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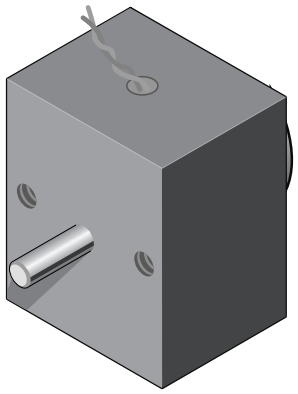
E3 Series Rotary Solenoid

Voltage rating		V DC	24						205						V DC		Voltage rating
ED* LK		%	100	70	45	30	15	5	100	70	45	25	15	5	%		ED* LK
Current rating		mA	365	560	850	1.290	2.500	6.315	40	64	99	164	259	730	mA		Current rating
Nominal resistance		Ω	65,7	42,6	28,1	18,6	9,6	3,8	5.130	3.227	2.076	1.250	793	281	Ω		Nominal resistance
E 32, 25°	M_A	Ncm	1,30	1,95	3,00	4,80	7,30	10,20	1,25	1,80	2,80	4,60	6,50	9,90	Ncm	M_A	E 32, 25°
	M_E	Ncm	2,50	3,60	4,90	7,50	9,50	11,20	2,40	3,30	4,70	6,80	8,80	11,00	Ncm	M_E	
E 33, 35°	M_A	Ncm	1,10	1,75	2,70	4,20	6,40	9,60	1,00	1,60	2,45	4,00	5,70	9,25	Ncm	M_A	E 33, 35°
	M_E	Ncm	2,25	3,30	4,50	6,10	8,00	9,50	2,20	3,00	4,30	5,90	7,50	9,30	Ncm	M_E	
E 34, 45°	M_A	Ncm	0,90	1,55	2,40	3,50	5,60	9,10	0,80	1,40	2,20	3,40	5,00	8,75	Ncm	M_A	E 34, 45°
	M_E	Ncm	2,00	3,00	4,10	5,20	6,60	8,10	1,90	2,25	4,00	5,00	6,15	7,95	Ncm	M_E	
E 36, 65°	M_A	Ncm	0,60	1,00	1,20	2,40	4,10	7,20	0,55	0,90	1,35	2,30	3,60	6,90	Ncm	M_A	E 36, 65°
	M_E	Ncm	1,70	2,20	3,10	3,80	5,00	6,10	1,50	2,10	3,00	3,75	4,60	6,00	Ncm	M_E	
E 39, 95°	M_A	Ncm	0,20	0,55	0,95	1,20	2,00	4,80	0,20	0,50	0,85	1,15	1,75	4,50	Ncm	M_A	E 39, 95°
	M_E	Ncm	1,40	1,50	2,00	2,50	3,60	4,40	1,25	1,50	2,00	2,50	3,30	4,20	Ncm	M_E	

* By using a cooling surface ≥ 150 cm², the permissible duty cycle can be extended up to 1.7x normal rating

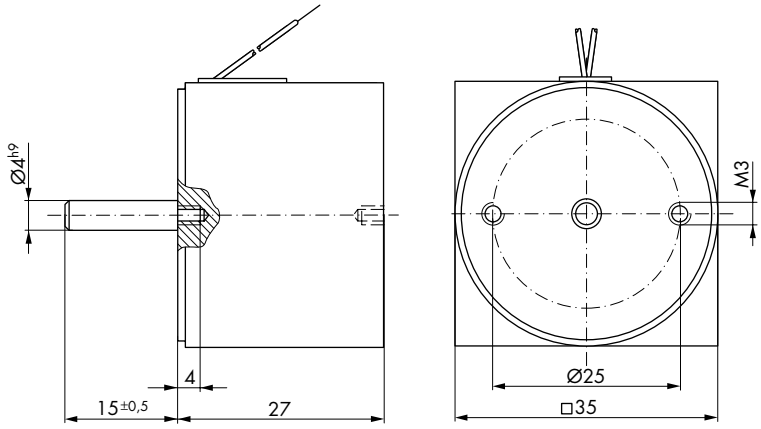
M_A = Initial torque
M_E = End torque (5° before end of rotary angle)



Coil terminals: Flying leads
Weight: appr. 200 g
Dyn. moment of inertia (rotational mass): appr. $0.6 \cdot 10^{-6}$ kg m²
Time constant: appr. 2.5–10 ms

All solenoids with M_A > 0.6 Ncm are available with spring return, with a rating of M_R = 0.5 Ncm approximately.

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



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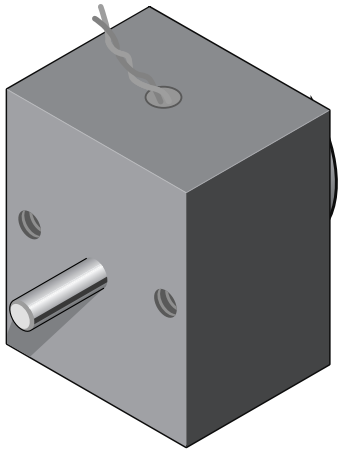
E3 Series Ordering Information

E	3	4	-LOL-	- N -	24 V DC	100 % ED	Order specifications
E							Rotary solenoid
	3						
							Angular travel
		2					25°
		3					35°
		4					45°
		6					65°
		9					95°
			-LOL-				Shaft design
							Coil terminals
				F			Flying leads (20 cm standard length)
							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)



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

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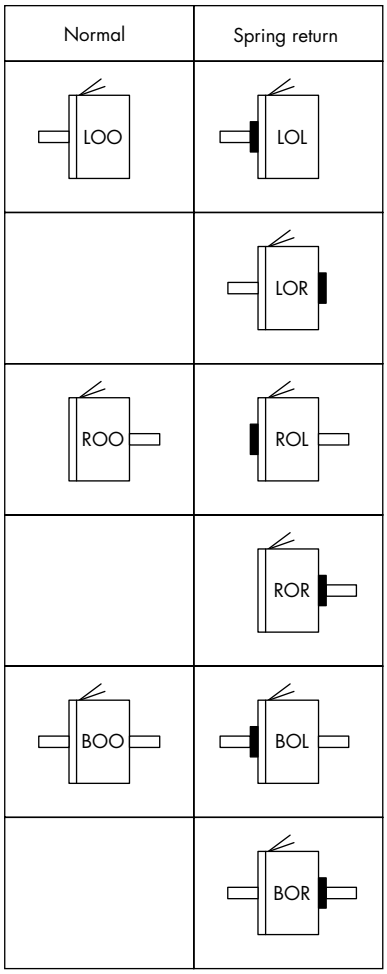
E3 Series Shaft & Rotation Options



Shaft designs

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

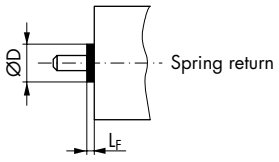
1. letter
Direction of rotation (facing the output shaft)
L anti-clockwise rotation
R clockwise rotation
B shaft extensions both ends

2. letter
Centering shoulder
O standard type without mounting ring
R optional
L optional

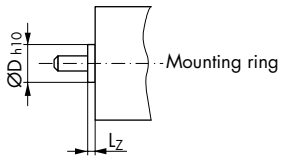
3. letter
Return spring – the torque exerted by the spring is to be subtracted from the torque values given in the data sheets
L on the anti-clockwise shaft end
R on the clockwise shaft end
O no return spring fitted
B both sides

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

Dimensions in mm	Solenoid size E3
Ø D	15,0
L_F	6,0
Ø D_{h10}	13,0
L_Z	1,8