HEID ANTRIEBSTECHNIK
Produktion & Handel GmbH

FZK-S

Electromagnetic Stationary Field Tooth Clutch

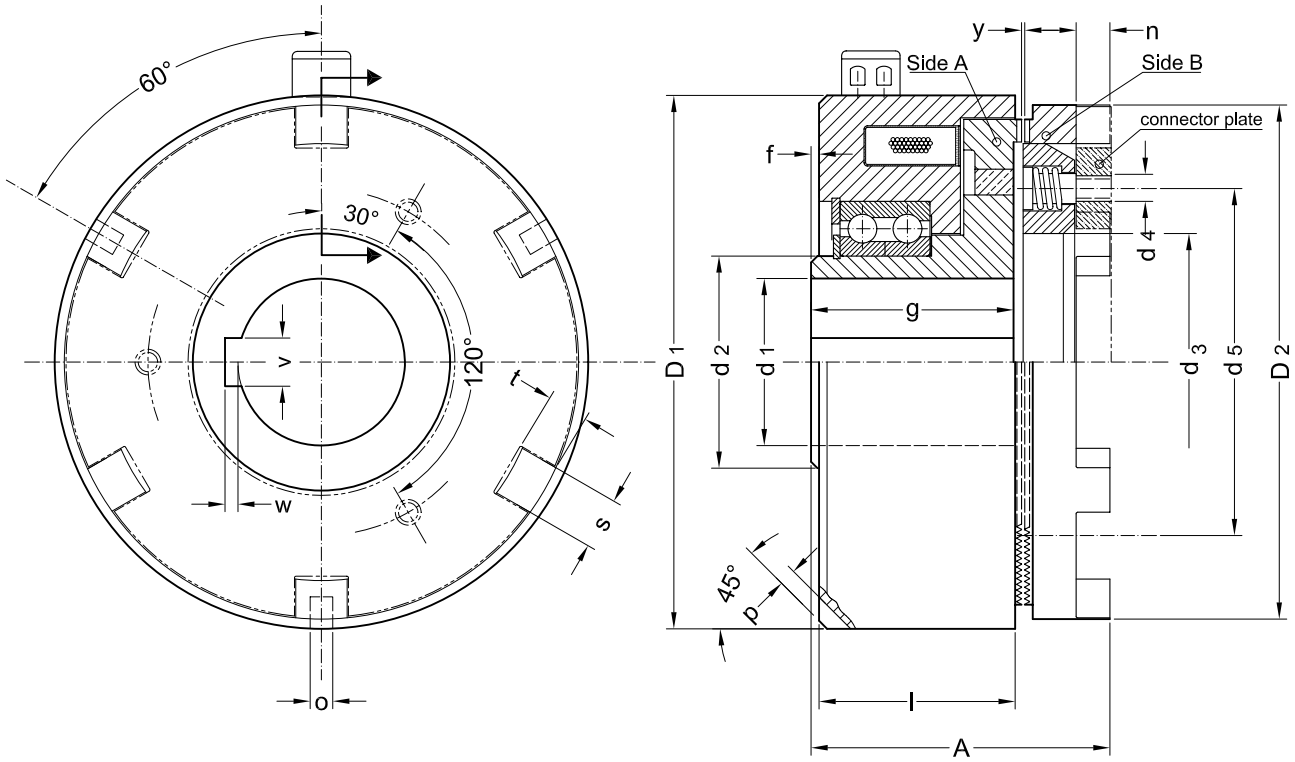
Basic construction with rigid, one-piece armature plate.

For oil and dry operation, coil voltage 24 V DC

- With point shaped backlash-free tooth profile.
- 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		FZK 5S	FZK 10S	FZK 25S	FZK 50S	FZK 100S	FZK 200S	FZK 300S	FZK 400S	FZK 600S
comparable to ZF Type:		EKR 1 Z	EKR 2 Z	EKR 5 Z	EKR 10 Z	EKR 20 Z	EKR 40 Z	EKR 60 Z	EKR 80 Z	EKR 120 Z
Static torque	Nm	50	100	250	500	1000	2000	3000	4000	6000
speed at oil operation	min^{-1}	4500	4000	3800	3800	3500	3500	3000	3000	2500
speed at dry operation	min^{-1}	2200	2000	2000	2000	1800	1800	1500	-	-
Engagement time	ms	20	30	40	60	70	90	100	120	130
Disengagement time	ms	46	58	110	172	265	380	480	630	735
Coil power consumption at 20 °C	W	42	52	64	85	115	140	170	210	240
Mass moment of inertia side A	10^{-3} kgm²	0,20	0,46	1,15	2,6	6,3	18,7	27	51	76
Mass moment of inertia side B	10^{-3} kgm²	0,28	0,58	1,3	2,9	8,0	18,7	30,0	60,0	72,5
Mass (weight) ~	kg	1,3	1,9	3,1	5,4	9,5	15,5	19,7	29	36,5
A	mm	54	59	66	80	90	96	111	119	126
Ø D 1	mm	82	95	114	134	166	195	210	240	258
Ø D 2	mm	80	93	109	127	162	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
s +0,05 -> +0,1 / t	mm	8 / 7,5	8 / 8,5	10 / 9	10 / 10	12 / 13,5	15 / 12	18 / 12	20 / 13	20 / 15
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