

Electromagnetic Slip-Ring Tooth Clutch

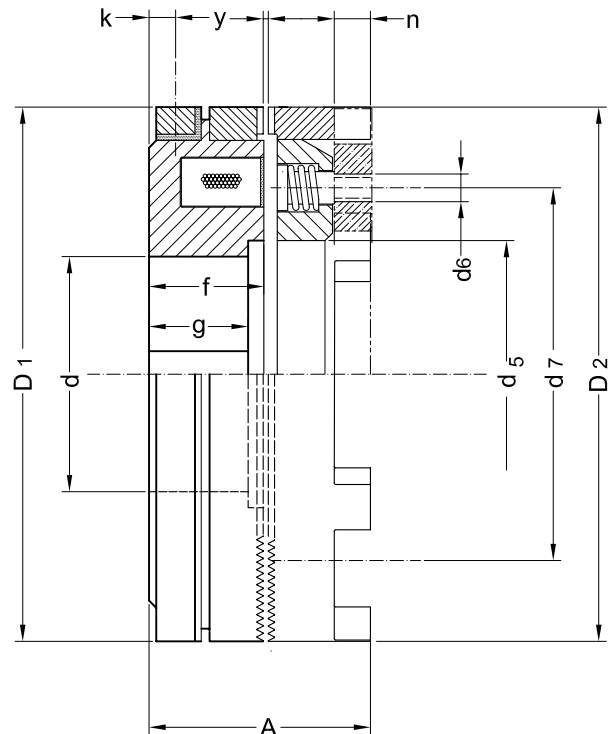
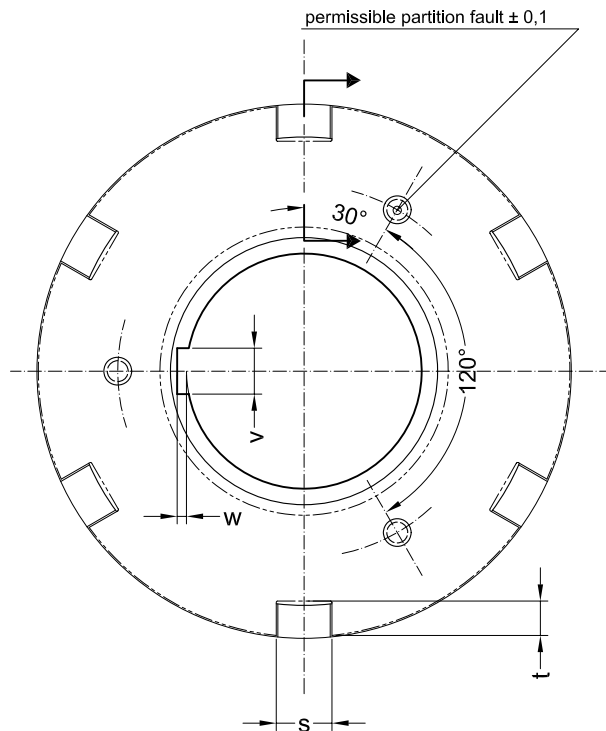
Basic construction with rigid, one-piece armature plate.

For oil and dry operation, coil voltage 24 V DC

- ◆ With point shaped backlash-free tooth profile.
- ◆ Armature plate with square jaws guided on connector plate.
- ◆ Suited for disengagement under torque load.
- ◆ Extra accessory: Connector plate as shown per drawing.
- ◆ Vertical mounting only when ordered with application guidelines.

Heid tooth clutches type FZK-S are comparable regarding technical data and dimensions with tooth clutches of ZF Friedrichshafen AG listed in the table.

Most of the clutches FZK-S documented in the data sheet can be amended according to order specification and so brought into line with the version to be replaced.



Data and Dimensions		MZK	MZK	MZK	MZK	MZK	MZK	MZK	MZK	MZK	MZK	MZK	MZK
		1S	2S	5S	10S	25S	50S1	50S2	100S	200S	300S	400S	600S
comparable to ZF Type:		EK 0,25 Z	EK 0,5 Z	EK 1 Z	EK 2 dZ	EK 5 dZ	EK 10 dZ	EK 10 eZ	EK 20 dZ	EK 40 dZ	EK 60 dZ	EK 80 Z	EK 120 eZ
Static torque	Nm	10	20	50	100	250	500	500	1000	2000	3000	4000	6000
Speed at 10 m per sec. 1)	min ⁻¹	3150	2700	2300	2200	1650	1400	1350	1150	1150	950	750	700
Engagement time	ms	15	20	22	25	30	40	40	65	75	80	80	90
Disengagement time	ms	35	46	46	58	80	102	102	115	190	250	270	335
Coil power consumption at 20 °C	W	7,5	12	24	28	48	57	58	76	83	96	100	127
Mass moment of inertia side A	10 ⁻³ kgm ²	0,16	0,31	0,80	1,38	3,45	6,75	8,54	19,25	41,0	55,0	98,5	154,8
Mass moment of inertia side B	10 ⁻³ kgm ²	0,06	0,09	0,21	0,50	1,23	3,08	3,68	8,75	21,25	31,75	54,75	71,5
Mass (weight) ~	kg	0,32	0,48	0,87	1,16	1,98	3,15	3,45	6,20	9,61	11,72	17,56	19,90
A	mm	25	27,5	37	38	43	50	51	60	68	73	81	84
Ø D1 / D2	mm	60	70	82	95	114	134	140	166	195	210	240	258
Ø d H7	mm	12	15	20	28	35	40	50	45	65	70	75	85
Ø d5 + 0,2	mm	23	26	35	45	53	63	70	80	89	100	112	134
d6	mm	M3	M3	M4	M4	M4	M5	M5	M6	M6	M6	M6	M6
Ø d7 ± 0,1	mm	40	45	55	65	80	100	100	120	150	150	150	170
f	mm	15,5	17	23	23	26	29	30	35	38,5	38	42	46
g	mm	12	14	23	20	23	26	26	30	33,5	35	37	42
k	mm	3,5	3,5	5,5	5,5	6	7	7	7	7	8,5	8,5	8,5
n	mm	3,5	4	6	6	7	8	8	9,5	12	14	14,5	16,5
s + 0,05 -> 0,1	mm	6	7	8	8	10	10	10	12	15	18	20	20
t	mm	4	5	7,5	7,5	8	9	9	11	12	12	13	15
v x w	mm	4 x 1,1	5 x 1,3	6 x 1,7	8 x 1,7	10 x 2,1	12 x 2,1	14 x 2,6	14 x 2,6	18 x 3,1	20 x 4,1	20 x 4,1	22 x 4,1
Keyways number / position	mm	1 / -	1 / -	1 / -	1 / -	1 / -	2 / 180°	2 / 180°	2 / 180°	4 / 90°	4 / 90°	4 / 90°	4 / 90°
y	mm	0,3 + 0,2	0,3 + 0,2	0,3 + 0,2	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3	0,4 + 0,3

1) Higher speeds when fitting a second brush.