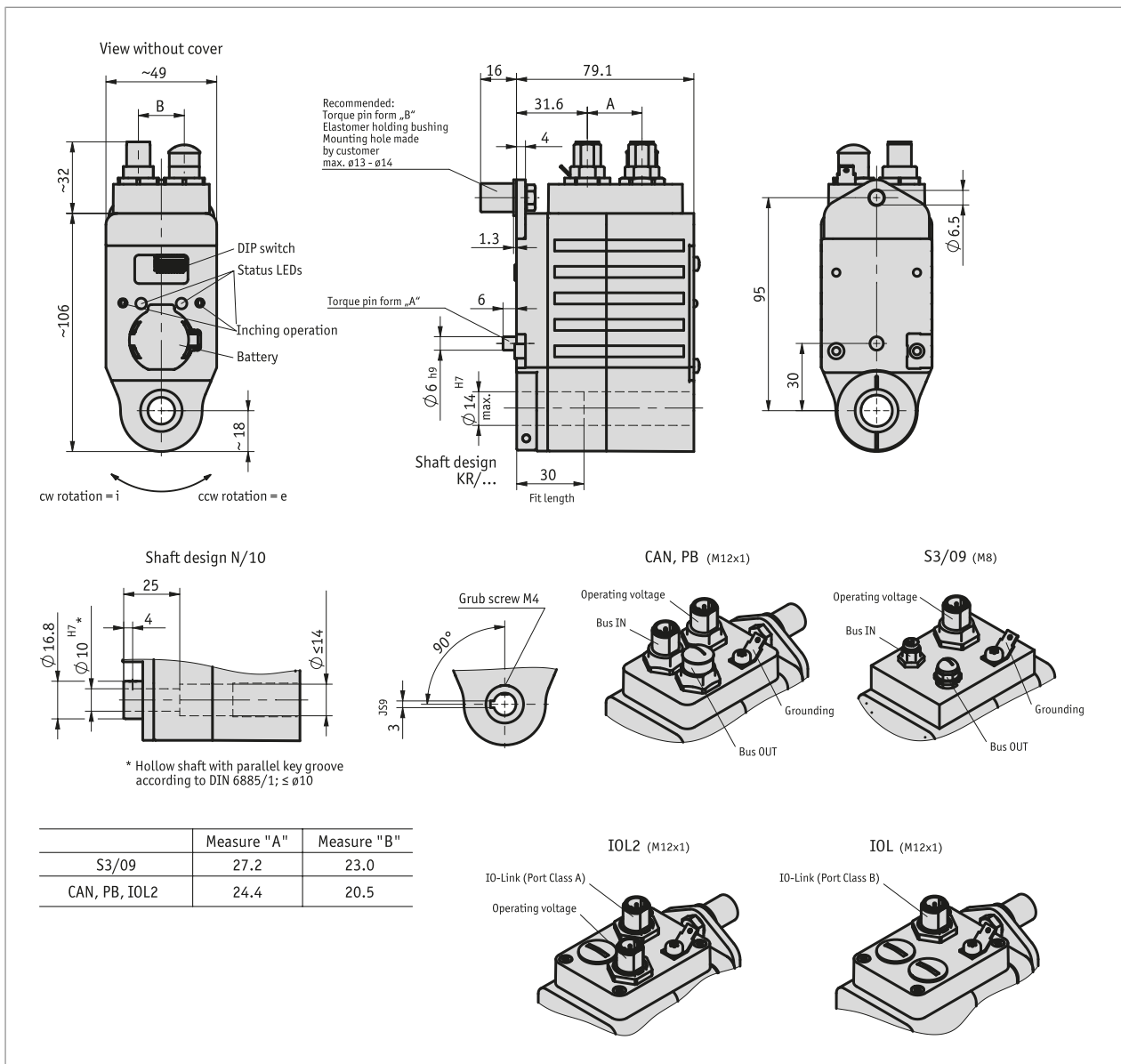


Profile

- Space-saving, easy mounting
- Through hollow shafts up to max. $\varnothing 14$ mm
- Brushless 50 W, 24 V EC motor with long service life
- Integrated power and control electronics with inverse polarity and overload protection
- Integrated absolute position encoder on the output shaft
- interfaces CANopen, Profibus-DP, RS485/SIKONETZ5 or IO-Link
- IO-Link optionally with 1 cable or 2 cable interface
- Industry 4.0 ready



Mechanical data

Feature	Technical data	Additional information
shaft	black-finished steel	
Housing	aluminum/zinc die cast	Electrostatic discharge (ESD)
Nominal torque/rated speed	3.2 Nm at 100 min ⁻¹	i = 48
	1.6 Nm at 200 min ⁻¹	i = 24
Operating mode	S3 intermittent operation: 25 % DC, 10 min.	EN 60034-1
Weight	~1.2 kg	

Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC ±10 %	reverse polarity protected, output stage
	24 V DC ±10 %	reverse polarity protected, control (only CAN, PB, S3/09, IOL, IOL2)
Power input	58 W	output stage
Battery	CR2477N, 3 V lithium, 950 mAh	
Battery service life	~5 Year(s)	depending on ambient conditions
Parameter storage	10 ⁵ cycles	also applies to calibration operations
Rated current	2.4 A ±10 %	at max. adm. torque (output stage)
	<100 mA at 24 V DC (control)	only CAN, PB, S3/09, IOL, IOL2
Status display	2 LEDs	
Keys	touch keys	for setting-up mode
Bus connection	CANopen	galvanic isolation of interface
	Profibus-DP	galvanic isolation of interface
	SIKONETZ5	galvanic isolation of interface
	IO-Link, IOL	galvanic isolation between operating voltage, output stage and control
	IO-Link, IOL2	galvanic isolation between operating voltage, output stage and control
Type of connection	2x M12 plug connectors (A-coded)	5-pole, 1x socket, 1x pin (CAN)
	2x M12 plug connectors (B-coded)	5-pole, 1x socket, 1x pin (PB)
	2x M8-plug connectors	4-pole, 1x socket, 1x pin (S3/09)
	1x M12-plug connector (A-coded)	4-pole, 1x pin (CAN + PB + S3/09 + IOL2)
	1x M12-plug connector (A-coded)	5-pole, 1x pin (IOL + IOL2)
	grounding via flat connector 6.3 mm	

System data

Feature	Technical data	Additional information
Resolution	1600 Increments/revolution	
System accuracy	±0.8 °	unidirectional
Repeat accuracy	±1 Increment(s)	unidirectional / bidirectional
Travel range	±8182 rotation(s)	
Failure rate	21.4 Year(s)	CAN, at 60° C (MTBF) according to SN 29500
	21.2 Year(s)	PB, at 60° C (MTBF) according to SN 29500
	21.9 Year(s)	S3/09, at 60° C (MTBF) according to SN 29500
	26.8 Year(s)	IOL, at 60° C (MTBF) according to SN 29500
	26.9 Year(s)	IOL2, at 60° C (MTBF) according to SN 29500

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 45 °C	
Storage temperature	-20 ... 60 °C	
Height above NHN (standard elevation zero)	2000 m	
Relative humidity		condensation inadmissible
EMC	EN 61800-3, second environment	interference resistance / immission, shielded line required
	EN 61800-3, C3	emitted interference / emission
Protection category	IP50 / IP54 / IP65	EN 60529, with mating connector fitted
Shock resistance	500 m/s ² , 11 ms	EN 60068-2-27
Vibration resistance	≤100 m/s ² , 5 ... 150 Hz	EN 60068-2-6

pin assignment

■ Operating voltage

Assignment	PIN
+UB	1
GND	2
PE	3

■ S3/09

Signal	PIN
DÜB/TxRx-	1
DÜB/TxRx+	2
nc	3
SGND	4

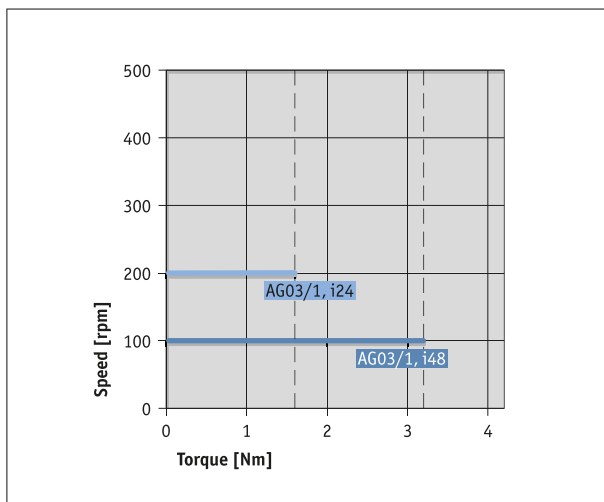
■ PB, CAN

PB	CAN	PIN
nc	nc	1
BUS A	nc	2
nc	CAN_GND	3
BUS B	CAN_H	4
nc	CAN_L	5

■ IOL, IOL2

IOL	IOL 2	PIN
L+ (+UB control)	L+ (+UB control)	1
P24 (+UB output stage)	nc	2
L- (GND control)	L- (GND control)	3
C/Q	C/Q	4
N24 (GND output stage)	nc	5

Performance curve



Industry 4.0

In most cases, data exchange with the actuators is limited to the exchange of process data. In addition to the process data, intelligent drives provide additional information that can be evaluated for condition monitoring up to predictive maintenance:

Process data	Smart Value	Smart Function
Actual position	Temperature	Overload, ambient temperature
"Target position"	current	Torque, overload
Speed	Volatage load Voltage control	Voltage drop, line break
	On/Off time	Operating time
	Battery voltage	Battery change planning

Order

■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
Gear ratio	A 48	i = 48	
	24	i = 24	
Protection category	B IP50	IP50	
	IP54	IP54	
	IP65	IP65	

Feature	Ordering data	Spezifikation	Additional information	
shaft design/diameter	C	KR/14	clamping ring ø14 mm	
		KR/12	clamping ring, ø12 mm	
		N/10	keyway JS9 DIN 6885/1 ø10 mm	
Torque pin	D	A	bolt, ø6 mm	
		B	lug	incl. elastomer bushing
fieldbus	E	CAN	CANopen	
		PB	Profibus-DP	Profidrive
		S3/09	RS485/SIKONETZ5	
		IOL	IO-Link, 1 plug version	
		IOL2	IO-Link, 2 plug version	

■ Order key



Scope of delivery:
AG03/1, Quick Start Guide



Accessories you can find:

- Easy touch control ETC5000
- Cable extension KV04S1
- Cable extension KV04S2
- Programming software ProTool DL
- Overview, Mating connector
- Mating connector, Profibus IN, 5-pole, angle socket
- Mating connector, Profibus OUT, 5-pole, angular pin
- Mating connector, CANopen IN, IOL IN, IOL2 IN, 5-pole, angle socket
- Mating connector, CANopen OUT, 5-pole, angular pin
- Mating connector, Operating voltage, 4-pole, angle socket
- Mating connector, Operating voltage, 4-pole, socket
- Mating connector, Profibus IN, 5-pole, socket
- Mating connector, Profibus OUT, 5-pole, pin
- Mating connector, CANopen IN, IOL IN, IOL2 IN, 5-pole, socket
- Mating connector, Bus IN, 4-pole, socket
- Mating connector, bus OUT, 4-pole, pin
- Mating connector, CANopen OUT, 5-pole, pin

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