

# Product data sheet

## Characteristics

# GBX080012K

gearbox straight teeth GBX, Lexium, 80mm, reduction 12:1 , 9arc.min, 120N.m



### Main

Range compatibility	Lexium 62 ILM Lexium 32 Lexium 28 Lexium 62 Lexium 52 Lexium 32i Lexium SD3 Lexium ILS
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 (70 mm, 3 motor stacks) BSH (70 mm, 3 motor stacks) BMH (100 mm, 1 motor stacks) BSH (100 mm, 1 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	12:1

### Complementary

Maximum torsional backlash	9 arc.min
Torsional rigidity	6.5 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	94 %
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	0.72 kg.cm <sup>2</sup>
Continuous output torque	120 N.m at 100 rpm at 30 °C
Maximum output torque	192 N.m at 100 rpm at 30 °C
Net weight	2.6 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	18.000 cm
Package 1 Width	10.500 cm
Package 1 Length	10.600 cm
Package 1 Weight	2.386 kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	10.087 kg

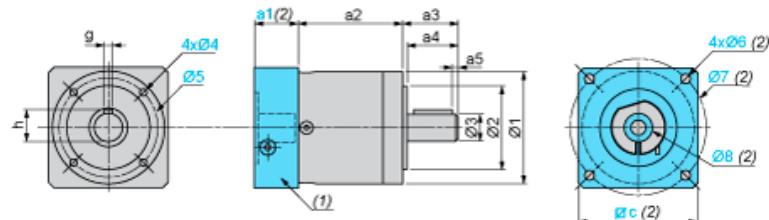
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<input checked="" type="checkbox"/> REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<input checked="" type="checkbox"/> China RoHS Declaration
RoHS exemption information	<input checked="" type="checkbox"/> Yes
Environmental Disclosure	<input checked="" type="checkbox"/> 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
89.5	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
3.52	1.57	1.42	0.16	0.89	0.24	3.15	2.36 h7	0.79 h7	M6 x 0.39	2.76