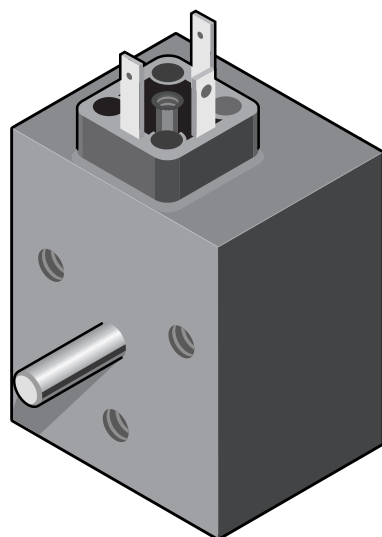


E9 Series Rotary Solenoid

Voltage rating	V DC	24							205							V DC	Voltage rating
ED* LK	%	100	70	40	25	15	10		100	60	35	25	10	6		%	ED* LK
Current rating	A	1,75	2,80	4,45	7,05	13,30	16,50		0,25	0,39	0,62	0,81	1,95	3,15		A	Current rating
Nominal resistance	Ω	13,80	8,60	5,40	3,40	1,80	1,45		816	533	329	252	105	65		Ω	Nominal resistance
E 92, 25°	MA Ncm	140	180	230	300	395	430		145	195	250	280	420	480		Ncm	MA E 92, 25°
	ME Ncm	220	260	305	355	420	450		225	270	320	345	440	490		Ncm	ME E 92, 25°
E 93, 35°	MA Ncm	95	140	190	280	345	380		105	145	220	245	370	440		Ncm	MA E 93, 35°
	ME Ncm	205	240	280	320	360	360		210	250	285	315	360	370		Ncm	ME E 93, 35°
E 94, 45°	MA Ncm	85	125	175	245	330	360		95	135	195	230	350	410		Ncm	MA E 94, 45°
	ME Ncm	195	230	260	285	310	315		205	240	265	280	315	320		Ncm	ME E 94, 45°
E 96, 65°	MA Ncm	35	55	80	125	220	260		40	60	90	115	245	310		Ncm	MA E 96, 65°
	ME Ncm	185	215	245	260	275	280		190	220	256	260	280	280		Ncm	ME E 96, 65°
E 99, 95°	MA Ncm	22	33	48	70	110	130		25	36	53	63	120	155		Ncm	MA E 99, 95°
	ME Ncm	130	150	165	175	185	190		135	155	175	175	185	190		Ncm	ME E 99, 95°

* By using a cooling surface $\geq 1600 \text{ cm}^2$, 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)

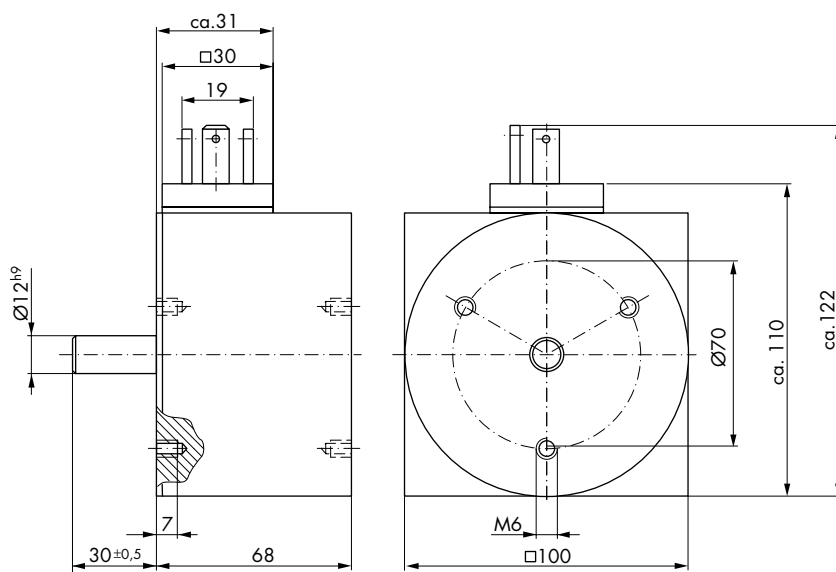


Coil terminals: - Flying leads
- Terminal box (6.3 DIN 46247)
Weight: appr. 4500 g

Dyn. moment of inertia (rotational mass): appr. $150 \cdot 10^{-6} \text{ kg m}^2$
Time constant: appr. 15–80 ms

All solenoids with MA > 18.0 Ncm are available with spring return, with a rating of MR = 15.0 Ncm approximately.

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



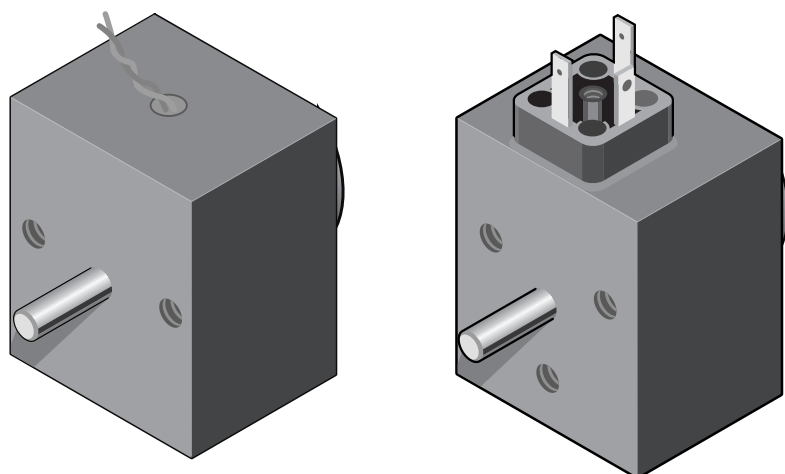
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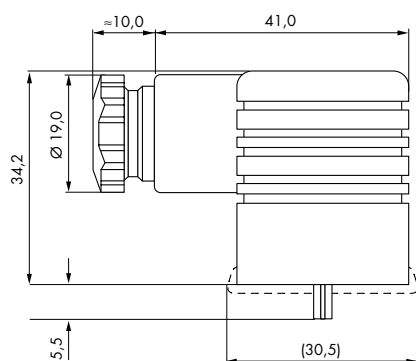
E9 Series Ordering Information

E	9	4	-LOL-	- N -	24 V DC	100 % ED	Order specifications
E							Rotary solenoid
	9						
							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 Z801.



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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E9 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 -

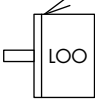
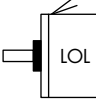
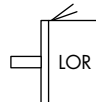
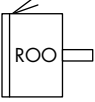
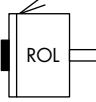
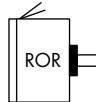
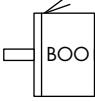
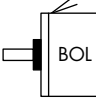
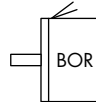
Example 2

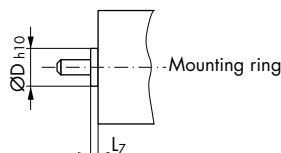
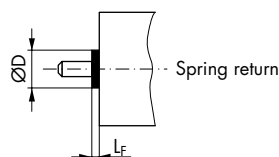
shaft extensions on both ends, return spring on anti-clockwise rotation end

BOL -

Spring return arrangement
(with protection cap)

Mounting ring

Normal	Spring return
	
	
	
	
	
	



Dimensions in mm	Solenoid size
	E9
Ø D	32,0
L _F	8,0
Ø D _{h10}	28,0
L _Z	4,5

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