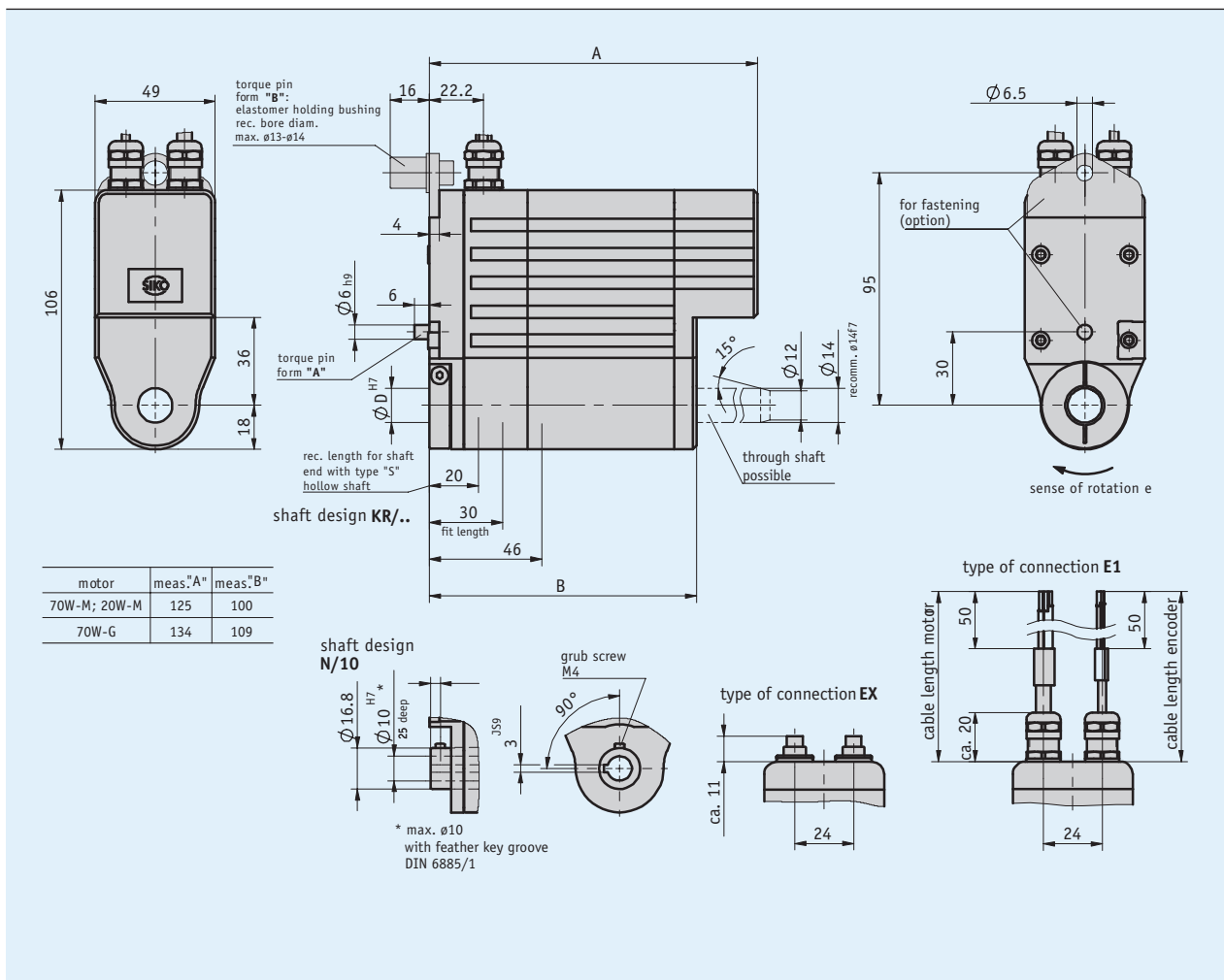
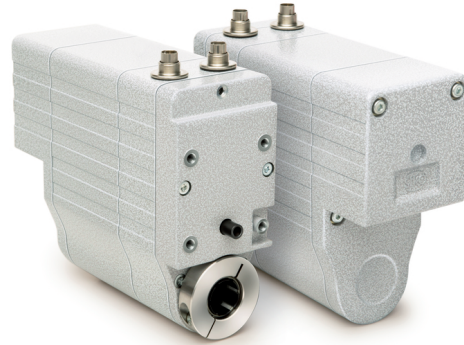


### Profile

- Easy mounting
- Through hollow shafts up to max.  $\varnothing 14$  mm possible
- Integrated analog absolute position encoder
- Electrical connection via cable or connector



### Mechanical data

Feature	Technical data	Additional information
Shaft	black-finished steel	
Housing	aluminum, powder coated zinc die cast	
Nominal torque/rated speed	1.1 Nm, 430 rpm	i = 12.4 (70 W motors)
	2.1 Nm, 225 rpm	i = 24 (70 W motors)
	4.2 Nm, 110 rpm	i = 48 (70 W motors)
Operating mode	S3 intermittent operation: 25 % DC, 10 min.	EN 60034-1
Weight	~1.5 kg	

### Electrical data

#### Motor

Feature	Technical data	Additional information
Operating voltage	0 ... 24 V DC	70 W motors
Power input	70 W	
Rated current	2.9 A ±10 % (70W-M)	3.2 A max. load current
	4.1 A ±10 % (70W-G)	4.5 A max. load current
Type of connection	2x M9 plug connectors	4-pole, 1x pin; 3-pole, 1x pin

#### Encoder potentiometer

Feature	Technical data	Additional information
Power rating	2 W at 70 °C	P10 position encoder
Resistance tolerance	±5 %	P10 position encoder
Standard terminal resistance	0.2 % or 1 Ω	P10 position encoder (always the higher value)
Linearity tolerance	±0.25 %	P10 position encoder

#### Transducer, power output

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	at ≤500 Ω load

#### Transducer, voltage output

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	$I_{load} \leq 10$ mA

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 70 °C	
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	IP63	EN 60529, with mating connectors mounted
Shock resistance	500 m/s <sup>2</sup> , 11 ms	EN 60068-2-27
Vibration resistance	100 m/s <sup>2</sup> , 50 Hz	EN 60068-2-6

## Pin assignment

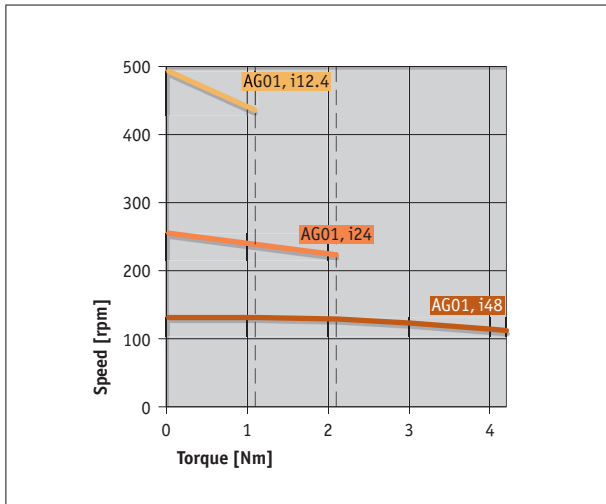
### ■ Motor

Signal	EX	E1
+	1	M1, white imprinted
+	2	
-	3	M2, white imprinted
-	4	

### ■ Potentiometer

Signal	MWU	MWI	EX	E1
Po	+24 V DC	I+	1	brown
S	Uout		2	green
Pe	GND	I-	3	white

## Performance curve



### Order

#### Ordering table

Feature	Ordering data	Specification	Additional information
Gear ratio	48	i = 48	
	24	i = 24	
	12.4	i = 12.4	
Motor performance	70W-M	24 V DC	
	70W-G	24 V DC	
		others on request	
Shaft design/diameter	KR/14	clamping ring, ø14 mm	
	KR/12	clamping ring, ø12 mm	
	N/10	keyway	only for type S hollow shaft
Hollow shaft type	S	blind hole	
	D	full-length	
Torque pin	A	bolt, ø6 mm	
	B	lug I	incl. elastomer bushing
Type of connection	E1	open cable	
	EX	socket on the device	
Motor cable length	02.0	in m	
		others on request	
Encoder cable length	02.0	in m	
		others on request	
Position encoder	P10	potentiometer 10 kΩ	10 helipot potentiometer
	MWI	transducer 4 ... 20 mA	10 helipot potentiometer
	MWU	transducer 0 ... 10 V	10 helipot potentiometer
		others on request	
Potentiometer transmission	...	1 ... 128 max.	only for P10, MWI and MWU encoders
Sense of rotation	i	clockwise ascending values	only for MWI or MWU encoders
	e	counter-clockwise ascending values	only for MWI or MWU encoders

\* Calculation of potentiometer transmission ratio: for instance, if 120 revolutions are required for one adjustment, then the transmission ratio of 12 must be indicated for the 10 helipot potentiometer. In practice: number of necessary revolutions/10 (10 helipot potentiometer) = potentiometer transmission ratio

#### Order key

AG01 Analog -  -  -  -  -  -  -  -  -  -  -  -

A      B      C      D      E      F      G      H      I      J      K

**Scope of delivery:** AG01 Analog, Mounting instructions

#### Accessories:

Cable extension KV0350

[www.siko-global.com](http://www.siko-global.com)

Cable extension KV0450

[www.siko-global.com](http://www.siko-global.com)

Motor control module MS02

[www.siko-global.com](http://www.siko-global.com)

Electronic display MA50

[www.siko-global.com](http://www.siko-global.com)

Mating Connector Overview

[www.siko-global.com](http://www.siko-global.com)

Mating connector, motor, 4-pole, socket

Order key 83447

Mating connector, potentiometer, 3-pole, socket

Order key 81487

Mating connector, potentiometer, 3-pole, angle socket

Order key 82366