What you read is what you get

When it comes to validation and verification of the values the user can rely on the competent lab team of the brake specialist. Over the years, Kendrion has developed great competence in testing and qualifying its products.

The lab is equipped with test devices for the measuring range from 0.1 Nm to 10,000 Nm. The test setups reflect application conditions 1:1 and can thus reproduce real circumstances.

All measurement data are recorded under different operating conditions such as temperature, friction work, rotational speed and direction of rotation and are gathered for the technical data. Due to these options the user can be provided with well-founded technical details.

KENDRION

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PRECISION. SAFETY. MOTION.

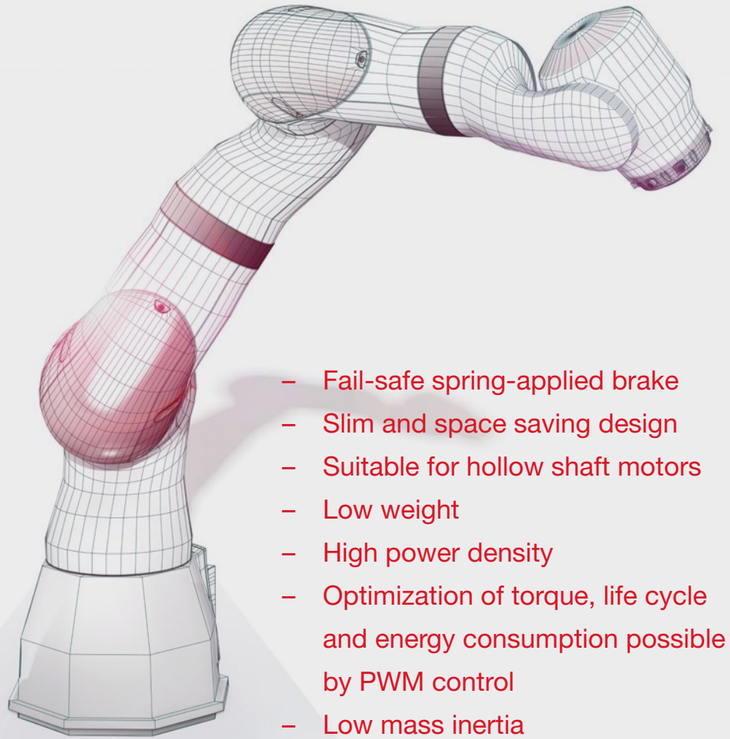
KENDRION

KENDRION SOLUTIONS

Servo Slim Line

Very flat brake with large inner diameter

PRECISION. SAFETY. MOTION.

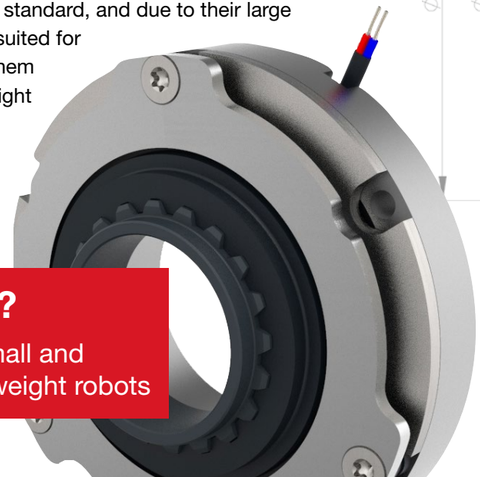


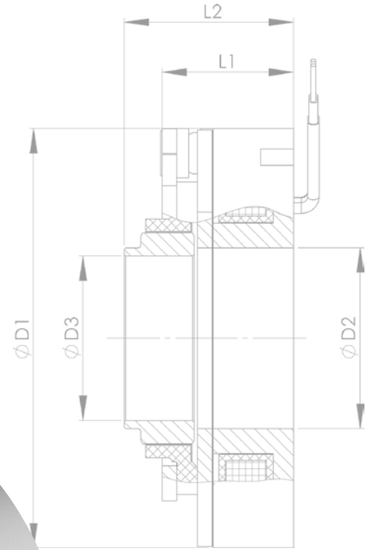
- Fail-safe spring-applied brake
- Slim and space saving design
- Suitable for hollow shaft motors
- Low weight
- High power density
- Optimization of torque, life cycle and energy consumption possible by PWM control
- Low mass inertia

With each use of robots also the security aspect must be considered. Even in the case of control or current failures neither humans nor capital goods must be affected by irregular movements.

For decades Kendrion has been supplying brakes for industrial robots with loads higher than 20 kg. In order to be able to serve the booming market of smaller robots, Kendrion has designed the new flat spring-applied brakes “Servo Slim Line” which are ideally suited for robotics solutions for loads of up to approximately 20 kg.

With regard to their power density the slim single-disc brakes are flatter and lighter than the market standard, and due to their large inner diameter they are perfectly suited for hollow-shaft drives. This makes them perfect for applications in lightweight robots with integrated drives.





Space problems?

Servo Slim Line – the small and compact brake for lightweight robots

Technical data

Size	03	04	05	07	09	10
D1 [mm]	32	38	51	69	86	110
D2 [mm]	9	11.5	22	30	42	58
D3 [mm]	7.5	10.5	20	25	35.5	40.5
L1 [mm]	16	16	16	18	20	21
L2 [mm]	17	18	20	25	28	28
Nominal power consumption P_N [W]	5.8	8.3	10.3	11.4	14.0	20.0
Nominal static torque M_s [Nm]	0.4	0.4	1	2.4	5.0	6.5
Minimum static torque M_{4min} [Nm]	0.3	0.25	0.6	1.7	4.0	5.0
Maximum dynamic torque M_{1max} [Nm]	0.4	0.6	1.5	3	8.0	10.0
Nominal speed n_n [min^{-1}]	6000	5000	5000	4000	3000	3000
Maximum speed n_{max} [min^{-1}]	8000	8000	8000	8000	6000	6000
Total work W_{tot} [kJ]	0.1	1	4	10	50	60
Max. work / switch W_{max} [J]	0.5	5	20	50	250	300
Number of emergency stops	200					
Ambient temperature T_a [°C]	-10 to 100					
Thermic class	F (155°C)					
Nominal backlash [°]	1					
Weight [g]	85	100	160	310	530	680