

Tooth Clutches

Series 5EC-P



Series 5EC-P Sure Drive Electromagnetic Pilot-Mount Tooth Clutches

Stationary Field for Dry Operation

Series 5EC-P electromagnetic tooth clutches are designed for dry operation. When a DC voltage is applied, a magnetic field is generated, bringing the two toothed rings into mesh. This provides a positive slip free drive. The armature is spring-loaded to ensure rapid disengagement and zero drag when disengaged.

Features

- One-piece construction, eliminates costly installation setting and alignment procedures, and ensures all axial forces are contained within the clutch assembly
- Bearing mounted pilot mount, provides rigid precise location for direct attachment of power transmission components and reduces engineering required by machine builder
- 'Hirth' type drive teeth provide high torque in a compact envelope and positive drive without slip
- Stationary coil and magnet assembly allow high running speeds and simple connection to DC power supply without brushes.

Typical Applications

- Machine Tools
- Heavy Machines
- Steel Production, Processing and Machining
- Lifting Gear and Container Cranes
- Synchronization Clutches for series switching of two electric motors
- Dynamometers and Test Equipment
- Remotely Operated Equipment
- Metal and Material Handling
- Cardboard Box Machining

MODEL		5EC 025P	5EC 035P	5EC 055P	5EC 070P
Performance Data					
Rated Static Torque	Nm	50	200	800	1800
	lbf ft	37	148	590	1325
Power Consumption at 20° C	Watts	19	26	63	120
Maximum Speed	rpm	5800	4000	3000	2600
Dimensional Data (all dimensions in mm)					
Standard Bores (H7)		—	30	50	60
Keyways to I.S.O. 773			8 x 3.3	14 x 3.8	18 x 4.4
B.S. 4235:1972 Pt. 1		20	25	45	55
D.I.N. 6885:1968 Pt. 1; NFE22-175		6 x 2.8	8 x 3.3	14 x 3.8	16 x 4.3
(Bores other than standard can be obtained by special order)		15	20	40	50
		5 x 2.3	6 x 2.8	12 x 3.3	14 x 3.8
Diameters (all dimensions in mm)					
A		74	98	155	209
B		74	98	153	209
C (h8)		52	75	112	145
D		35	45	75	95
Lengths					
E		77	100	133.5	165
F		15	23	36	46
G (ref)		34.5	34.5	37.2	40
H (ref)		32	32	32	32
J		2.5	2.5	5	6.5
K		8.1	10	10	10
Fixing Holes					
Number		3	3	6	6
Size		M4	M6	M8	M10
P.C.D.		65	88	135	180
Depth		8	12	14	20
Driving Teeth					
Number of Teeth		168	192	264	288

