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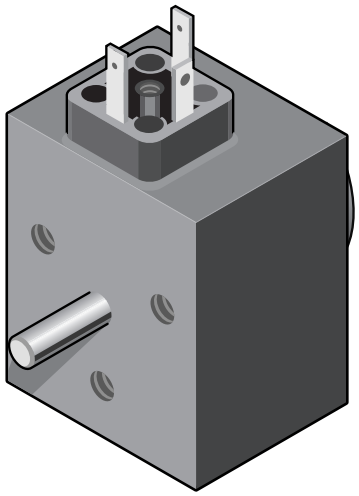
E7 Series Rotary Solenoid

Voltage rating		V DC	24					205					V DC		Voltage rating
ED* LK		%	100	79	46	23	8	100	70	45	23	5	%		ED* LK
Current rating		A	1,24	1,56	2,55	4,90	12,60	0,13	0,20	0,30	0,57	2,21	A		Current rating
Nominal resistance		Ω	19,4	15,4	9,4	4,9	1,9	1.616	1.020	685	362	92,6	Ω		Nominal resistance
E 72, 25°	M_A	Ncm	62	70	85	105	134	50	63	84	105	151	Ncm	M_A	E 72, 25°
	M_E	Ncm	78	84	96	112	133	70	82	96	112	141	Ncm	M_E	
E 73, 35°	M_A	Ncm	50	58	74	95	126	40	55	79	94	140	Ncm	M_A	E 73, 35°
	M_E	Ncm	72	77	87	95	102	60	76	86	94	102	Ncm	M_E	
E 74, 45°	M_A	Ncm	38	45	63	84	111	32	44	63	84	130	Ncm	M_A	E 74, 45°
	M_E	Ncm	67	70	78	85	90	60	70	78	84	84	Ncm	M_E	
E 76, 65°	M_A	Ncm	23	27	43	62	92	21	27	43	61	106	Ncm	M_A	E 76, 65°
	M_E	Ncm	60	63	70	72	69	55	61	70	72	65	Ncm	M_E	
E 79, 95°	M_A	Ncm	12,4	14	22	36	60	10,5	13,5	21	34	71	Ncm	M_A	E 79, 95°
	M_E	Ncm	45	46	50	50	42	40	44	48	48	36	Ncm	M_E	

* By using a cooling surface ≥ 900 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
- Terminal box (6.3 DIN 46247)

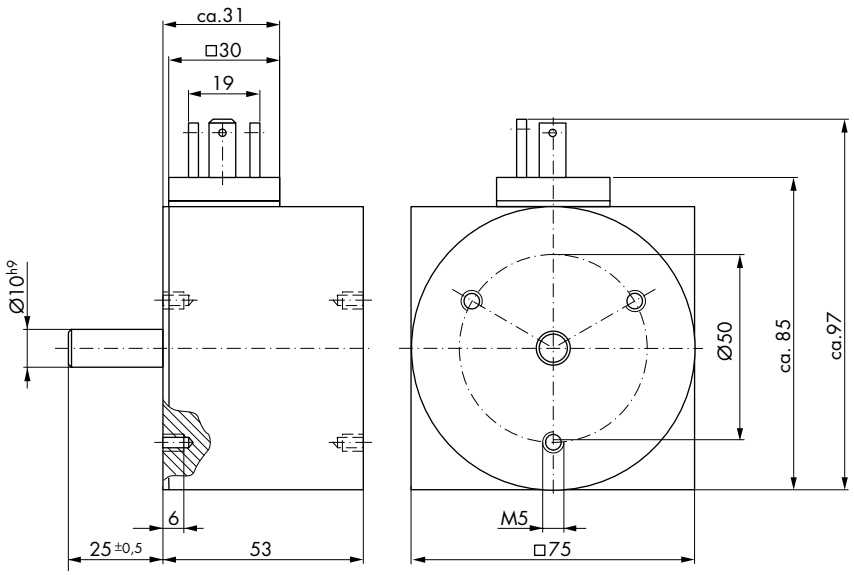
Weight: appr. 2000 g

Dyn. moment of inertia (rotational mass): appr. $90 \cdot 10^{-6}$ kg m²

Time constant: appr. 10–50 ms

All solenoids with M_A > 9.5 Ncm are available with spring return, with a rating of M_R = 8.0 Ncm approximately.

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



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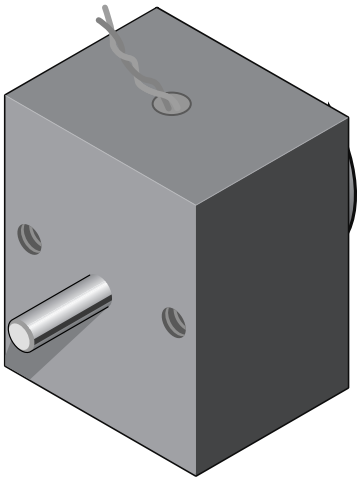
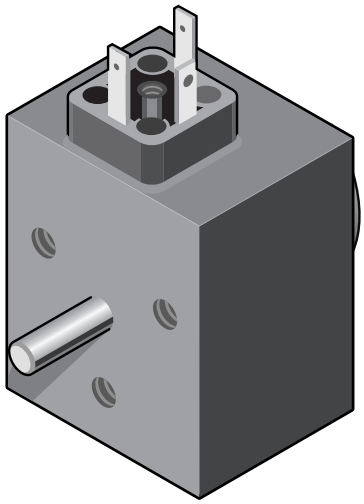
E7 Series Ordering Information

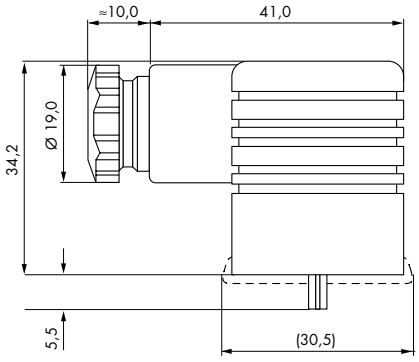
E	7	4	-LOL-	- N -	24 V DC	100 % ED	Order specifications
E							Rotary solenoid
	7						
							Angular travel
		2					25°
		3					35°
		4					45°
		6					65°
		9					95°
			-LOL-				Shaft design
							Coil terminals
				F			Flying leads (20 cm standard length)
				N			Terminal box[2]
							Nominal voltage
					24		Standard voltage
					205		(connected to 230 V AC with Si-bridge rectifier)
						100 % ED	Perm. duty cycle under air cooled conditions (LK)

[2] Suits push-on connector 6.3 DIN 46247 and plug-in socket Z 801.





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



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

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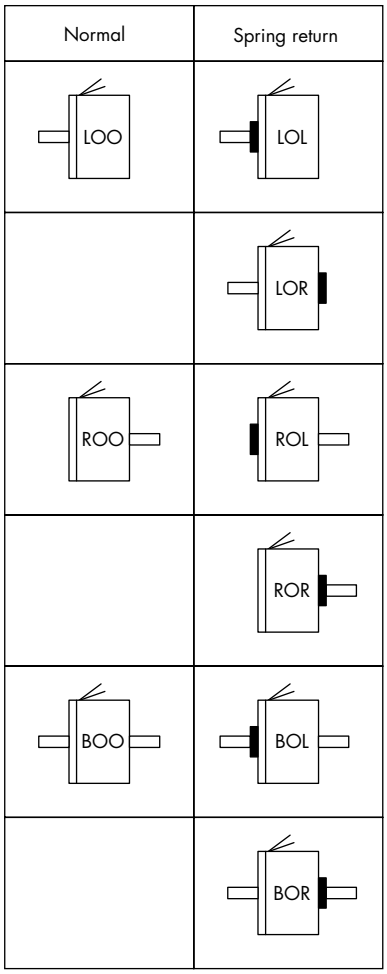
E7 Series Shaft & Rotation Options



Shaft designs

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

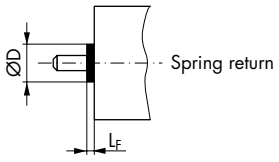
1. letter
Direction of rotation (facing the output shaft)
L anti-clockwise rotation
R clockwise rotation
B shaft extensions both ends

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

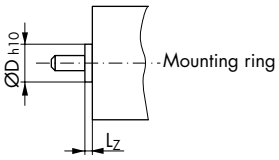
3. letter
Return spring – the torque exerted by the spring is to be subtracted from the torque values given in the data sheets
L on the anti-clockwise shaft end
R on the clockwise shaft end
O no return spring fitted
B both sides

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 E7
Ø D	32,0
L_F	8,0
Ø D_{h10}	28,0
L_Z	4,5