

Electromagnetic Single-Face Brake

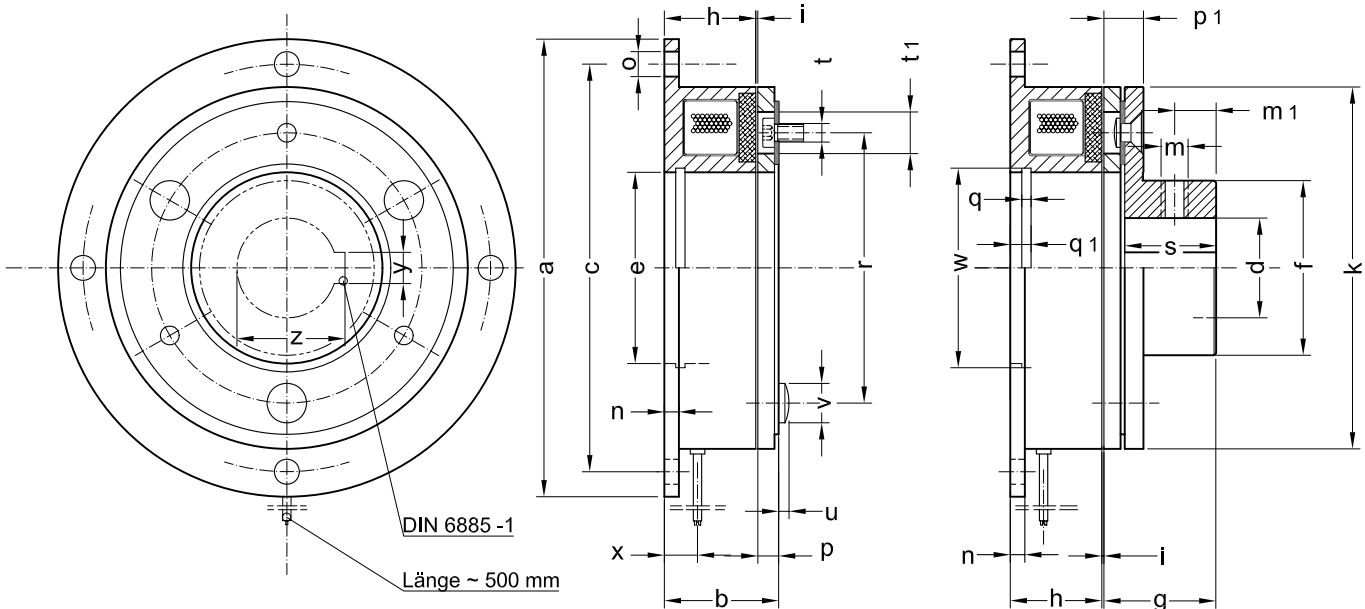
Flange mounted brake with diaphragm plate to be connected to a shaft mounted driver.

For dry operation, coil voltage 24 V DC

- ◆ Friction locked torque connection without backlash.
- ◆ With diaphragm made of hardened spring steel.
- ◆ Self-acting adjustment by magnetic flux permeated friction faces.
- ◆ No idling torque because of complete disconnection when disengaged.
- ◆ Applicable for horizontal and vertical mounting.

When current is applied the armature plate is pulled against the magnet body resulting in a friction locked brake torque connection. When the current is switched off, the armature plate will be completely separated from the magnet body by the elastic force of the diaphragm.

Executions: MCB without driver and diaphragm fastening screws.
MCB with driver as shown in the dimension drawing.



Data and Dimensions		MCB 0,3	MCB 0,7	MCB 1,5	MCB 3	MCB 6,5	MCB 13	MCB 25	MCB 50
Dynamic brake torque 1)	Nm	3	7	15	30	65	130	250	500
Friction work per engagement	kJ	1	1,5	3	5	7	12	20	30
Thermal capacity	W	40	60	80	115	160	230	340	480
Speed maximum	min ⁻¹	6500	6000	5000	4500	4000	3000	2500	2000
Switch-on time - to 90 % nominal torque	ms	20	25	40	45	50	85	120	160
Switch-off time - to 10 % nominal torque	ms	10	15	20	50	85	110	150	200
Mass moment of inertia - armature plate	10 ⁻³ kgm ²	0,01	0,045	0,12	0,5	1,3	4,9	14	36
Mass moment of inertia - armature + driver	10 ⁻³ kgm ²	0,015	0,063	0,17	0,70	1,8	6,5	19	48
Coil power consumption at 20° C	W	10	12	16	21	28	38	50	65
Mass (weight) inclusive driver	kg	0,25	0,3	0,6	1,1	2	4	7	14
Ø a	mm	65	80	100	125	150	190	230	290
b	mm	25,2	22	24,5	28,2	31,2	35,2	41,55	48,4
Ø c	mm	58	72	90	112	137	175	215	270
Ø d max. H7	mm	15	18	22	30	35	45	60	70
Ø e H8	mm	26	35	42	52	62	80	100	125
Ø f	mm	24	32	38	48	58	73	92	112
g	mm	15	18,8	24,3	31	36,9	46,9	59,15	68
h	mm	22	18	20	22	24	26	30	35
i airgap	mm	0,2	0,2	0,2	0,2	0,3	0,3	0,4	0,4
Ø k	mm	50	63	80	100	125	160	200	250
m / m1	mm	1 x M5 / 5	1 x M6 / 6	1 x M6 / 8	1 x M8 / 10	2 x M10 / 12	2 x M10 / 15	2 x M12 / 19	2 x M12 / 22
n	mm	2	3	3	4	4	5	5	6
Ø o	mm	3,4	4,5	5,5	6,6	6,6	9	9	11
p	mm	3	3,8	4,3	6	6,9	8,9	11,15	13
p1	mm	6	7,3	8,3	11	12,9	15,9	20,2	24
q1	mm	3,2	3,5	4,25	5	5,5	6	7	8
Ø r	mm	38	50	60	76	95	120	158	210
s	mm	12	15	20	25	30	38	48	55
Ø t / Ø t1	mm	3 x 3,1 / 6,5	3 x 4,1 / 10	3 x 4,1 / 11	3 x 5,1 / 11,5	3 x 6,1 / 15	3 x 8,1 / 21	3 x 10,1 / 25	4 x 12,1 / 28
Ø v / u	mm	5,5 / 1,5	8 / 2	8 / 2	10 / 2,5	11,5 / 3	14,5 / 4	17,5 / 4,5	20,5 / 5
Ø w x q	mm	27 x 1,3	36 x 1,6	43,5 x 1,85	53,8 x 2,15	63,8 x 2,15	82,1 x 2,65	102,1 x 3,15	127,4 x 4,15
x	mm	7,5	6	7	8	9	11	12	15
y x z at d max	mm	5 x 17,3	6 x 20,8	6 x 24,8	8 x 33,3	10 x 38,3	14 x 48,8	18 x 64,4	20 x 74,9

1) Static brake torque ~ dynamic brake torque