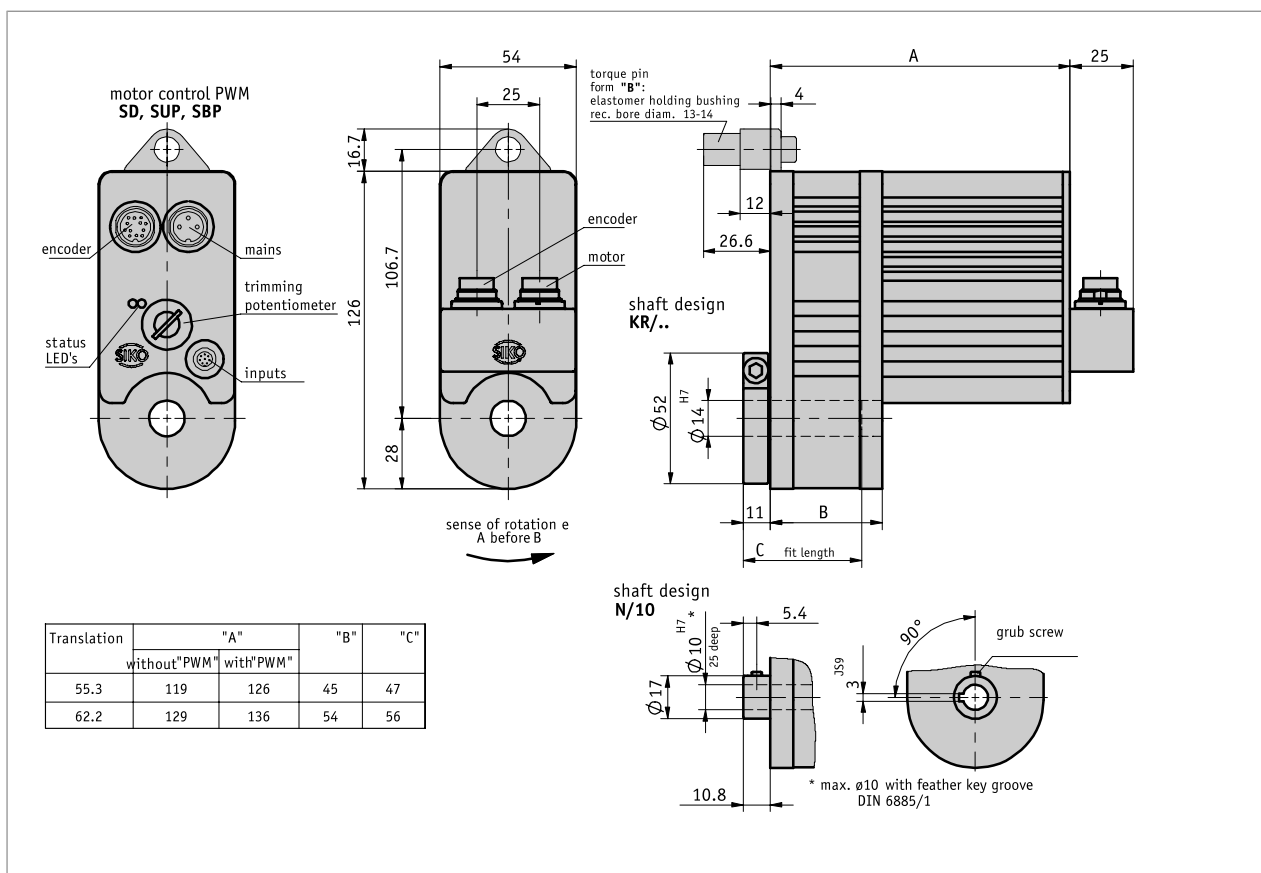
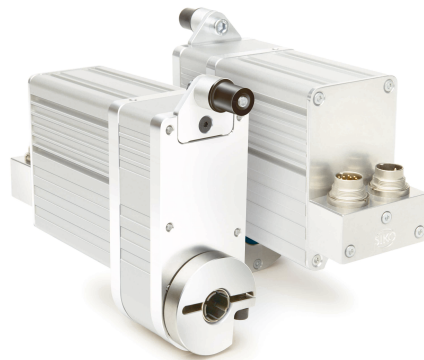


### Profile

- Easy mounting
- Through hollow shafts up to max.  $\varnothing 14$  mm
- Integrated magnetic position encoder on output shaft
- Integrated motor control (option)



### Mechanical data

Feature	Technical data	Additional information
shaft	black-finished steel	
Housing	aluminum	
Nominal torque/rated speed	5 Nm at $80 \text{ min}^{-1}$	$i = 55.3$ (70 W-M motor)
	8 Nm at $120 \text{ min}^{-1}$	$i = 55.3$ (150 W motor)
	6 Nm at $70 \text{ min}^{-1}$	$i = 62.2$ (70 W-M motor)
	9 Nm at $110 \text{ min}^{-1}$	$i = 62.2$ (150 W motor)
Operating mode	S3 intermittent operation: 25 % DC, 10 min.	EN 60034-1
Weight	~1.6 kg	(incremental)

### Electrical data

#### ■ Motor

Feature	Technical data	Additional information
Operating voltage	0 ... 24 V DC	without motor control PWM
	24 V DC $\pm 10\%$	reverse polarity protected, with PWM motor control
Power input	70 W	
	150 W	
Rated current	5.8 A $\pm 4\%$ , (150 W motor)	max. load current $i = 55.3 / i = 62.2$
	2.9 A $\pm 4\%$ , (70 W-M motor)	max. load current $i = 55.3 / i = 62.2$
Type of connection	2x M16 plug connectors	3-pole, 1x pin; 12-pole, 1x pin

#### ■ PWM motor control

Feature	Technical data	Additional information
Operating voltage	24 V DC $\pm 20\%$ , controlled, with LED indicator	reverse polarity protection
Inputs	digital with LED indicator / analog	
Analog inputs	0 ... 10 V	impedance $> 1.3 \text{ M}\Omega$
	-10 ... 10 V	impedance $> 1.3 \text{ M}\Omega$
Digital inputs	15 ... 30 V, typical 10 mA	
PWM (Pulse width modulation) input	$\sim 16 \text{ kHz}$ , continuously variable, 0 ... 100 %	soft start

#### ■ Encoder

Feature	Technical data	Additional information
Operating voltage	5 V DC $\pm 5\%$	LD5 position encoder, no reverse polarity protection
	24 V DC $\pm 20\%$	LD24 + OP position encoder, reverse polarity protected
Current consumption	$< 50 \text{ mA}$	LD5 position encoder
	$< 25 \text{ mA}$	LD24 + OP position encoder
Output circuit	Line Driver (RS422)	LD5 + LD24 position encoders
	Push Pull (OP)	OP position encoder
Output signals	A, B, I, /A, /B, /I	
Pulse frequency	$\leq 20 \text{ kHz}$	

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 50 °C	
	0 ... 70 °C	without motor control, with position encoder
	0 ... 80 °C	without motor control, without position encoder
Storage temperature	-20 ... 80 °C	
Relative humidity		condensation inadmissible
EMC	EN 61800-3, second environment	interference resistance / immission
	EN 61800-3, C3	emitted interference / emission
Protection category	IP50 (IP65 optional) with mounted mating connectors	EN 60529
Shock resistance	500 m/s <sup>2</sup> , 11 ms	EN 60068-2-27
Vibration resistance	$\leq 100 \text{ m/s}^2$ , 5 ... 150 Hz	EN 60068-2-6

### pin assignment

#### ■ Motor/voltage supply

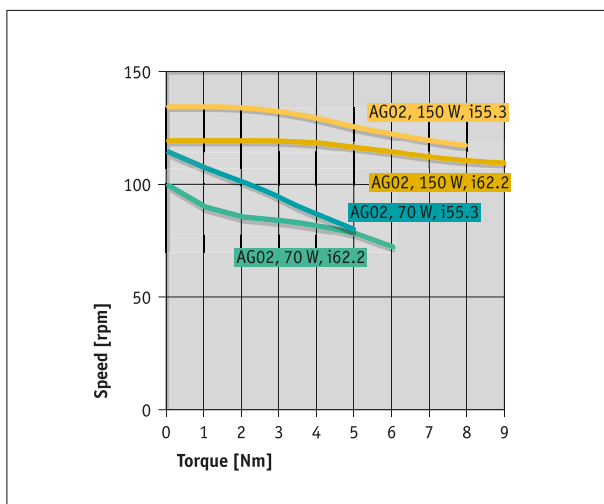
Signal	PIN
Motor+/+UB	1
nc	2
Motor-/0 V	3

#### ■ Encoder

LD24	LD5	PIN
/B	/B	A
nc	+SUB (Sensor)	B
/I	/I	C
I	I	D
A	A	E
nc	nc	G
/A	/A	F
B	B	H
nc	nc	J
GND	GND	K
nc	SGND (sensor)	L
+UB	+UB	M

digital	analog unipolar	Analog bipolar	PIN
Clockwise rotation plus	Enable plus	Enable plus	1
Clockwise rotation ground	Enable ground	Enable ground	2
Counter-clockwise rotation plus	cw/ccw plus	nc	3
Counter-clockwise rotation ground	cw/ccw ground	nc	4
Fast/creep plus	Analog 0 ... +10 V	Analog 0 ... +10 V	5
Fast/creep ground	Analog ground	Analog ground	6
nc	nc	nc	7
nc	nc	nc	8

### Performance curve



### Order

#### ■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
Gear ratio	A 55.3 62.2	i = 55.3 i = 62.2	
motor performance	B 150W 70W-M	150 W 70 W	only with SD, SUP or SBP motor control
shaft design/diameter	C KR/14 N/10	clamping ring ø14 mm keyway, ø10 mm	with i=55.3, other transmissions on request
Torque pin	D B OD	lug without	incl. elastomer bushing

Feature	Ordering data	Spezifikation	Additional information	
position of electrical connection	<b>E</b>	LR	radial	with external motor control
		LA	axial	with integrated motor control
position encoder	<b>F</b>	LD24	incremental 1000 pulses	+10 ... +30 V DC
		LD5	incremental 1000 pulses	+5 V DC ±5 %
		OP	push-pull with inverting	+10 ... +30 V DC
		0	without	"only with LR "electrical connection position ""
PWM motor control	<b>G</b>	OMS	without	only with 150 W motor power
		SD	digital input	
		SUP	analog input, unipolar 0 ... +10 V	
		SBP	Analog input, bipolar -10 ... +10 V	

### ■ Order key

AG02 inkremental



#### Scope of delivery:

AG02 inkremental, Quick Start Guide



#### Accessories you can find:

Cable extension KV02S0	<a href="http://www.siko-global.com">www.siko-global.com</a>
Cable extension KV08S0	<a href="http://www.siko-global.com">www.siko-global.com</a>
Cable extension KV08S0	<a href="http://www.siko-global.com">www.siko-global.com</a>
Motor control module MS02	<a href="http://www.siko-global.com">www.siko-global.com</a>
Overview, Mating connector	<a href="http://www.siko-global.com">www.siko-global.com</a>
Mating connector, Encoder, 12-pole, socket	Order key 76572
Mating connector, Encoder, 12-pole, angle socket	Order key 79666
Mating connector, Motor control module, 8-pole, socket	Order key 81351
Mating connector, Motor/voltage supply, 3-pole, angle socket	Order key 81363
Mating connector, Motor/voltage supply, 3-pole, socket	Order key 82182