

## Electromagnetic Stationary Field Tooth Clutch

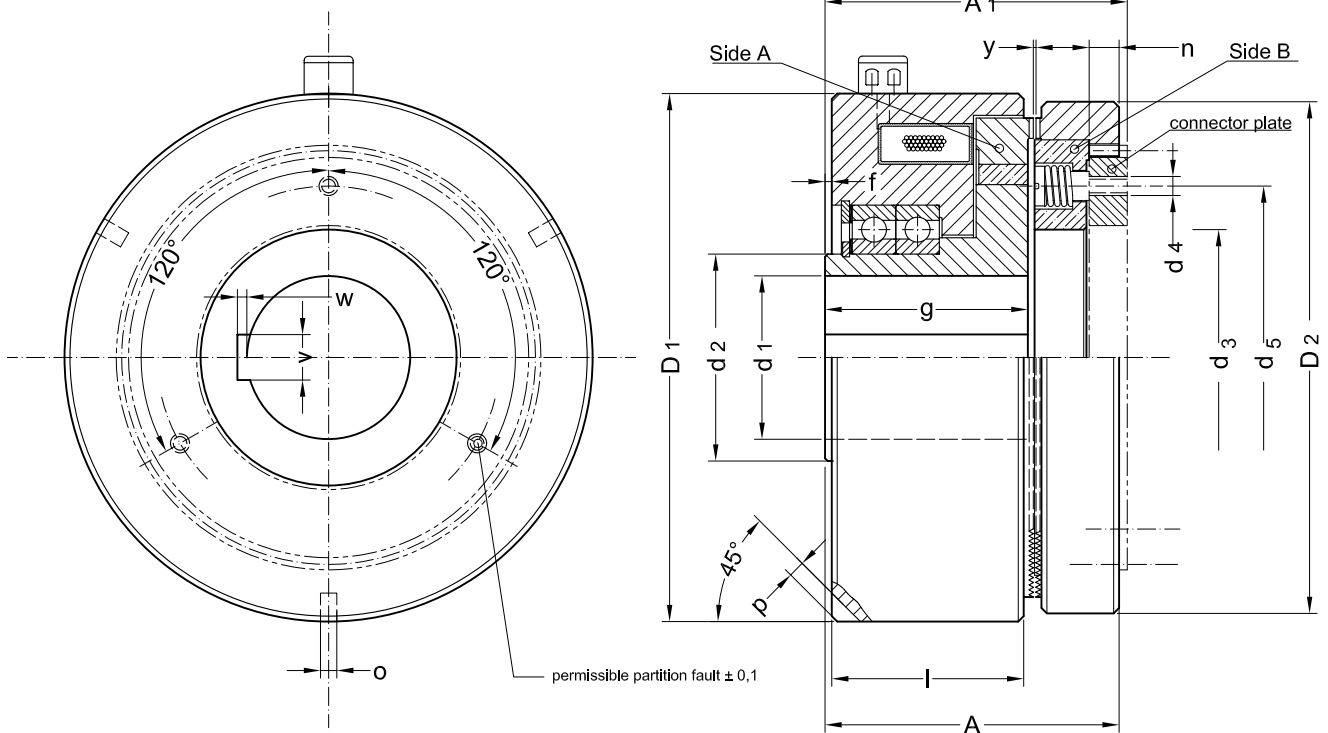
Basic construction with rigid, one-piece armature plate.

For oil and dry operation, coil voltage 24 V DC

- ◆ With point shaped backlash-free tooth profile.
- ◆ With armature plate guided on toothed 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 FZZ-S are comparable regarding technical data and dimensions with tooth clutches of ZF Friedrichshafen AG listed in the table.

Most of the clutches FZZ-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		FZZ	FZZ	FZZ	FZZ	FZZ	FZZ	FZZ	FZZ	
		10S	20S	30S	60S	140S	200S	300S	400S	600S
comparable to ZF Type:		EKR 1 ZS	EKR 2 ZS	EKR 5 ZS	EKR 10 ZS	EKR 20 ZS	EKR 40 ZS	EKR 60 ZS	EKR 80 ZS	EKR 120 ZS
Static torque	Nm	100	200	300	600	1400	2000	3000	4000	6000
speed at oil operation	min <sup>-1</sup>	4500	4000	3800	3800	3500	3500	3000	3000	2500
speed at dry operation	min <sup>-1</sup>	2200	2000	2000	2000	1800	1800	1500	1500	1500
Engagement time	ms	20	30	40	60	70	90	100	120	130
Disengagement time	ms	80	90	110	165	275	440	550	800	1100
Coil power consumption at 20 °C	W	36	48	58	87	110	140	180	190	230
Mass moment of inertia side A	10 <sup>-3</sup> kgm <sup>2</sup>	0,20	0,46	1,15	2,6	6,3	18,7	27	51	76
Mass moment of inertia side B	10 <sup>-3</sup> kgm <sup>2</sup>	0,35	0,72	1,6	3,5	9,5	21	33,4	65,7	79,5
Mass (weight) ~	kg	1,4	2	3,3	5,7	10	16	20,5	30	38
A	mm	54	59	66	80	90	96	111	119	126
A 1	mm	57	62	69	83	93,5	99	113	121,5	128,5
D 1	mm	82	95	114	134	166	195	210	240	258
D 2	mm	80	93	109	127	156	195	210	240	258
Ø d 1 H7	mm	25	35	38	46	60	65	68	78	85
Ø d 2	mm	35	45	50	60	75	80	85	95	105
Ø d 3	mm	38	46	56	62	79	100	105	115	130
d 4	mm	M4	M4	M4	M5	M6	M6	M6	M6	M6
Ø d 5 ± 0,1	mm	52	62	70	85	108	150	150	150	170
f	mm	1	1	1	1	1	2	2	2	2
g -0,2	mm	37	41	44	54	61	65	74	77	85
l	mm	36,5	40	43	53	60	51	59	61	68
n	mm	6	6	7	8	9,5	12	14	14,5	16,5
o +0,2 / p	mm	6 / 3	6 / 4	8 / 4	8 / 5	8 / 6	12 / 8	12 / 8	12 / 10	12 / 10
v x w	mm	8 x 1,7	10 x 2,1	10 x 2,1	14 x 2,6	18 x 3,1	18 x 3,1	20 x 4,1	22 x 4,1	22 x 4,1
y	mm	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
Gearing DIN 5480 pressure angle α = 30°	Numb. of teeth	-	31	36	42	51	42	36	42	46
	Modul	mm	2	2	2	2	3	5	5	5