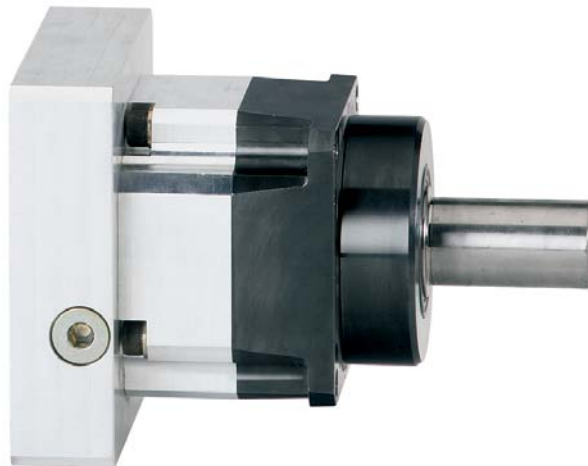


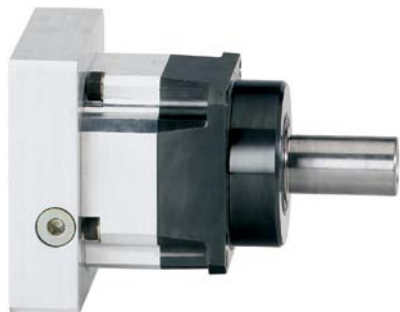
Motors and gearboxes

Servo planetary gearboxes GTM for precision applications



Servo planetary gearboxes ■ GTM for precision applications**Documentation**

- Project planning manual

**High precision and load capacity**

- High-precision gearing for highest positioning accuracy
- Minimum power dissipation in continuous operation
- Optimized gear tooth forming for silent operation
- Environment-resistant, hermetically sealed housing
- High acceleration torque is achievable through a compact and rigid construction

Characterized by a particularly high power density and low backlash, the high-precision GTM range of planetary gearboxes has been designed for mounting directly on servo motors. Their high degree of efficiency makes these gearboxes suitable for S1 continuous operation and therefore ideal for use in printing presses, for example.

Combined with the dynamic IndraDyn motors they achieve the highest speeds, acceleration and optimum positioning accuracy. The single-stage or two-stage gearboxes can be supplied with a plain shaft or keyway and also with reduced backlash on request.

Technical data

Gearboxes	Translation	i	Nominal input speed	Max. input speed	Max. output speed	Nominal input torque	Nominal output torque		Max. output torque	Backlash		Torsional stiffness	Efficiency	Moment of inertia	
			[1/min]							Standard	Reduced				
															$\eta_{IN N}$
[1/min]	[arc-min]	[arc-min]	[Nm/arc-min]	[%]											
GTM060-NN1-004	Single-stage	4	3,000	5,000	1,250	6.25	25	12.5	50	□ 6	□ 3	3.5	97	0.16	
GTM060-NN1-005		5	4,000	6,300	1,260	5				10	□ 6				□ 3
GTM060-NN1-007		7	5,000	8,000	1,143	3.6				7.1	□ 6				□ 3
GTM060-NN1-010		10	6,000	10,000	1,000	2				20	4				40
GTM060-NN2-020	Two-stage	20	4,000	6,300	315	1.25	25	2.5	50	□ 8	□ 6	3.5	94	0.12	
GTM060-NN2-050		50	6,000	10,000	200	0.5				1	□ 8				□ 6

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			[1/min]							Standard	Reduced				D	η	J
GTM075-NN1-004	Single-stage	4	3,000	5,000	1,250	21.3	85	42.5	170	□ 6	□ 3	8.2	97	0.55			
GTM075-NN1-005		5	4,000	6,300	1,260	20	100	40	200	□ 6	□ 3			0.47			
GTM075-NN1-007		7	5,000	8,000	1,143	12.1	85	24.3	170	□ 6	□ 3			0.41			
GTM075-NN1-010		10	6,000	10,000	1,000	6	60	11	110	□ 6	□ 3			0.38			
GTM075-NN2-020	Two-stage	20	4,000	6,300	315	4.25	85	8.5	170	□ 8	□ 6	94	0.47				
GTM075-NN2-050		50	6,000	10,000	200	2	100	4	200	□ 8	□ 6						
GTM100-NN1-003	Single-stage	3	2,300	4,000	1,333	40	120	73.3	220	□ 4	□ 2	24	97	2.8			
GTM100-NN1-004		4	2,500			42.5	170	85	340	□ 4	□ 2			2			
GTM100-NN1-005		5	3,000	5,000	1,000	40	200	80	400	□ 4	□ 2			1.64			
GTM100-NN1-007		7	4,000	6,300	900	24.3	170	48.6	340	□ 4	□ 2			1.36			
GTM100-NN1-010		10	5,000	8,000	800	12	120	22	220	□ 4	□ 2			1.22			
GTM100-NN2-020	Two-stage	20	3,000	5,000	250	8.5	170	17	340	□ 6	□ 4	94	1.56				
GTM100-NN2-050		50	5,000	8,000	160	4	200	8	400	□ 6	□ 4		1.44				
GTM140-NN1-003	Single-stage	3	1,800	3,200	1,067	93.3	280		560	□ 4	□ 2	48	97	8.2			
GTM140-NN1-004		4	2,000			800	105	420	210	840	□ 4			□ 2	6.75		
GTM140-NN1-005		5	2,500	4,000	100	500	200	1,000	□ 4	□ 2	5.54						
GTM140-NN1-007		7	3,000	5,000	714	60	420	120	840	□ 4	□ 2			4.59			
GTM140-NN1-010		10	4,000	6,300	630	28	280	56	560	□ 4	□ 2			4.1			
GTM140-NN2-020	Two-stage	20	2,500	4,000	200	21	420	42	840	□ 6	□ 4	94	5.29				
GTM140-NN2-050		50	4,000	6,300	126	10	500	20	1,000	□ 6	□ 4		4.96				

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			$\eta_{IN N}$							Standard	Reduced			
			[1/min]							[arc-min]	[arc-min]			
GTM180-NN1-003	Single-stage	3	1,300	2,500	833	240	720	480	1,440	□ 4	□ 2	148	97	36
GTM180-NN1-004		4	1,500		625	255	1,020	510	2,040	□ 4	□ 2			24.5
GTM180-NN1-005		5	2,000	3,200	640	240	1,200	480	2,400	□ 4	□ 2			18.8
GTM180-NN1-007		7	2,500	4,000	571	145.7	1,020		2,040	□ 4	□ 2			14.5
GTM180-NN1-010		10	3,000	5,000	500	72	720	144	1,440	□ 4	□ 2			12.3
GTM180-NN2-020	Two-stage	20	2,000	3,200	160	51	1,020	102	2,040	□ 6	□ 4	94	94	6.95
GTM180-NN2-050		50	3,000	5,000	100	24	1,200	48	2,400	□ 6	□ 4			5.45
GTM240-NN1-003	Single-stage	3	800	2,000	667	600	1,800		3,000	□ 4	□ 2	340	97	128
GTM240-NN1-004		4	1,000		500	625	2,500		5,000	□ 4	□ 2			97.6
GTM240-NN1-005		5	1,200	2,500		600	3,000		6,000	□ 4	□ 2			76.4
GTM240-NN1-007		7	1,500	3,000		429	357.1	2,500		5,000	□ 4			□ 2
GTM240-NN1-010		10	2,000	3,500	350	180	1,800	300	3,000	□ 4	□ 2			51.1

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It must be remembered that our products are subject to a natural process of wear and aging.