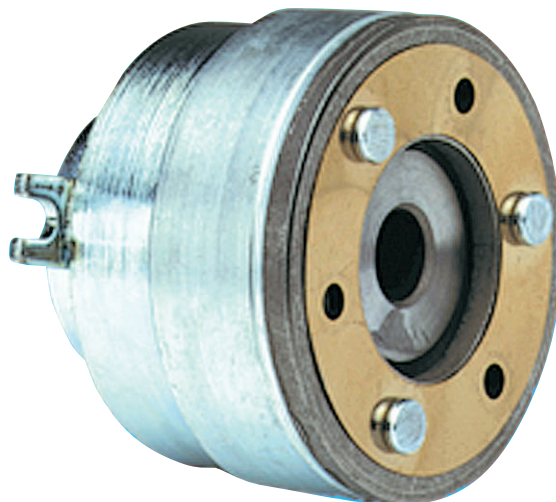


Magneta miniature clutches – bearing mounted

Type 14.100.□□.30□

0.3 to 3.6 Nm

High torque capacity
No running-in required
Maximum speed 1500 r/min
Bearing mounted coil for easy mounting
No residual torque when disengaged
Very long life
Bores 5 to 15mm



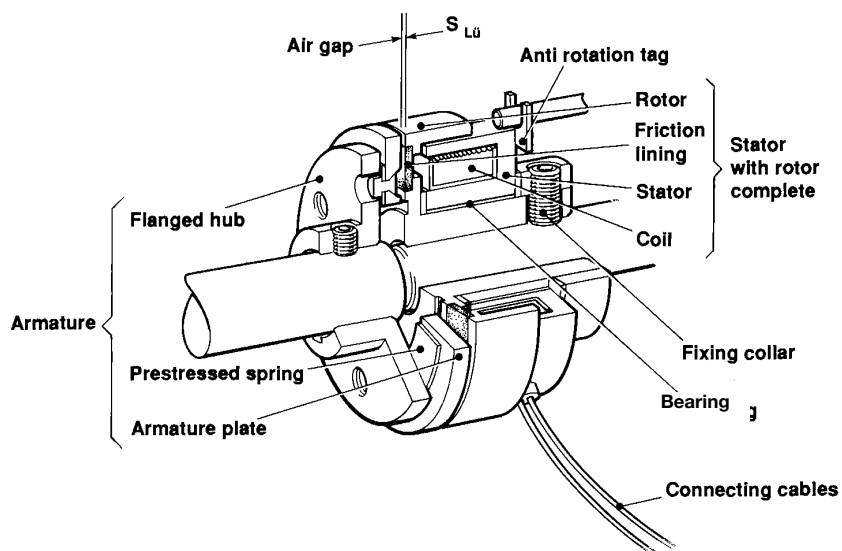
Select the assembly with type 1 armature for in-line shaft to shaft drives noting the required shaft alignment limit Δw . Select armature type 3 for direct connection of pulleys, gears or sprockets which must be bearing supported from the shaft.

Armature 1 assemblies			Armature 3 assemblies		
Type no.	Bores d, d11 H7, H9	Stockline No.	Type no.	Bore H9	Stockline No.
14.100.02.301	5	A7-94 201	14.100.01.303	5	A7-97 550
	6	A7-94 34X		6	A7-97 648
14.100.03.301	6	A7-95 53X	14.100.02.303	5	A7-97 577
14.100.04.301	8	A7-94 559	14.100.03.303	6	A7-77 263
	10	A7-95 032		8	A7-77 350
14.100.05.301	10	A7-97 76X	14.100.04.303	10	A7-99 598
	15	A7-97 849		15	A7-77 192
			14.100.05.303	15	A7-77 255

Stockline numbers in black – delivery time on request.

Operation

Bearing mounted clutches can be readily assembled on shafts without the need of mounting surfaces. The stator should be prevented from rotating by a loose fitting pin. The magnetic field generated by the coil pulls the armature plate across the air gap. Axial movement is achieved by means of a pre-stressed spring which also transmits the torque generated at the friction surface.



Ordering example

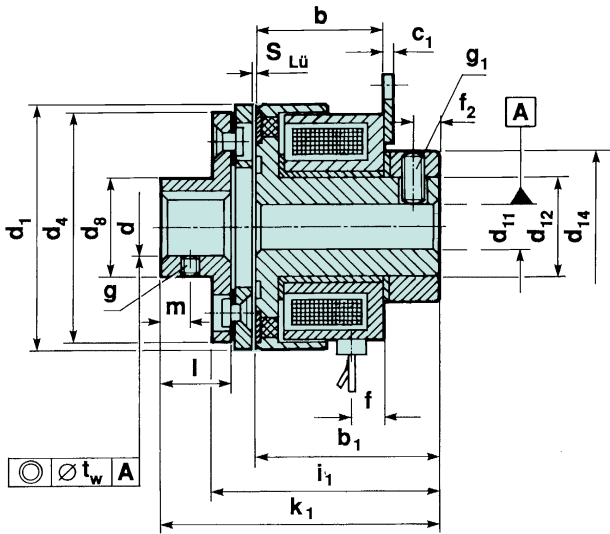
(6) off clutches type 14.100.03.303
24V, 6mm bore

Stockline No. **A7-77 263**

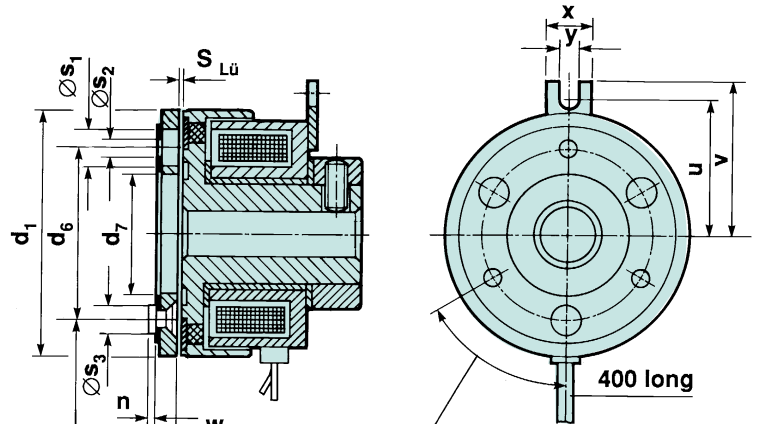
Magneta miniature clutches – bearing mounted

Type 14.100.□□.30□

Type 14.100.□□.301



Type 14.100.□□.303



Size 01, 02 = 4 x 90°
 Size 03, 04, 05 = 6 x 60°
 Armature fixing ($\varnothing s_1, s_2, s_3$)
 Keyways to BS4235

Size	Torque P		b	b ₁	c ₁	d (H7) standard	d ₁	d ₄	d ₆	d ₇	d ₈	d ₁₁ (H9) standard		d ₁₂	d ₁₄	f	f ₂	g	g ₁			
	M	20°C										W	5							6		
01	0.3	4	15.7	22	1		24.5	17.5	10			5	6	7.9	14	5	2.7		M3			
02	0.6	6	15.7	22.5	1.5	5	6	8	31	28	19.5	12.5	13	5	6	8.9	16	4	2.5	M3	M3	
03	0.9	6	18.7	26	1.5	5	6	8	34	32	23	15	15	5	6	10.9	18	4.5	2.5	M3	M3	
04	1.8	8	22	31	1.5	6	8	10	43	40	30	21	17	6	8	10	16.9	25	5.5	3	M3	M4
05	3.6	10	23.2	34	1.5	10	12	15	54	50	38	29	24	10	12	15	22.9	32	5.5	4.5	M4	M5

Size	i ₁	k ₁	l	m	n	s ₁	s ₂	s ₃	S _{Lü}	u	v	w	x	y	t _w	Stator (kg)		Armature (kg)	
																300	001	003	
01					0.8	2x4.5	2x2.1	2x3.7	0.1	13.8	14.5	2.1	8	3.5	0.03	0.040			0.005
02	26.85	32.85	8	3.5	0.8	2x5	2x2.1	2x3.7	0.1	18	21	2.25	8	3.5	0.03	0.064	0.015	0.009	
03	30.55	38.55	10	4	1.2	3x6	3x2.6	3x4.5	0.15	20	23	2.4	8	3.5	0.03	0.094	0.026	0.011	
04	37.1	46.1	12	5	1.6	3x6.5	3x3.1	3x5	0.15	23	26	2.95	8	3.5	0.03	0.180	0.037	0.023	
05	40.2	49.2	12	5	1.6	3x6.5	3x3.1	3x5	0.2	28	31	3	8	3.5	0.03	0.297	0.056	0.033	

Mounting

- To avoid alignment difficulties, offset drives using timing belts or gears and armature 3 are best.
- Clutch type 301 suits in-line drives, ensure parallel shaft alignment of t_w with respect to datum A.
- Tolerance shafts to h7. Stator/rotors are fixed with 2 off grub screws.
- Fix components axially using shims/spacer to set air gap S_{Lü}. Wear adjustment is usually not necessary on these miniature clutches.
- Armature type 3 is fitted to 3 off concentric tapped holes $\varnothing s_2$ (2 off on sizes 01 and 02) using the screws and shakeproof washers provided. We recommend the use of thread adhesive. Counterbore $\varnothing s_3$ to clear the rivet heads.
- Armature type 1 has a keyway to BS4235 with a grub screw for axial fixing. Note alignment comment above.
- Secure the stator from rotating using a loose fitting pin in the torque arm slot of width y.
- As with all pole face clutches, keep the friction surfaces free from oil and grease.
- These clutches are controlled by a 24V d.c. signal. For a suitable power supply use of Simplavolt units.

For more detailed mounting information view Publication No. 251.