

## Electromagnetic Stationary Field Tooth Clutch

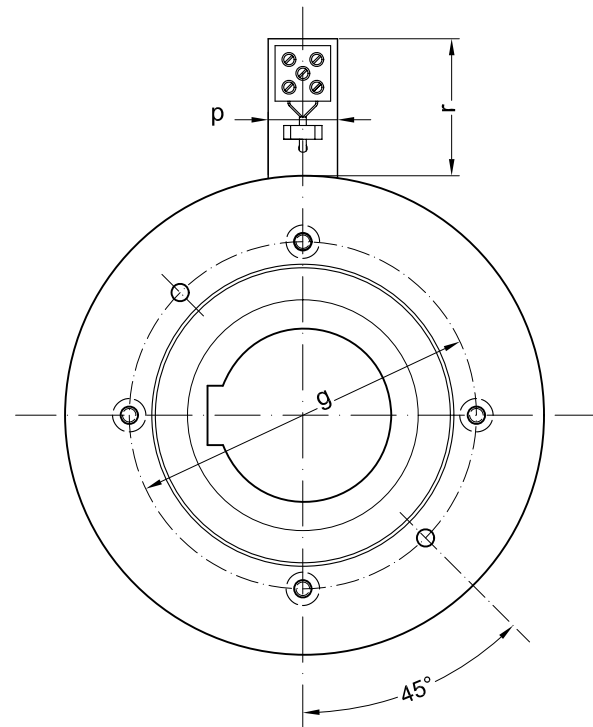
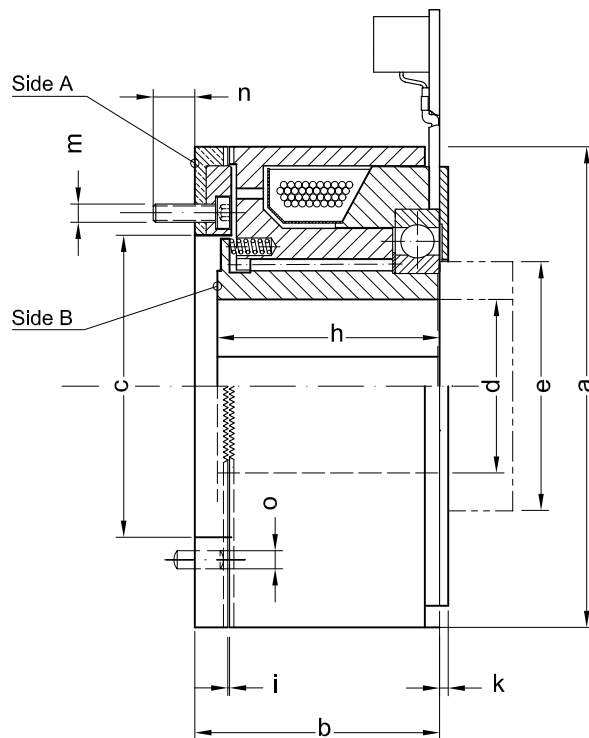
Clutch with driver plate to be attached to the free wheeling gear part.

For oil and dry operation, coil voltage 24 V DC

- ◆ With point shaped backlash-free tooth profile.
- ◆ Actuated face toothed clutch body guided on splined clutch hub.
- ◆ Version 1 - tooth angle 55° for disengagement under torque load.
- ◆ Version 2 - tooth angle 35° for higher torque transmission, if disengagement without torque load takes place.
- ◆ Vertical mounting, only when ordered with application guidelines.

Engagement of tooth clutches is made at standstill or synchronous speed. Advantage is given by the possible transmission of high torques in relation to the clutch sizes and a complete disconnection of the drive transmission, what gives possible use in high speed applications.

In modified design the clutch can be supplied with a proximity switch to indicate the clutch position and / or with indexing pins for single or multiple position engagement.



Data and Dimensions			FZV 8	FZV 16	FZV 32	FZV 63	FZV 125	FZV 250	FZV 500	FZV 1000	FZV 2000	FZV 5000	
Static torque continuous (static) torque load	Version	1	Nm	40	80	160	320	630	1250	2500	5000	10000	25000
		2	Nm	80	160	320	630	1250	2500	5000	10000	25000	50000
Static torque fluctuating (dynamic) torque load	Version	1	Nm	25	50	100	200	400	800	1600	3150	6300	16000
		2	Nm	50	100	200	400	800	1600	3150	6300	12500	31500
Speed maximum		min <sup>-1</sup>	6500	6000	5500	4700	4000	3200	2500	2000	1500	1200	
Coil power consumption at 20 °C		W	30	45	50	60	85	100	125	140	175	280	
Mass moment of inertia side A		10 <sup>-3</sup> kgm <sup>2</sup>	0,20	0,38	0,75	1,5	4,0	11,3	27,5	85	450	2400	
Mass moment of inertia side B		10 <sup>-3</sup> kgm <sup>2</sup>	0,5	1,0	3,0	6,3	17,5	47,5	123	375	2125	8500	
Mass (weight)		kg	1,5	2,3	3,3	5,2	8,5	17	32	65	150	450	
∅ a		mm	82	95	110	127	151	190	230	290	390	540	
b		mm	41	48	56	65	78	95	117	145	190	292	
∅ c H7		mm	47	62	75	80	95	115	140	180	225	290	
∅ d H7		mm	25	35	45	50	60	75	90	120	150	180	
∅ e		mm	40	50	62	68	80	100	124	153	200	220	
∅ g		mm	57	72	87	93	110	133	162	206	290	380	
h		mm	37	42,5	50	59	71	88	108	133	170	280	
i airgap (clutch disengaged)		mm	0,20-0,30	0,25-0,35	0,25-0,35	0,25-0,35	0,30-0,40	0,30-0,40	0,35-0,45	0,40-0,50	0,50-0,60	0,60-0,70	
k		mm	3	3	3	4	5	6	8	10	14	20	
m		mm	M4	M4	M5	M6	M6	M8	M10	M12	M16	M20	
n		mm	8	9	9	12	13	15	19	22	36	45	
o rough bored / for dowel		mm	4 / 5	5 / 6	5 / 6	7 / 8	9 / 10	13 / 14	14 / 16	18 / 20	18 / 20	23 / 25	
p		mm	22	22	22	22	22	30	30	30	30	100	
r		mm	65	65	65	59	57	95	90	85	65	170	
Number of teeth at 55°angle		mm	172	170	203	178	212	202	244	164	220	-	
Number of teeth at 35°angle		mm	194	188	217	212	244	244	296	236	-	-	
Keyway DIN 6885 - 2		-	1	1	1	2	2	2	2	2	2	2	