# KENDRION



# **Slim Line**

Spring-applied single-surface brake 76 13105C00, 76 13111C00

## Kendrion – The brake experts

Kendrion stands for high-precision electromagnetic actuator systems and components for passenger cars, commercial vehicles and industrial applications. We are the trusted partner of some of the world's market leaders in the automotive and industrial segments when it comes to designing and producing complex components and customised solutions. Rooted in Germany, headquartered in the Netherlands and listed on the Amsterdam stock exchange, our expertise extends across Europe to the Americas and Asia.

#### **Tradition and progress**

More than one hundred years after the company was founded by Wilhelm Binder, Kendrion is ideally equipped for the challenges and tasks of the future. The company has always held a strong position in the market and is expanding its activities all over the world. In the field of electromagnetism, Kendrion stands for highest quality, innovation and precision.

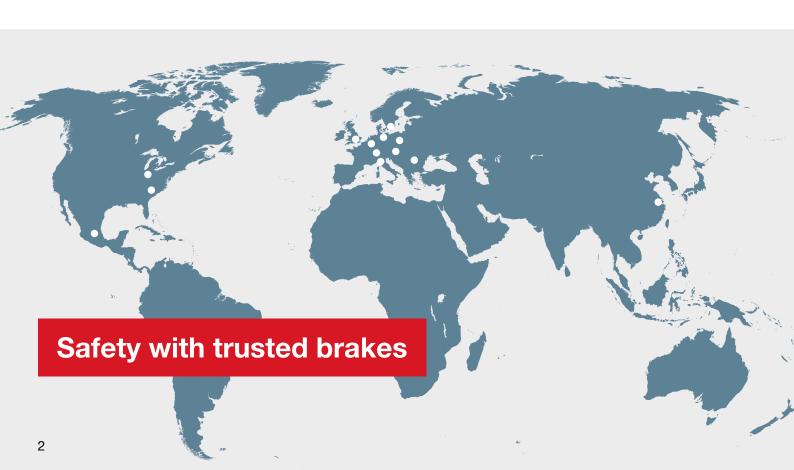
#### Areas of application for brakes and clutches

The Kendrion business unit Industrial Drive Systems develops and produces electromagnetic brakes and clutches for industrial drive technology. They are used to accelerate, brake, position, hold and secure moving drive components and loads. Areas of applications for the brakes and clutches can be found mainly in robotics and automation, conveyor technology, tooling machines and production engineering, medical technology and elevator technology.

#### Worldwide availability

The main location is in Villingen-Schwenningen in southern Germany. However, Industrial Drive Systems has further development and production sites as well as a worldwide sales network at its disposal.

We will find the right brake for your application!





## **About the Slim Line**

The Slim Line is comprised of spring-applied singledisc brakes where the spring actuated brake-discs are attached to the shaft. The brake disc can be designed as a motor fan. Being designed as singlesurface brakes, Slim Line brakes are not only extremely flat but are also released with zero residual torque. Electromagnetically operated spring-applied brakes generate the brake torque when voltage is removed.

#### **Versions**

#### 76 13105C00

torque 0.25 Nm, (0.5 Nm; 50% ED) DC, single-phase AC

#### 76 13111C00

torque 3 Nm DC high or low version fan

#### **Applications**

Machine tools, e.g. woodworking machinery

Flat motors

**Building installations** 

Saws, e.g. circular saws

Wheelchairs ...

#### **Data sheets - General information**

The Operating Instructions must be strictly observed during the set-up of the machine (e.g. motor) and during the start-up, operation and maintenance of the brakes. The state-of-the-art brakes have been designed, built and tested in accordance with the requirements of DIN VDE 0580 concerning electromagnetic devices and components. Additional information on technical specifications given in the data sheets is included in the operating instructions.

# Spring-applied single-surface brake

### DC or single-phase AC

Versions

Standard rated voltages

Protection
Thermal class
Rated torques
Note

76 13105C00 DC / single-phase AC 102 V DC 230 V AC, 50 Hz IP 00 F 0.25 Nm

Specification subject to change without notice. The "General technical information" and the "Operating instructions" 76 13105C00 must be strictly observed.

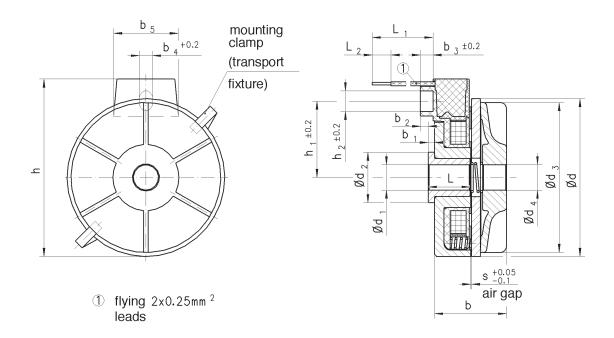


#### **Technical data**

Size	Rated Max.				Rated power		Respon	se times	Moment of inertia friction disc	Weight
	torque	speed	power	switching energy (Z = 1)	DC	AC	Coupling time	Disconnection time	(fan)	
	M <sub>2</sub> [Nm]	n <sub>max</sub> [rpm]	P <sub>max</sub> [kJ/h]	W <sub>max</sub> [kJ]	P <sub>N</sub> [W]	P <sub>s</sub> [VA]	t, [ms]	t <sub>2</sub> [ms]	J [kgcm²]	m [kg]
05	0.25	3600	22	16	9	22	26	5	0.044	0.16

<sup>1)</sup> If operated with bridge rectifier.

<sup>&</sup>lt;sup>2)</sup> If operated with half-wave rectifier with recovery diode.



Туре	d	d <sub>1</sub> (G7) <sup>3)</sup>	<b>d</b> <sub>2</sub> <sup>3)</sup>	d <sub>3</sub>	d <sub>4</sub> (S6) 3)	b	<b>b</b> <sub>1</sub> <sup>3)</sup>	<b>b</b> <sub>2</sub> 3)	<b>b</b> <sub>3</sub> 3)
76 13105C00	50	8	16	47.5	8	23	2	2.5	4
76 13105C05	50	8	16	47.5	8	23	2	6.5	8
76 13105C06	50	6	16	47.5	6	23	2	6.5	8
76 13105C07	50	5	14	47.5	5	23	1.4	7.1	8

Туре	b <sub>4</sub>	b <sub>5</sub>	h	h <sub>i</sub>	h <sub>2</sub>	L	L,	L <sub>2</sub>	s	S <sub>max</sub>
76 13105C00	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.41) / 0.82)
76 13105C05	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.41) / 0.82)
76 13105C06	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.41) / 0.82)
76 13105C07	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.41) / 0.82)

 <sup>&</sup>lt;sup>1)</sup> Max. air gap up to fan replacement if operated with bridge rectifier.
 <sup>2)</sup> Max. air gap up to fan replacement if operated with half-wave rectifier with recovery diode
 <sup>3)</sup> Options.

# Spring-applied single-surface brake

DC

**Versions** Standard rated voltages **Protection** Thermal class **Rated torques** Note

76 13111C00

102 V DC

IP 54 (if installed under motor fan hood)

3 Nm

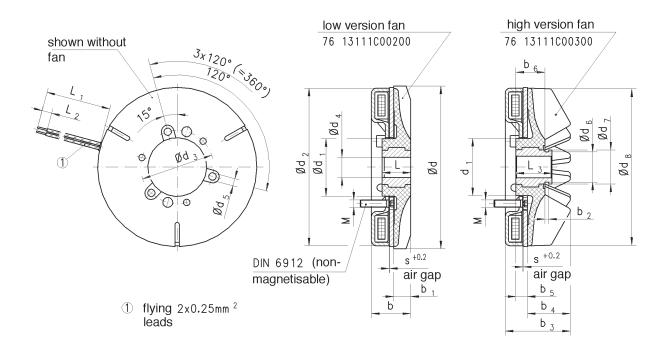
Specification subject to change without notice. The "General technical information" and the "Operating instructions" 76 13111C00 must be strictly observed.



#### **Technical data**

Size	Rated	Max.			Max. switching power		· · · · · · · · · · · · · · · · · · ·		Respon	se times	Moment of inertiafan		Weight
	torque	speed	1)	2)	switching energy (Z = 1)	power	Coupling time	Disconnection time	1)	2)			
	M <sub>2</sub> [Nm]	n <sub>max</sub> [rpm]	P <sub>max</sub> [kJ/h]	P <sub>max</sub> [kJ/h]	W <sub>max</sub> [kJ]	P <sub>N</sub> [W]	t, [ms]	t <sub>2</sub> [ms]	J [kgcm²]	J [kgcm²]	m [kg]		
11	3	3000	260	350	13	40	20	30	1.5	1.8	0.7		

 $<sup>^{\</sup>rm 1)}$  Low version fan without ring groove for pull-off device (type 76 13111C00200).  $^{\rm 2)}$  High version fan with ring groove for pull-off device (type 76 13111C01300).



Туре	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d₄(H7)	d₅	d <sub>6</sub>	d <sub>7</sub>	d <sub>8</sub>	b	b <sub>1</sub>	b <sub>2</sub>
11	113	40	110	51	151) / 202)	5.2	21	24	110	27.5	12	2.5
Туре	b <sub>3</sub>	b <sub>4</sub>	<b>b</b> <sub>5</sub>	b <sub>6</sub>	L	L	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	s	S <sub>max</sub>	М

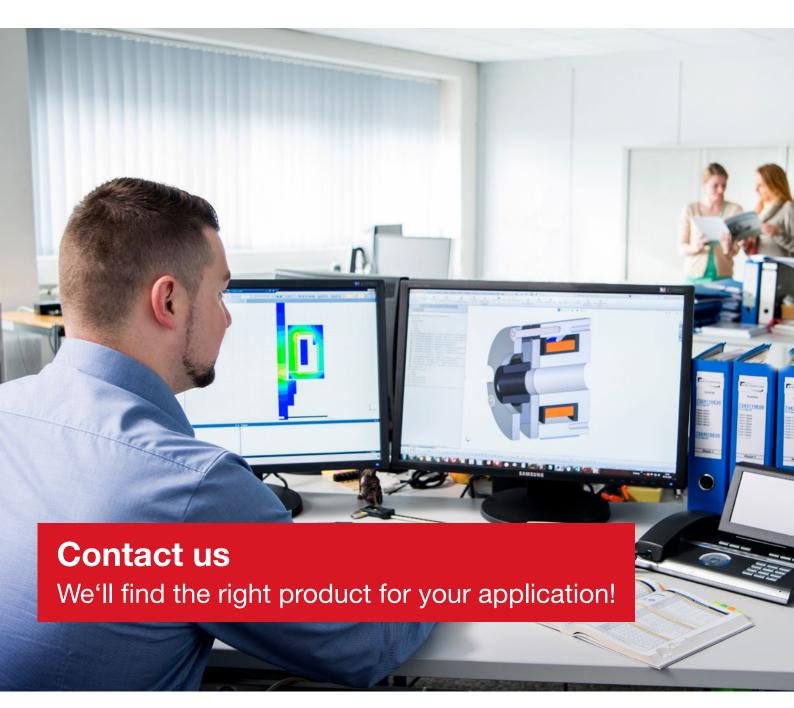
Shaft ISO fitting f7 with necking for tolerance ring.

<sup>&</sup>lt;sup>1)</sup> Min. bore. <sup>2)</sup> Max. bore.

### Individual customer solutions

Specially tailored to your needs

Automation solutions have become indispensable in both industry and our everyday lives. Mechatronics helps achieve further expansion of these solutions, and increases the range of applications. In many cases, electromagnetic brakes meet the necessary safety requirements, allowing loads to be securely held and ensuring safe braking in an emergency. Catering to different market demands while also ensuring product standardization is a challenge that Kendrion relishes. Customized solutions can be developed and manufactured on the basis of an existing portfolio of products, the prerequisite being the analysis and understanding of industry-specific customer requirements. With the right product range and a high level of expertise in automation technology, robotics, machine building and elevator engineering, Kendrion Industrial Drive Systems is your dependable partner, providing the ideal individual brake solution for any application.





## **Branded replacement parts from Kendrion**

Much more than mere effort

Perfect operation and excellent functionality of your machine are only possible with original spare parts from Kendrion.

If you place top priority on long-term product safety and fl awless functionality you should always use original Kendrion spare parts and replacement equipment. These high-quality tested products can only be obtained directly from Kendrion. Our worldwide service network ensures availability around the globe.

Reliable spare parts supply is just one of our key strengths. Our fl exible manufacturing capabilities and strong logistics management as well as the in-depth know-how of our service-driven personnel ensure fast and competent assistance in any situation.

Our customers appreciate the excellent reliability of original Kendrion spare parts because they offer uncompromising compatibility and ensure full functionality of the equipment in which they are used.



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