



Components for moving-coil movements of series KM 400

Application:

The range of application covers panel and switch-board meters as well as special instruments for ships, track vehicles, off-road vehicles, aviation and other critical fields.

The electrical conditions and most of the mounting dimensions are identical to the proven types KM 001 - 008.

Technical characteristics:

- Pointer deflection up to 90 or 110°
- Simple adaptation for zero on right, center or left as well as for suppressed zero
- Dimensions for DIN 48x48 to 144x144 or for round body with diameter from 22 mm (1") up to approx. 150 mm (6")
- Sensitivity with good torque up to 25 μ A, even lower with corresponding design.

Installation:

- Straight bridges for general applications such as panel meters etc.
- Typical bridge mounts for DIN housing and switchboard meters
- Design without bridge for assembly in barrel
- Special bridges for adaptation to customer housing with relatively low tool costs.

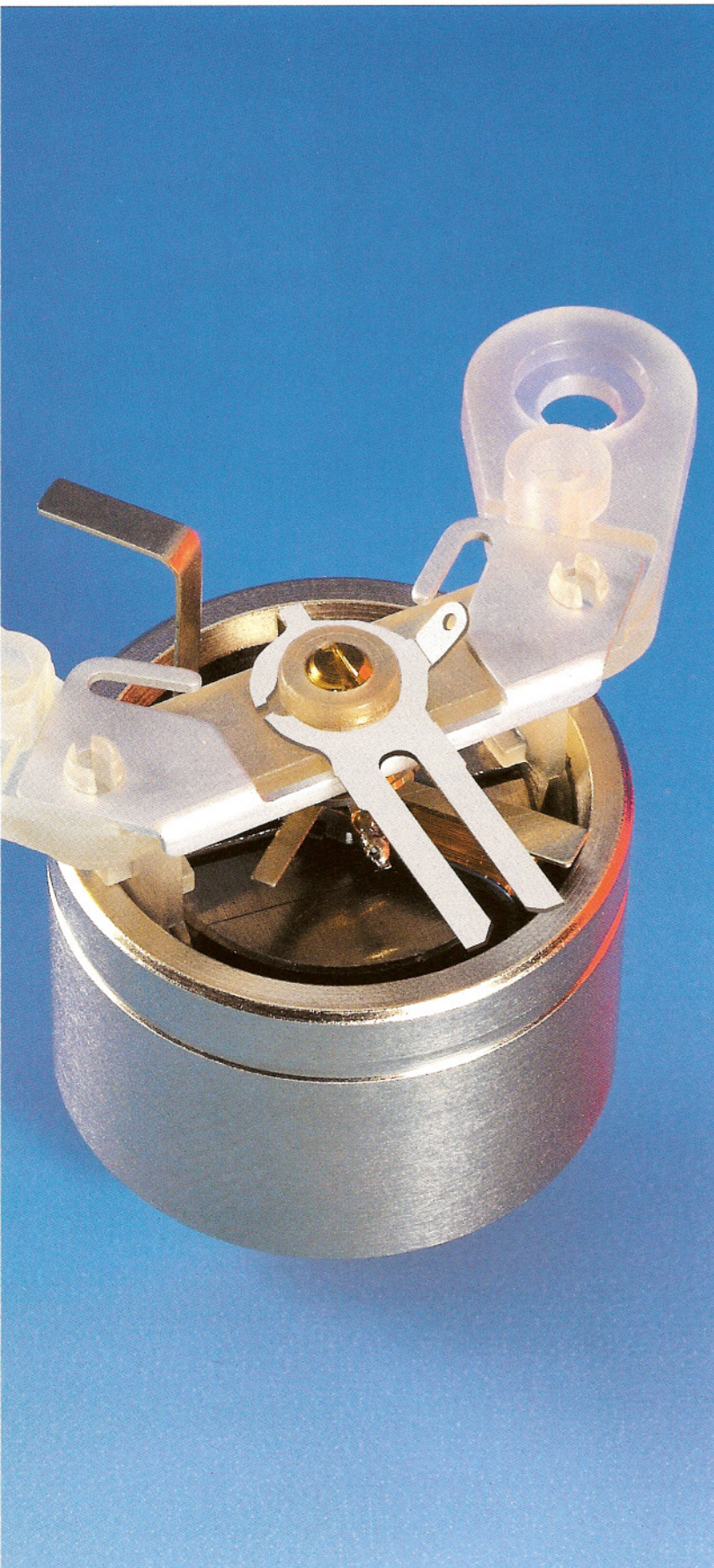
Design principles:

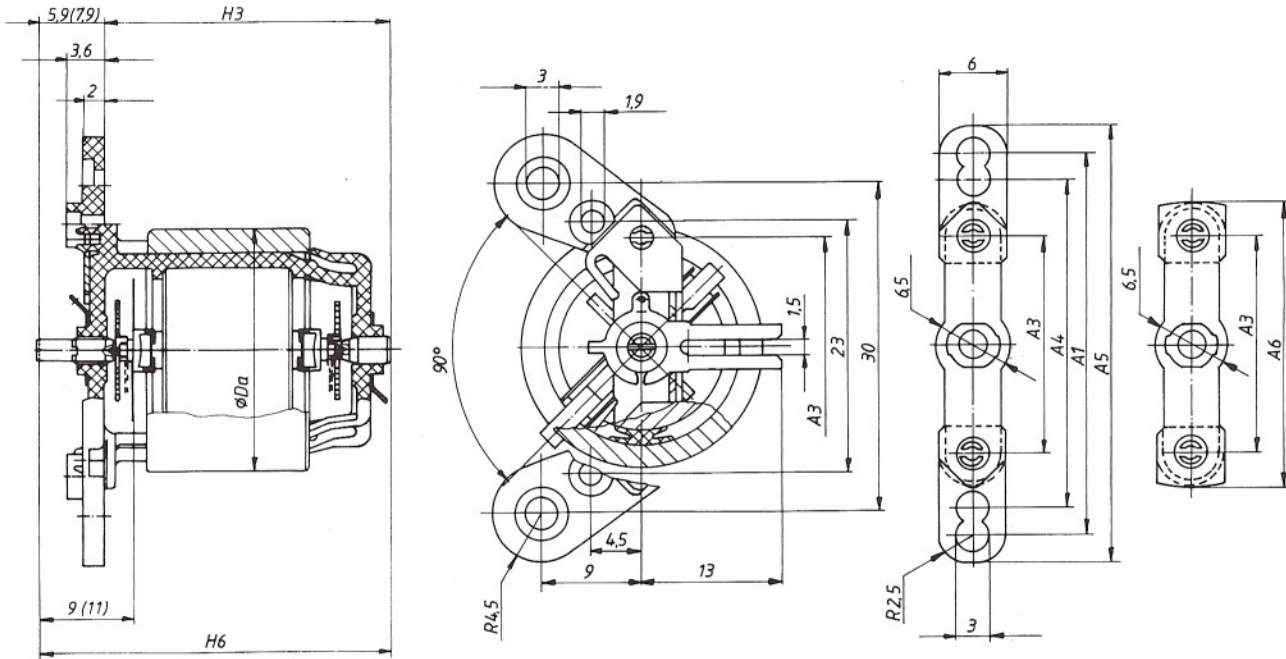
- Core magnet principle with Alnico magnets
- Good temperature stability -65°C to +100°C
- Low oval distortion of rings guarantees good linearity
- Coil frame with different conductances for adaptation of damping
- Self-centering pivot holder, vibration-proof.

Assembly:

- Short assembly times on our assembly equipment with little dependence on operator
- A large portion of the assembly equipment for types KM 001 to 008 can be used.

Make use of our decades of experience when designing your mechanisms.





Technical data of assembly kit series KM 400

Movement Typ	Dimension								Deflection angle		Induction in air gap	Linearity error	Sensitivity (full deflection)	
	A1	A3	A4	A5	A6	ØDa	H3	H6	Effektive	Mech.			Min.	Max. at 90° ³ deflection
KM 407	35	20	30	40	26,5	22	26,6	32,5 (34,5) ⁵	90°(100°) ⁴	110°	215 mT	±0,8%	≥16µA	≥50µA
KM 404	35	20	30	40	26,5	22	22,6	28,5 (30,5) ⁵	90°(100°) ⁴	110°	210 mT	±0,8%	≥20µA	≥60µA
KM 402	31,5	16,5	26,5	36,5	23	18	21,6	27,5 (29,5) ⁵	90°	110°	195 mT	±1,0%	≥45µA	≥150µA

¹ Values with max. number of windings, Cu diam. 0.020 mm, and torque 200 µNcm/90°

² Values with max. number of windings, Cu diam. 0.025 mm, and torque 320 µNcm/90°

³ Magnet (MGN 00X) and iron ring (RGN 40X) from PREFAG

⁴ 100° possible

⁵ Two heights of pointer cross

Subject to technical alterations

Assembly

The components of the KM 400 series are delivered as a complete set. We can offer you our assembly equipment.

Movements

If required we can also supply ready-assembled movements with or without pointers and balancing.

Technical documents

Comprehensive technical documentation exists for the above sets. If you require this documentation, we would be pleased to send it to you.

We would also be pleased to support you in the design of your components. Profit from our extensive experience.