

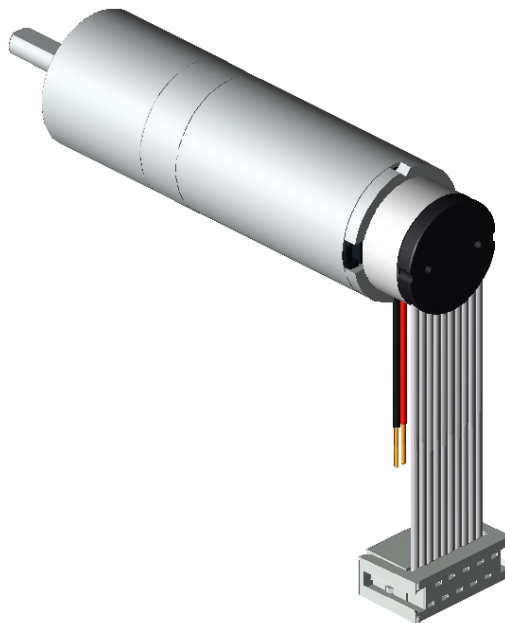
Configured drive

Motor - DCX19S GB KL 24V
Gearhead - GPX19 A 35:1
Sensor - ENX16 EASY 1024IMP

Part number: B7B9F10748A5 Revision number 2

Orders are processed and shipped from Switzerland within 11 working days.

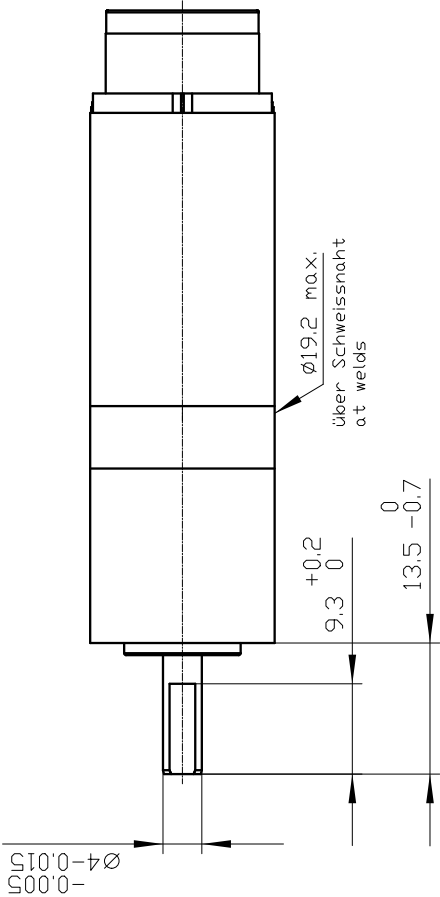
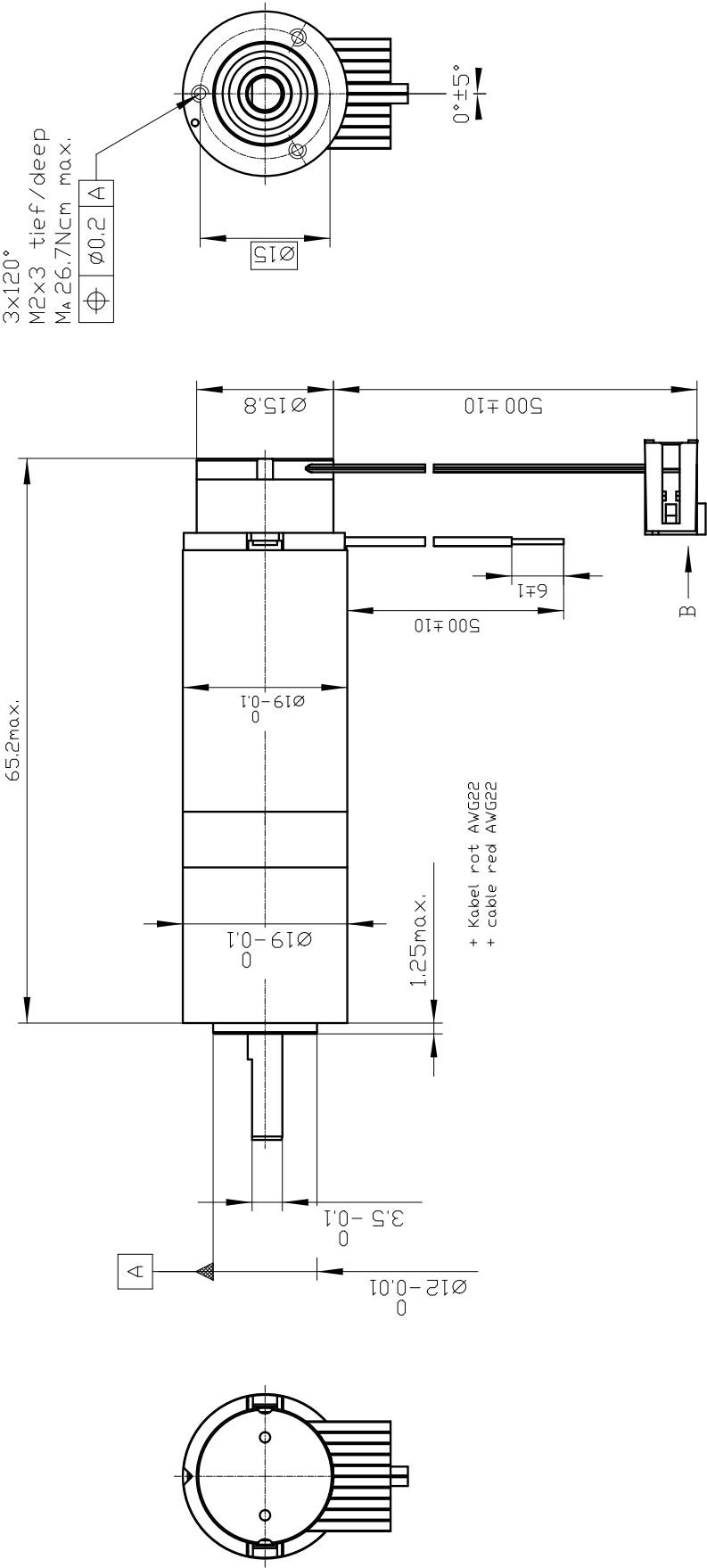
General Terms and Conditions: https://www.maxongroup.ch/maxon/view/content/terms_and_conditions_page



To open the integrated CAD file, please save this document and open it in Acrobat Reader. The STEP file is available after a double-click on the pin icon.

B7B9F10748A5.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7B9F10748A5>



Anschluss nicht dargestellt/ terminal not shown

Unit of measure: mm



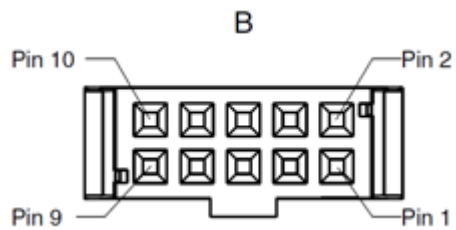
ISO 5456-1

ISO 1101

ISO 965-1

ISO 2768-m

ISO 8015



Connector type, encoder

2.54mm 10-pol

Pin 1	NC
Pin 2	VCC
Pin 3	GND
Pin 4	NC
Pin 5	Channel A \
Pin 6	Channel A
Pin 7	Channel B \
Pin 8	Channel B
Pin 9	Channel I \
Pin 10	Channel I

Summary of your selected configuration

Total weight of the drive: 93 g

DCX19S GB KL 24V

Product detail

Commutation	Graphite brushes
Nominal voltage	24 V
Motor bearings	Preloaded ball bearing

Elec. connection, motor

Elec. connection, motor	Cable
Cable length	500 mm

GPX19 A 35:1

Product detail

Gearhead type	Standard version
Reduction	35:1
Number of stages	2

ENX16 EASY 1024IMP

Product detail

Counts per turn	1024
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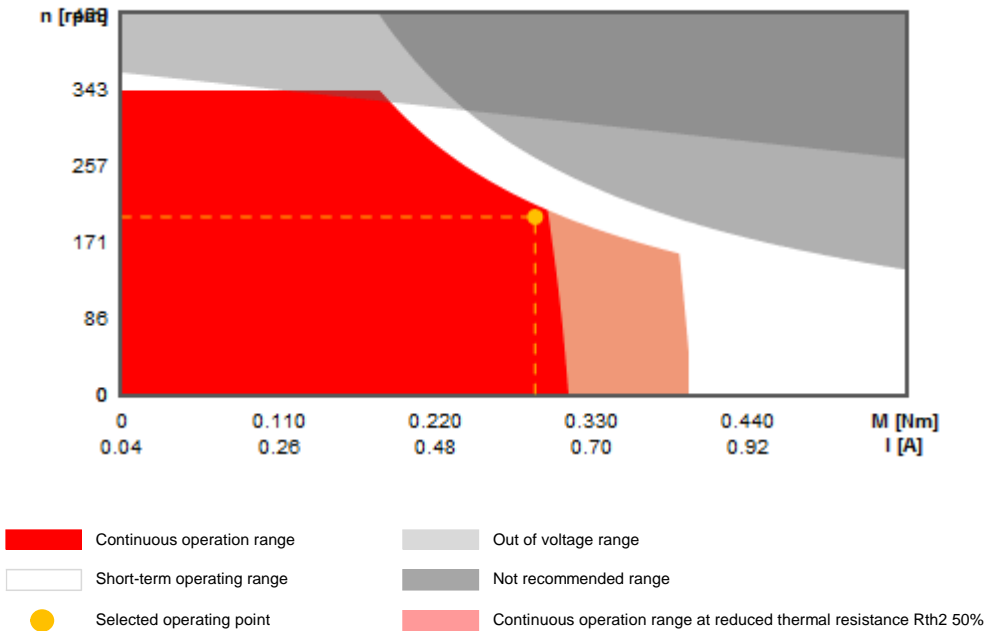
Elec. connection, sensor

Elec. connection, sensor	Configurable
Cable length	500 mm

Legend for part designation

EB	Precious metal brushes	GB	Graphite brushes	CLL	Spark suppression	BL	Brushless
A	Hall sensors	B	Sensorless	KL	Ball bearings	SL	Sintered bearings
GPX	Planetary gearhead	ENX	Encoder	ENC	Encoder	IMP	Pulses
ST	Number of stages	HP	High Power	S/M/L	Short/medium/long	HS	High Speed
STE	Sterilizable	INT	integ.	STD	Standard	SP	Speed
ABS	Absolute	LN	Reduced noise level	A	Standard	LZ	Reduced backlash
C	Ceramic bearing			STEC	Sterilizable, Ceramic bearing		

Drive disposition



Combination details

Your entries

Available voltage	24 V
Speed	200 min ⁻¹
Torque	0.29 Nm

Values of the drive at available voltage

Available voltage	24 V
Max. speed at given load	214 min ⁻¹
Max. continuous torque	0.29 Nm
Max. continuous current	0.62 A

Required electrical data for your operating point

Speed	200 min ⁻¹
Torque	0.29 Nm
Required voltage	16.67 V
Required current	0.62 A

DCX19S GB KL 24V



Product specification

Values at nominal voltage

Nominal voltage	24 V
No load speed	12700 min ⁻¹
No load current	37.5mA
Nominal speed	10700 min ⁻¹
Nominal torque (max. continuous torque)	11.4 mNm
Nominal current (max. continuous current)	0.675 A
Stall torque	74.6 mNm
Stall current	4.18 A
Max. efficiency	82.1 %

Characteristics

Max. output power continuous	16 W
Terminal resistance	5.73 Ω
Terminal inductance	0.329 mH
Torque constant	17.8 mNm A ⁻¹
Speed constant	536 min ⁻¹ V ⁻¹
Speed/torque gradient	173 min ⁻¹ mNm ⁻¹
Mechanical time constant	4.97ms
Rotor inertia	2.75 gcm ²

Thermal data

Thermal resistance housing-ambient	17.6 KW ⁻¹
Thermal resistance winding-housing	6.5 KW ⁻¹
Thermal time constant of the winding	11.6 s
Thermal time constant of the motor	312 s
Ambient temperature	-40...100 °C
Max. winding temperature	125 °C

Mechanical data

Max. permissible speed	16000 min ⁻¹
Axial play	0...0.1 mm
Preload	2.5 N
Radial backlash	0.02 mm
Max. axial load (dynamic)	2.5 N
Max. force for press fits (static)	30 N

Static, supported shaft	440 N
Max. radial load 5 mm from flange	16 N
Measurement from the flange	5 mm

Further specifications

Number of pole pairs	1
Number of commutator segments	9
Motor weight	52.5 g
Motor length	33.75 mm
Typical noise level	40 dBA (6000 min ⁻¹)

Information about motor data: https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/12_049_EN.pdf

GPX19 A 35:1



Product specification

Gearhead data

Reduction	35:1
Absolute reduction	4554/130
Number of stages	2
Max. continuous torque	0.45 Nm
Max. intermittent torque	0.55 Nm
Direction of rotation, drive to output	=
Max. efficiency	80 %
Average backlash no-load	1.2 °
Mass inertia	0.227 gcm ²
Max. transmittable power (continuous)	6.5 W
Max. short-time transferable output	8.1 W

Technical data

Output shaft bearing	Ball bearings
Max. radial play, 10 mm from flange	max. 0.1 mm
Axial play	0...0.1 mm
Max. permissible radial load, 5 mm from flange	80 N
Max. permissible axial load	40 N
Max. permissible force for press fits	100 N
Max. continuous input speed	12000 min ⁻¹
Max. intermittent input speed	15000 min ⁻¹
Recommended temperature range	-40..100 °C

Information about gearhead data: https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/12_203_EN.pdf

ENX16 EASY 1024IMP



Product specification

Sensor data

Counts per turn	1024
Number of channels	3
Line Driver	RS422
Max. electrical speed	90000 min ⁻¹
Max. mechanical speed	30000 min ⁻¹

Technical data

Supply voltage Vcc	5 V ±10 %
Output signal	INC
Output signal driver	Differential / EIA RS 422
Output current per channel	-20...20 mA
State length	20...160 °el
Signal rise time/Signal fall time	20/20 ns
Min. state duration	125 ns
Direction of rotation	A before B CW
Index position	A low & B low
Index synchronously to AB	Yes
Index pulse width	90 °el
Typical current draw at standstill	22 mA
Max. moment of inertia of code wheel	0.05 gcm ²
Operating temperature range	-40...100 C°
Number of autoclave cycles	0

Datasheet: https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/ENXEASY_EN.pdf