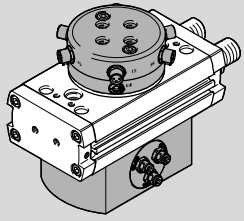


DRRD-...-P.E..

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Appendix to the operating instructions

8103851
 2018-12a
 [8103853]

Translation of the original instructions

Energy throughfeed DRRD-...-P.E.. English

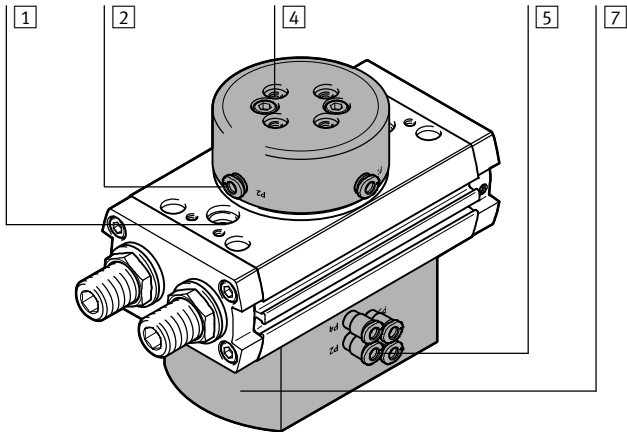
For all available product documentation → www.festo.com/pk

→ Note

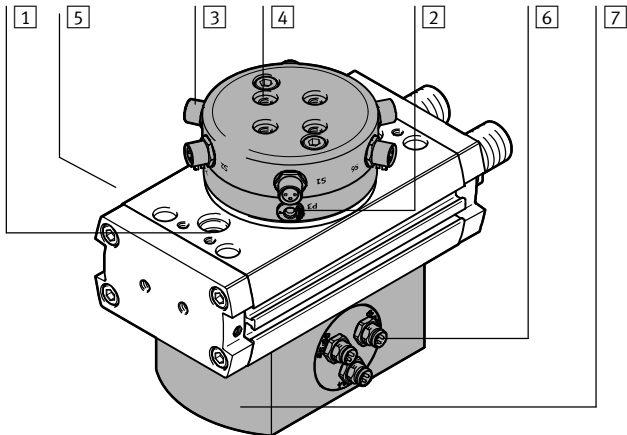
- Observe the warnings and instructions in the operating instructions for the DRRD semi-rotary drive.

1 Control sections and connections

DRRD-...-P. (pneumatic)



DRRD-...-P.E.. (pneumatic and electric)



- | | |
|---|--|
| 1 Through-hole for mounting the DRRD (2x) | 5 Supply port P1 ... P8 (input) |
| 2 Supply port P1 ... P8 (output) | 6 Electrical input S1 ... S8 (plug) |
| 3 Electrical output S1 ... S8 (socket) | 7 Housing |
| 4 Mounting interface for working load (4x) | |

Fig. 1

2 Function and application

The energy throughfeed DRRD-...-P.E.. serves to permit the passage of compressed air and electrical signals through the drive shaft of the DRRD semi-rotary drive.

3 Installation

3.1 Installation, mechanical

- Affix the DRRD with two screws to holes **1** and with 2 centring sleeves to the housing **7**.
- Affix the working load with at least two screws positioned opposite one another to the drive flange, and with centring sleeves to threads **4**.
Tightening torques are shown in the table below.

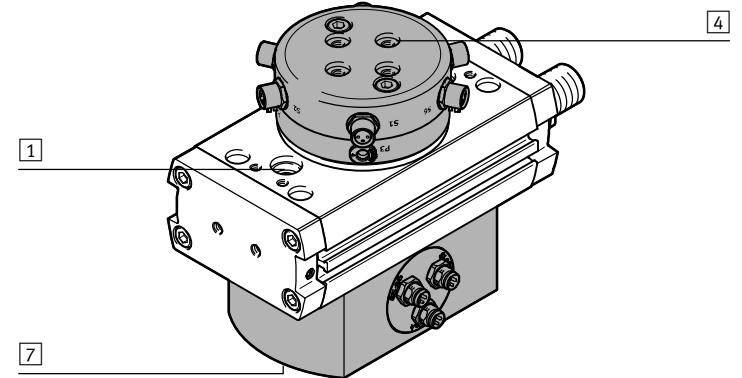


Fig. 2

Size	16	20	25	32	35	40	50	63
Mounting of DRRD								
Screw in 1 (direct mounting)	M5	M5	M6	M8	M8	M10	M10	M12
Tightening torque [Nm]	6	6	10	18	18	30	30	55
Screw through 1 (through-fastening)	M4	M4	M5	M6	M6	M8	M8	M10
Tightening torque [Nm]	3	3	6	10	10	18	18	30
Centring sleeve ZBH [mm]	9	9	12	15	15	15	15	25
Mounting of working load								
Screw in 4	M4	M4	M5	M6	M6	M6	M8	M10
Tightening torque [Nm]	3	3	6	10	10	10	20	40
Centring sleeve ZBH [mm]	7	7	9	9	9	9	12	15

Fig. 3

3.2 Installation, pneumatic

If using the energy throughfeed with pneumatic connections DRRD-...-P.:

- Connect tubes to pneumatic connections **2** and **5**.
Corresponding port identifications are used to indicate which tube to fit to which push-in fitting (tubing dimensions → Fig. 8).

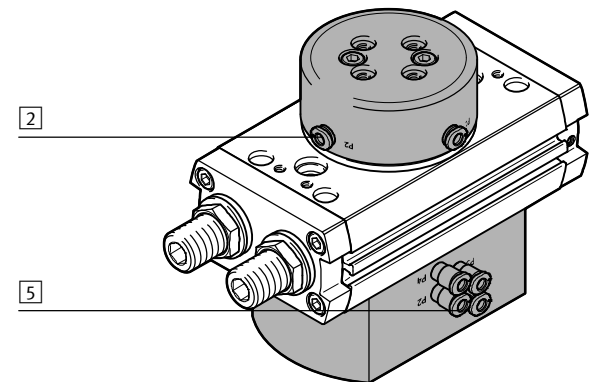


Fig. 4

3.3 Installation, electric



Warning

Danger of short circuit! If one of the electrical inputs **6** is supplied with voltage, there will be voltage at all electrical inputs, because the positive and negative lines are connected together inside the component.

- Ensure that the electrical inputs **6** share a common voltage source. Otherwise the DRRD may be irreparably damaged by large compensating currents.
- Leave the cover caps on the unused plugs **6**.
The plugs **6** on the side of the housing are not protected in any other way against accidental contact.



Note

- Only use connection accessories with a straight plug (Accessories → www.festo.com/catalogue) at electrical connections [3] and [6].

If using the energy throughfeed with electrical connections DRRD-...-P.E.:

- Connect lines to electrical connections [3] and [6].
Corresponding port identifications (A) are used to indicate which plug to plug into which socket.

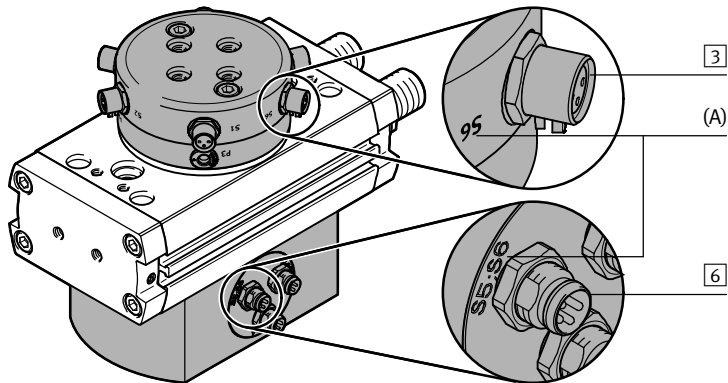


Fig. 5

Pin allocation DRRD-16/20...-P2E2 1)

Electrical connection	Input	Output
Number of connections	2 (plug [6])	2 (sockets [3])
Designation (A)	S1, S2	S1, S2
Circuit diagram		

- 1) All contacts 1 (positive) connected with one another.
All contacts 3 (negative) connected with one another.

Pin allocation DRRD-25/32/35...-P4E6 1)

Electrical connection	Input	Output
Number of connections	3 (plug [6])	6 (sockets [3])
Designation (A)	S1;S2, S3;S4, S5;S6	S1, S2, S3, S4, S5, S6
Circuit diagram		

- 1) All contacts 1 (positive) connected with one another.
All contacts 3 (negative) connected with one another.

Pin allocation DRRD-40/50/63...-P8E8 1)

Electrical connection	Input	Output
Number of connections	4 (plug [6])	4 (sockets [3])
Designation (A)	S1;S2, S3;S4, S5;S6, S7;S8	S1;S2, S3;S4, S5;S6, S7;S8
Circuit diagram		

- 1) All contacts 1 (positive) connected with one another.
All contacts 3 (negative) connected with one another.

Fig. 6

In DRRD-...-P4E6, two electrical outputs [3] are assigned to each electrical output [6].

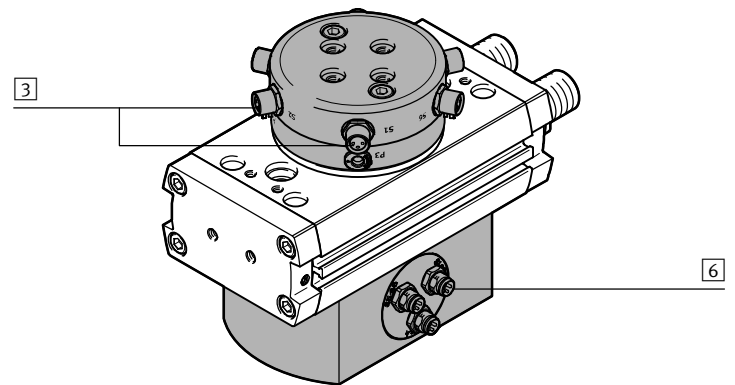


Fig. 7

4 Technical data

Size	16	20	25	32	35	40	50	63
Pneumatic specifications (DRRD-...-P.)								
Number of pneumatic connections	2	4	4	8	8	8	8	8
Tubing O.D.∅	[mm]	4						
Max. operating pressure	[bar]	8						
Flow rate per channel	[l/min]	86					33	
Electrical specifications (DRRD-...-P.E.)								
Rated voltage	[V]	30						
Max. perm. current per signal line 1)	[A]	1.5						
Cable cross section	[mm ²]	0.14						
Number of signal lines		2	6	6	8	8	8	8
Electrical connection		M8					M12	
Materials								
Housing		Anodised aluminium						
Plug		PA, CuZn, NBR, PU						
Weight (energy throughfeed only)								
P.	[kg]	0.32	0.35	0.71	0.92	1.09	1.47	1.95
P.E.	[kg]	0.46	0.48	0.72	0.90	0.88	1.77	2.33

- 1) The positive and negative lines of all electrical connections are connected together. The combined maximum peak current for this common positive and negative line is likewise 1.5 A.

Fig. 8