M12G5-K-5-LE4		
<b>Output</b>								
	Straight plug, M12x1, 4-pin	2x straight sockets, M8x1, 3-pin	–	0.3 <sup>1)</sup>	8032867	NEDY-L2R1-V1-M8G3-U-M12G4-0.3R		
<b>DHTG-...-P4L12</b>								
<b>Input/output</b>								
	Straight plug, M12x1, 12-pin	Straight plug, M12x1, 12-wire	■	0.3	3947404	NEBS-SM12G12-E-0.3-N-M12G12		
				Cable, open end, 12-wire	■	0.5	3947401	NEBS-SM12G12-E-0.5-N-LE12
						5	3947395	NEBS-SM12G12-E-5-N-LE12

1) Cable lengths can be selected between 0.3 m and 30 m → Internet: nedy

**Ordering data – Rotary through-feed**

	Description	Part no.	Type
	Spare part for energy through-feed. Can be replaced as needed.	3920687	DHAS-SCR12-H6