

Product data sheet

Characteristics

GBX080003K

gearbox straight teeth GBX, Lexium, 80mm, reduction 3:1 , 7arc.min, 85N.m



Main

Range compatibility	Lexium 32 Lexium SD3 Lexium 62 Lexium ILS Lexium 62 ILM Lexium 52 Lexium 32i Lexium 28
Gear box type	Straight teeth
Product or component type	Planetary gearbox
Device short name	GBX
Product compatibility	BMI (70 mm, 2 motor stacks) BMI (70 mm, 3 motor stacks) BMH (100 mm, 1 motor stacks) BMH (100 mm, 2 motor stacks) BMH (100 mm, 3 motor stacks) BSH (100 mm, 1 motor stacks) BSH (100 mm, 2 motor stacks) BSH (100 mm, 3 motor stacks) BRS3 ILS (85 mm, 1 motor stacks) ILS (85 mm, 2 motor stacks) ILS (85 mm, 3 motor stacks) BCH2 (80 mm, 1 motor stacks) BCH2 (80 mm, 2 motor stacks) SH3 MH3 ILM
Gearbox external diameter	80 mm
Reduction ratio	3:1

Complementary

Maximum torsional backlash	7 arc.min
Torsional rigidity	6 N.m/arcmin
Housing colour	Black
Housing material	Black anodized aluminium
Shaft material	C 45
Additional information	Lubricated for life
Service life in hours	30000 h at 100 rpm at 30 °C
Mounting position	Any position
Efficiency	96 %
Maximum radial force Fr	650 N at 100 rpm, force applied at mid-distance from output shaft during 30000 hour at 30 °C
Maximum axial force Fa	1200 N at 100 rpm, during 30000 hour at 30°C
Moment of inertia	0.77 kg.cm ²
Continuous output torque	85 N.m at 100 rpm at 30 °C
Maximum output torque	136 N.m at 100 rpm at 30 °C
Net weight	2.1 kg
Input diameter	19.0 mm

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Environment

Noise level	60 dB at 1 m, no-load
IP degree of protection	Shaft output: IP54
Ambient temperature for operation	-25...90 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.0 cm
Package 1 Width	10.7 cm
Package 1 Length	16.5 cm
Package 1 Weight	1.914 kg
Unit Type of Package 2	S03
Number of Units in Package 2	5
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	10.065 kg

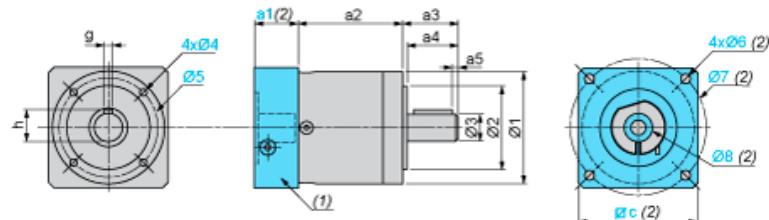
Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	No need of specific recycling operations
PVC free	Yes

Contractual warranty

Warranty	18 months
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Dimensions with Servo Motor Adaptation Kit



(1) GBK adaptation kit

(2) GBK adaptation kit related dimensions a1, c, Ø6, Ø7, Ø8 depend on the gearbox and servo motor combination

Ø8 shaft end adaptor in case motor shaft diameter is smaller than gearbox input coupling diameter

Values in mm

a2	a3	a4	a5	h	g	Ø1	Ø2	Ø3	Ø4	Ø5
72	40	36	4	22.5	6	80	60 h7	20 h7	M6 x 10	70

Values in in.

a2	a3	a4	a5	h	g	Ø1	Ø2	Ø3	Ø4	Ø5
2.83	1.57	1.42	0.16	0.89	0.24	3.15	2.36 h7	0.79 h7	M6 x 0.39	2.76