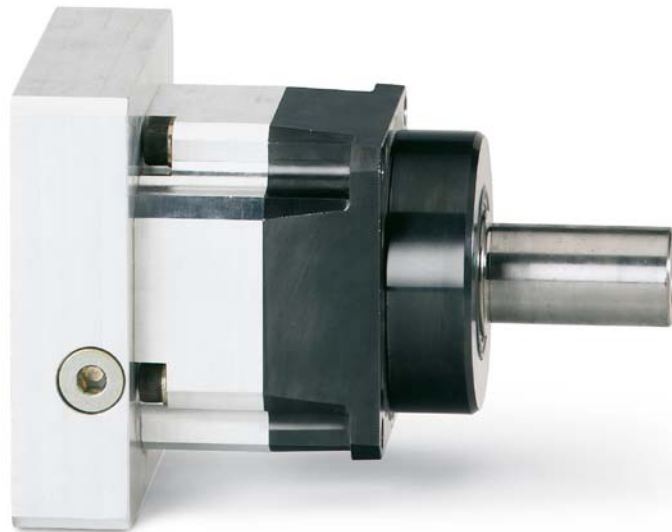


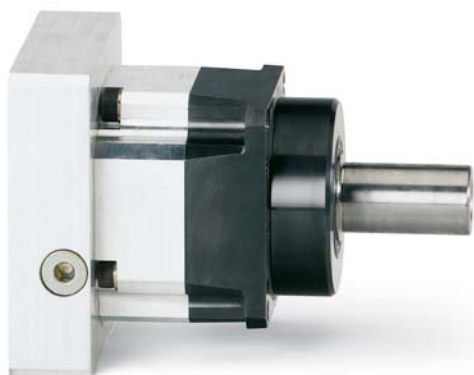
Motors and gearboxes

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 | | | | | |
| | | | | | | | | | | | | | | | $\eta_{IN N}$ | [arc-min] |
| GTM060-NN1-004 | Single-stage | 4 | 3000 | 5000 | 1250 | 6.25 | 25 | 12.5 | 50 | ≤ 6 | ≤ 3 | 3.5 | 97 | 0.16 | | |
| GTM060-NN1-005 | | 5 | 4000 | 6300 | 1260 | 5 | | | | | | | | | 10 | ≤ 3 |
| GTM060-NN1-007 | | 7 | 5000 | 8000 | 1143 | 3.6 | | | | | | | | | 7.1 | ≤ 3 |
| GTM060-NN1-010 | | 10 | 6000 | 10000 | 1000 | 2 | 20 | 4 | 40 | | | | | | ≤ 3 | |
| GTM060-NN2-020 | Two-stage | 20 | 4000 | 6300 | 315 | 1.25 | 25 | 2.5 | 50 | ≤ 8 | ≤ 6 | 3.5 | 94 | 0.12 | | |
| GTM060-NN2-050 | | 50 | 6000 | 10000 | 200 | 0.5 | | | | | | | | | 1 | ≤ 6 |

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| 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 | | | | D | η | J |
| | | | | | | | | | | | | | | | | | |
| GTM075-NN1-004 | Single-stage | 4 | 3000 | 5000 | 1250 | 21.3 | 85 | 42.5 | 170 | ≤ 6 | ≤ 3 | 8.2 | 97 | 0.55 | | | |
| GTM075-NN1-005 | | 5 | 4000 | 6300 | 1260 | 20 | 100 | 40 | 200 | | ≤ 3 | | | 0.47 | | | |
| GTM075-NN1-007 | | 7 | 5000 | 8000 | 1143 | 12.1 | 85 | 24.3 | 170 | | ≤ 3 | | | 0.41 | | | |
| GTM075-NN1-010 | | 10 | 6000 | 10000 | 1000 | 6 | 60 | 11 | 110 | | ≤ 3 | | | 0.38 | | | |
| GTM075-NN2-020 | Two-stage | 20 | 4000 | 6300 | 315 | 4.25 | 85 | 8.5 | 170 | ≤ 8 | ≤ 6 | 94 | 0.47 | | | | |
| GTM075-NN2-050 | | 50 | 6000 | 10000 | 200 | 2 | 100 | 4 | 200 | | ≤ 6 | | | | | | |
| GTM100-NN1-003 | Single-stage | 3 | 2300 | 4000 | 1333 | 40 | 120 | 73.3 | 220 | ≤ 4 | ≤ 2 | 24 | 97 | 2.8 | | | |
| GTM100-NN1-004 | | 4 | 2500 | | 1000 | 42.5 | 170 | 85 | 340 | | ≤ 2 | | | 2 | | | |
| GTM100-NN1-005 | | 5 | 3000 | 5000 | 40 | 200 | 80 | 400 | ≤ 2 | | 1.64 | | | | | | |
| GTM100-NN1-007 | | 7 | 4000 | 6300 | 900 | 24.3 | 170 | 48.6 | 340 | | ≤ 2 | | | 1.36 | | | |
| GTM100-NN1-010 | | 10 | 5000 | 8000 | 800 | 12 | 120 | 22 | 220 | | ≤ 2 | | | 1.22 | | | |
| GTM100-NN2-020 | Two-stage | 20 | 3000 | 5000 | 250 | 8.5 | 170 | 17 | 340 | ≤ 6 | ≤ 4 | 94 | 1.56 | | | | |
| GTM100-NN2-050 | | 50 | 5000 | 8000 | 160 | 4 | 200 | 8 | 400 | | ≤ 4 | | 1.44 | | | | |
| GTM140-NN1-003 | Single-stage | 3 | 1800 | 3200 | 1067 | 93.3 | 280 | | 560 | ≤ 4 | ≤ 2 | 48 | 97 | 8.2 | | | |
| GTM140-NN1-004 | | 4 | 2000 | | 800 | 105 | 420 | 210 | 840 | | ≤ 2 | | | 6.75 | | | |
| GTM140-NN1-005 | | 5 | 2500 | 4000 | 100 | 500 | 200 | 1000 | ≤ 2 | | 5.54 | | | | | | |
| GTM140-NN1-007 | | 7 | 3000 | 5000 | 714 | 60 | 420 | 120 | 840 | | ≤ 2 | | | 4.59 | | | |
| GTM140-NN1-010 | | 10 | 4000 | 6300 | 630 | 28 | 280 | 56 | 560 | | ≤ 2 | | | 4.1 | | | |
| GTM140-NN2-020 | Two-stage | 20 | 2500 | 4000 | 200 | 21 | 420 | 42 | 840 | ≤ 6 | ≤ 4 | 94 | 5.29 | | | | |
| GTM140-NN2-050 | | 50 | 4000 | 6300 | 126 | 10 | 500 | 20 | 1000 | | ≤ 4 | | 4.96 | | | | |

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