

# MAGNETIC PARTICLE

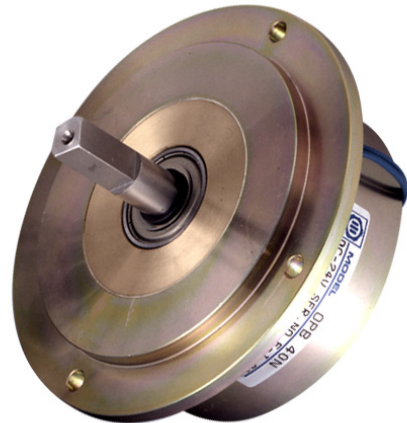
## CLUTCHES & BRAKES

SG Transmission, 20 Longfield Road, South Church Enterprise Park, Bishop Auckland, County Durham, UK, DL14 6XB  
Tel: +44 (0)1388 770 360 Fax: +44 (0)1388 779 197 sales@sgtransmission.com www.sgtransmission.com



**SG Transmission**

Electromagnetic Clutch & Brake Solutions



## Features

### Fast Response

The OP series has been designed to provide fast response. Response rates can be further quickened through overexcitation circuits.

### Stable Torque

The OP series produces consistent and repeatable torque. Torque is independent of speed and proportional to voltage applied to the field.

### Long Life

The OP series sturdy construction and precise formulation of the magnetic particles combine to provide extended life.

### Slip Capacity

OP series clutches and brakes are designed to deliver high performance under constant slip conditions.

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## CLUTCH (SERIES 51-OPC)



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Fig 1

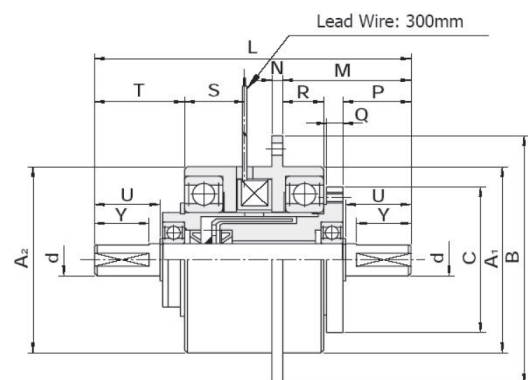
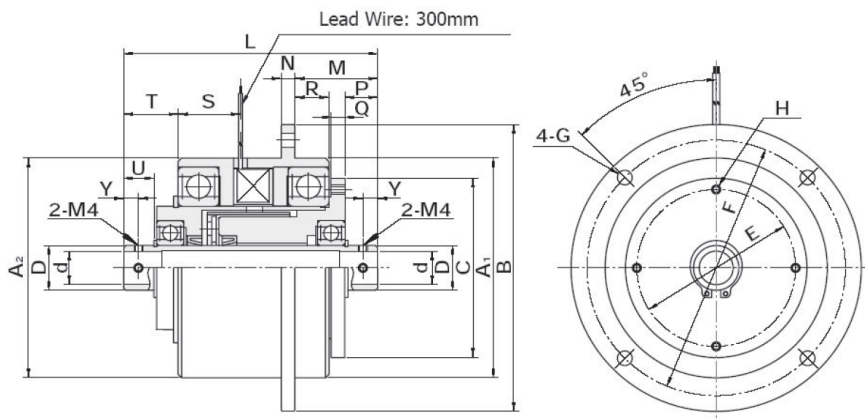


Fig 2



Model	Figure 1			Figure 2	
	51-OPC 5	51-OPC 10	51-OPC 20	51-OPC 40	51-OPC 80
<b>Torque Range (Nm)</b>	0.50	1.0	2.0	4.0	8.0
<b>Wattage (DC24V) (W)</b>	12	14	18	22	33
<b>Moment of Inertia J (KGCM2)</b>	<b>Input</b>	0.15	0.26	0.84	3.25
	<b>Output</b>	0.014	0.018	0.07	0.29
<b>Radial Dimensions (mm)</b>	<b>D1H7</b>	5	7	12	-
	<b>t</b>	4.5	6.5	11.5	-
	<b>D2H7</b>	-	-	-	12
	<b>A1H7</b>	50	54	69	86
	<b>A2</b>	50	54	69	86
	<b>B</b>	70	76	92	112
	<b>CH7</b>	40	42	54	70
	<b>D</b>	-	-	-	20
	<b>E</b>	30	34	46	60
	<b>F</b>	60	66	82	100
	<b>G</b>	4.5	4.5	4.5	5.5
	<b>H</b>	3 - M4	3 - M4	4 - M4	4 - M4
	<b>L</b>	77	83	116	97
	<b>M</b>	25	27	47	32
<b>Axial Dimensions (mm)</b>	<b>N</b>	4	4	4	5
	<b>P</b>	11	13	25	10
	<b>Q</b>	5	5	6	6
	<b>R</b>	8.5	8.5	15	15
	<b>S</b>	26	18	24	28
	<b>T</b>	13.5	15.5	33	21
	<b>U</b>	10.5	12.2	24	8.8
	<b>Y</b>	9	10	20	4
	<b>Weight (lbs)</b>	1.5	1.8	2.8	5.3

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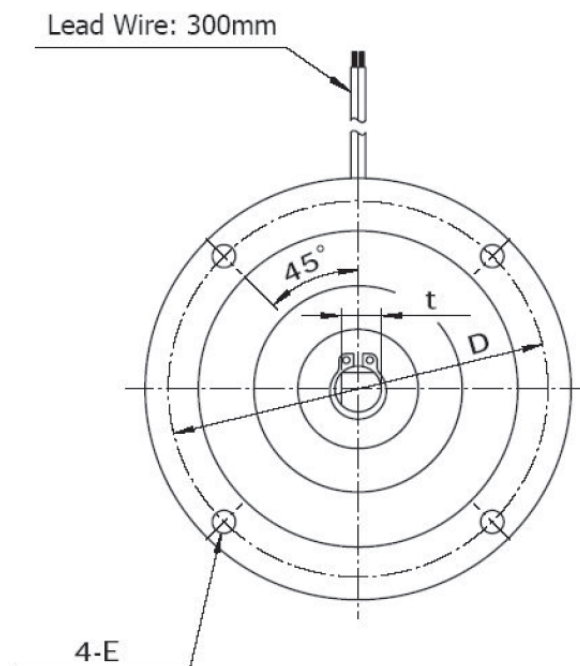
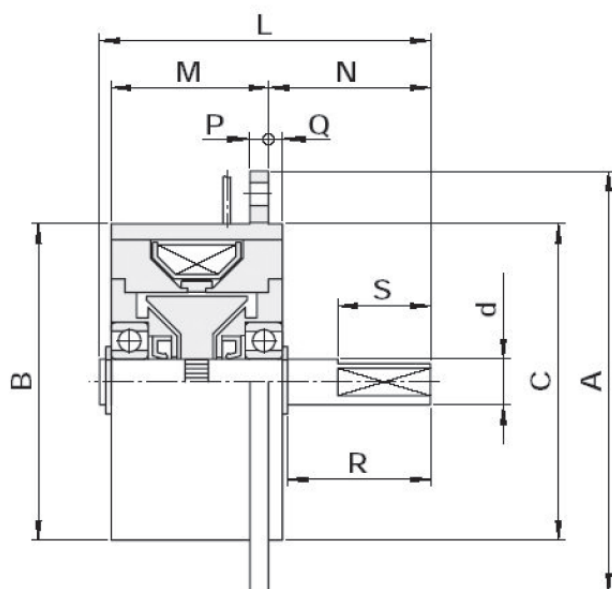
## BRAKE (SERIES 52-OPB-N)



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Model	52-OPB	52-OPB 10	52-OPB 20	52-OPB 40	52-OPB 80	
<b>Torque Range (Nm)</b>	0.5	1.0	2.0	4.0	8.0	
<b>Wattage (DC24V) (W)</b>	12	14	18	22	33	
<b>Moment of Inertia J (KGC/M<sup>2</sup>)</b>	0.15	0.26	0.84	3.25	5.25	
<b>Radial Dimensions (mm)</b>	<b>DG7</b>	6	7	10	12	15
	<b>t</b>	5.5	6.5	9	10	13
	<b>A</b>	65	75	92	112	128
	<b>B</b>	46	56	69	86	100
	<b>CH9</b>	43	54	69	86	98
	<b>D</b>	56	66	82	100	114
<b>Axial Dimensions (mm)</b>	<b>E</b>	4.5	4.5	4.5	5.5	6.5
	<b>L</b>	56	61	71.5	79	95
	<b>M</b>	27.5	33	34	36	42
	<b>N</b>	25.5	25.8	35	40	50
	<b>P</b>	3	4	4	5	6
	<b>Q</b>	2.5	3	3	5	6
	<b>R</b>	22.3	22	31	34	43
	<b>S</b>	12	12	20	20	20
<b>Weight (lbs)</b>	0.9	1.5	2.2	4.0	6.6	

# PERFORMANCE TABLE



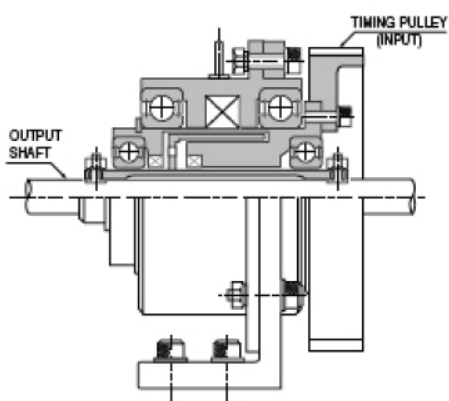
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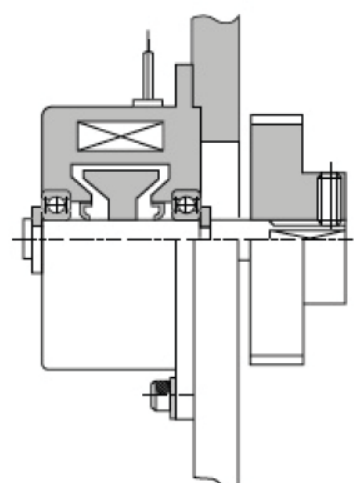
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Model	Rated Torque (Nm)	Coil Resistance (20dec C Ohm)	Drag Torque (Nm)	Allowable continuous heat Dissipation (W)	Max Speed (r/min)
51-OPC 5	0.5	50	Max 0.12	15	1800
51-OPC 10	1.0	41	Max 0.23	25	1800
51-OPC 20	2.0	32	Max 0.47	45	1800
51-OPC 40	4.0	26	Max 0.95	70	1800
51-OPC 80	8.0	17.6	Max 1.91	90	1800
52-OPB 5	0.5	90	Max 0.12	25	1800
52-OPB 10	1.0	65	Max 0.23	35	1800
52-OPB 20	2.0	65	Max 0.47	50	1800
52-OPB 40	4.0	65	Max 0.95	60	1800
52-OPB 80	8.0	65	Max 1.91	80	1800

## Typical Installation



Model 51-OPC Clutch



Model 52-OPB Brake