

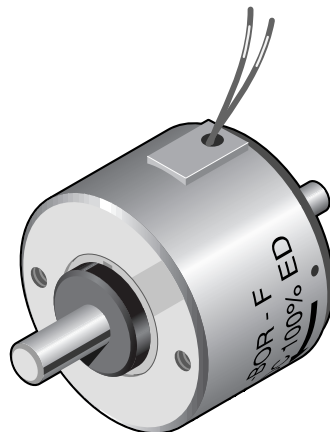
# D5 Series Rotary Solenoid

Voltage rating	V DC	24					205					V DC	Voltage rating
ED* LK	%	100	44	21	13	5	100	35	22	13	5	%	ED* LK
Current rating	mA	420	875	1.740	2.760	6.490	45	127	195	322	840	mA	Current rating
Nominal resistance	Ω	57,4	27,4	13,8	8,7	3,7	4.546	1.613	1.050	636	244	Ω	Nominal resistance
D 52, 25°	MA Ncm	6,8	11,4	16,0	18,5	23,5	5,8	11,5	14,5	17,5	23,0	Ncm MA	D 52, 25°
	ME Ncm	11,5	15,3	19,0	21,3	26,0	10,5	15,4	17,5	21,0	25,0	Ncm ME	
D 53, 35°	MA Ncm	5,2	9,4	13,5	16,0	22,0	4,4	9,5	12,2	15,2	21,0	Ncm MA	D 53, 35°
	ME Ncm	10,2	13,5	16,0	17,5	20,0	9,4	13,6	15,2	17,0	19,5	Ncm ME	
D 54, 45°	MA Ncm	3,6	6,8	11,0	13,8	18,8	3,1	6,9	9,6	12,5	18,0	Ncm MA	D 54, 45°
	ME Ncm	9,3	12,5	14,5	16,0	18,0	8,6	12,5	14,0	15,5	17,7	Ncm ME	
D 56, 65°	MA Ncm	2,2	4,4	8,1	10,3	15,5	1,9	4,5	6,7	9,8	14,5	Ncm MA	D 56, 65°
	ME Ncm	8,6	11,5	13,5	14,3	15,0	8,1	11,6	12,8	14,0	15,0	Ncm ME	
D 59, 95°	MA Ncm	0,8	2,2	4,1	5,6	9,8	0,6	2,2	3,3	5,1	9,1	Ncm MA	D 59, 95°
	ME Ncm	7,2	8,9	9,8	9,8	9,2	6,6	9,0	9,6	9,8	9,2	Ncm ME	

\* By using a cooling surface  $\geq 300 \text{ cm}^2$ , the permissible duty cycle can be extended up to 1.7x normal rating

MA = Initial torque  
 ME = End torque (5° before end of rotary angle)

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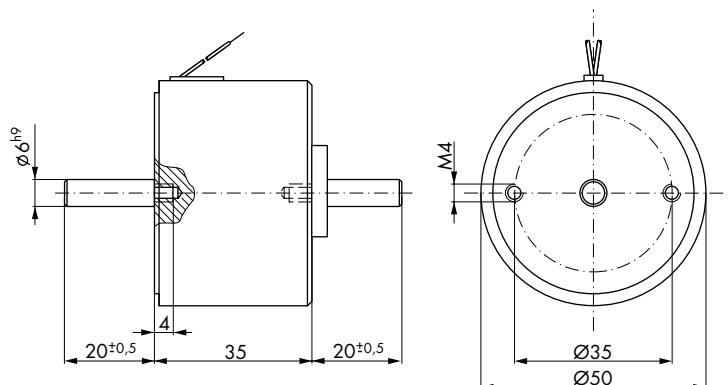


Coil terminals: - Flying leads  
 - Solder terminal box (6.3 DIN 46247)

Weight: appr. 380 g  
 Dyn. moment of inertia (rotational mass): appr.  $1.8 \cdot 10^{-6} \text{ kg m}^2$   
 Time constant: appr. 8–25 ms

All solenoids with MA > 2.5 Ncm are available with spring return, with a rating of MR = 2.0 Ncm approximately.

The operational voltage of 205 V DC results from rectifying 230 V AC with a bridge rectifier.



## D5 Series Ordering Information

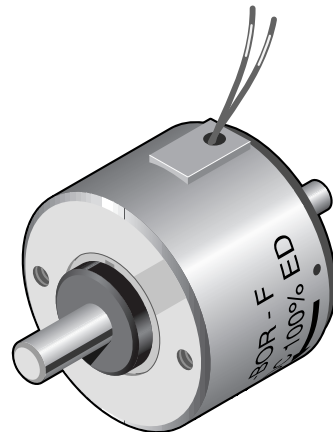
D	5	3	-ROR-	- N -	24 V DC	100 % ED	Order specifications
D							Rotary solenoids
	5						
							Angular travel
		2					25°
		3					35°
		4					45°
		6					65°
		9					95°
			-ROR-				Shaft and rotation options
							Coil terminals
				F			Flying leads (20 cm standard length)
				N			Terminal box <sup>3)</sup>
							Nominal voltage
					24		Standard voltage
					205		(connected to 230 V AC with Si-bridge rectifier)
						100 % ED	Perm. duty cycle under air cooled conditions (LK)

Preferred types competitively priced and available on a quick delivery.

**D54-BOR-F-24VDC 100%ED**

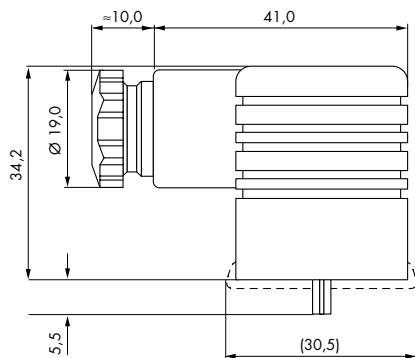
**D59-BOR-F-24VDC 100%ED**

<sup>3)</sup> Suits push-on connector 6.3 DIN 46247 and plug-in socket No. Z801.



Insulation class: B (max. permissible temperature = 130 °C)  
 Test voltage: 2500 V (eff)  
 (D 2: 1500 eff)  
 Accessories: Plug-in socket Z801

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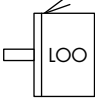
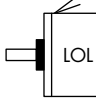
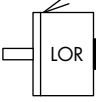
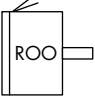
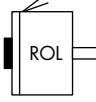
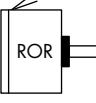
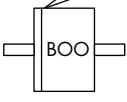
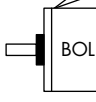
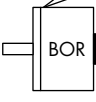
**Plug-in socket Z801**  
 Screw joint PG 9  
 for lead diameter 4.5 - 7 mm

**Plug-in socket Z811**  
 Screw joint PG 11  
 for lead diameter 6 - 9 mm  
 Plug-in socket with built in Si-bridge rectifier



# D5 Series Shaft & Rotation Options

## Shaft designs

Normal	Spring return
	
	
	
	
	
	

The following types of rotary solenoids are available. Resulting in the following abbreviations for ordering:

### 1. letter

Direction of rotation (facing the output shaft)

- L** anti-clockwise rotation
- R** clockwise rotation
- B** shaft extensions both ends

### 2. letter

Centering shoulder

- O** standard type without mounting ring
- R** optional
- L** optional

### 3. letter

Return spring – the torque exerted by the spring is to be subtracted from the torque values given in the data sheets

- L** on the anti-clockwise shaft end
- R** on the clockwise shaft end
- O** no return spring fitted
- B** both sides

### Example 1

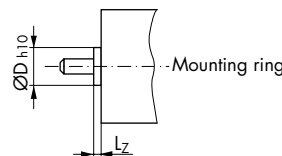
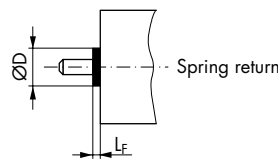
anti-clockwise rotation, no return spring, standard shaft length  
**LOO** -

### Example 2

shaft extensions on both ends, return spring on anti-clockwise rotation end  
**BOL** -

Spring return arrangement (with protection cap)

Mounting ring



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Dimensions in mm	Solenoid size
	D5
Ø D	21,0
L <sub>f</sub>	6,0
Ø D <sub>h10</sub>	19,0
L <sub>z</sub>	3,0