Motor Potentiometer MP40

The basis of the series MP40 is at the shaft end a gear motor and on the signal side a precision potentiometer which are coupled by a slip coupling. The series MP offers single-turn and multi-turn potentiometers which are available both in precision wire, hybrid and conductive plastic versions.
The output shaft is the potentiometer shaft.

Option sensor output: 0...10 Volt or 0/4...20 mA.

Motor overview

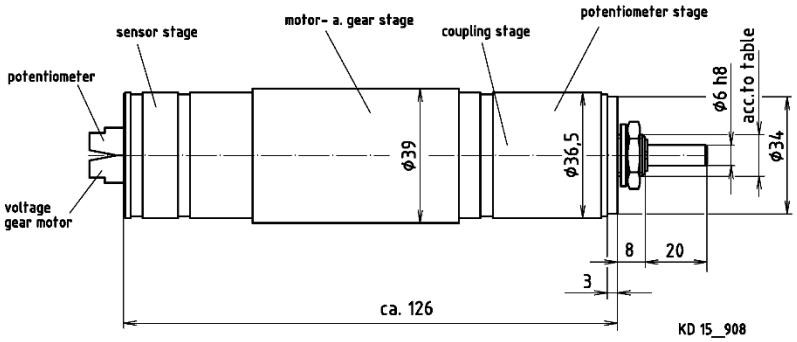
Nominal voltage (Volt)	6	12	24
Connection resistance (Ω)	1,94	8,71	36,30
Output power (W)	4,55	4,05	3,88
Idle speed (rpm)	8.200	7.800	7.800
No-load current (for shafts Ø 2,0 mm) (A)	0,029	0,014	0,007
Torque constant (mNm/A)	6,92	14,50	29,10
Gradient of n-M-characteristic (rpm/mNm)	387	394	411

Potentiometer overview

Available with potentiometer	Central fixing	Bearing	Available with sensor output signal	Mechanical rotation
DP18	M10x0,75	Sliding bearing	---	330°
DP113	M12x1	Ball bearing	x	345°
DMG23	M10x0,75	Sliding bearing	x	1080°/1800°/3600°
DP18 D2	M10x0,75	Sliding bearing	---	330°
DP113 D2	M12x1	Ball bearing	---	345°
DMG23 D2	M10x0,75	Sliding bearing	---	1080°/1800°/3600°

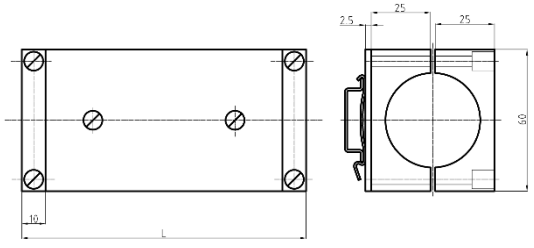
Selection of actuating times (at 4000 rpm)

Test voltage for actuating time is 50 % of nominal voltage.

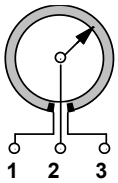


Actuating time (sec) for rotation angle *1

	1-turn Potentiometer *1 360°	3-turn Potentiometer *1 1080°	5-turn Potentiometer *1 1800°	10-turn Potentiometer *1 3600°
1.	0,11	0,32	0,54	1,08
2.	0,30	0,90	1,50	3,00
3.	0,48	1,44	2,40	4,80
4.	0,06	0,17	0,28	0,56
5.	0,15	0,44	0,73	1,46
6.	0,21	0,63	1,05	2,10
7.	0,35	1,04	1,73	3,45
8.	0,65	1,89	3,23	6,45
9.	0,99	2,97	4,95	9,90
10.	1,29	3,87	6,45	12,90
11.	2,01	6,03	10,05	20,10
12.	2,39	7,16	11,93	23,85
13.	3,69	11,07	18,45	36,90
14.	6,23	18,68	31,13	62,25
15.	8,88	26,64	44,40	88,80
16.	14,84	44,51	74,18	148,35
17.	22,89	68,67	114,45	228,90



Option top-hat rail



Pin	Function	Pin	Function
1	Resistor	4	---
2	Slider	5	+24 VDC
3	Resistor	6	-24 VDC

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