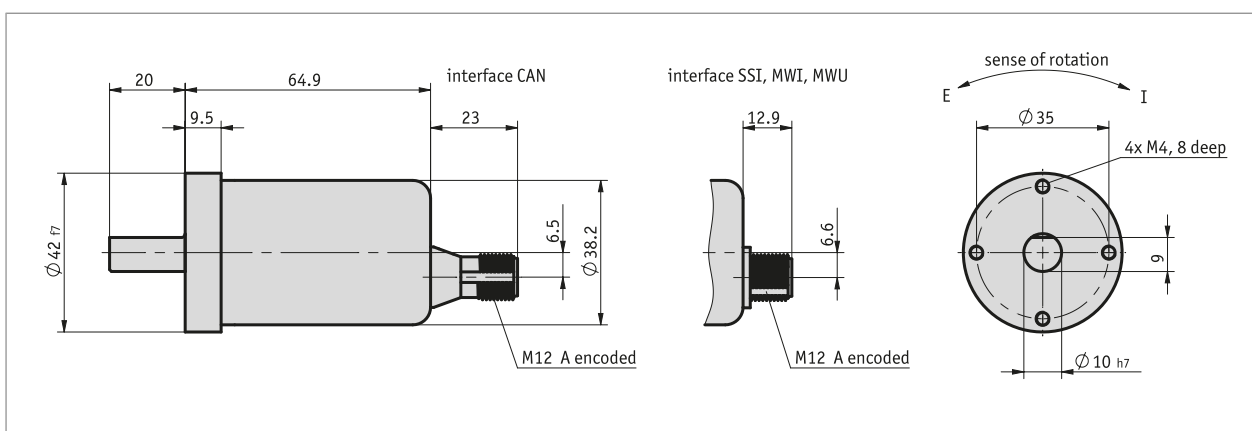


### Profile

- Heavy-duty design in stainless steel
- Compact design (42 mm diameter)
- IP6K9K, IP68 protection class
- Resistant to salt spray and acids
- CANopen interface, SSI, analog
- Multi-turn without battery
- High shaft loadability of up to 270 N
- 16 bit multi-turn (65536 revolutions)
- 13 bit single-turn (8192 revolutions)



### Mechanical data

Feature	Technical data	Additional information
shaft	rustproof stainless steel	
Flange	rustproof stainless steel	
Housing	rustproof stainless steel	
Speed	$\leq 12000 \text{ min}^{-1}$	
Starting torque	$\leq 4 \text{ Ncm}$ at 25 °C	
Shaft load rating	$\leq 270 \text{ N}$ , axial $\leq 270 \text{ N}$ , radial	
Weight	$\sim 0.35 \text{ kg}$	

### Electrical data

#### ■ Transducer, power output

Feature	Technical data	Additional information
Operating voltage	8 ... 32 V DC	4 ... 20 mA
Current consumption	20 mA @ 24 V (idling) typical	4 ... 20 mA
Linearity	0.15 %	4 ... 20 mA
Load	$< 500 \Omega$ , $R_{\text{Load}}$	4 ... 20 mA, load against ground GND
Accuracy	$\pm 0.09^\circ$	singleturn, 4 ... 20 mA
Starting time	$< 500 \text{ ms}$	4 ... 20 mA
Settling time	32 ms	4 ... 20 mA

### ■ Transducer, voltage output

Feature	Technical data	Additional information
Operating voltage	8 ... 32 V DC	0 ... 10 V
Current consumption	15 mA, typical	0 ... 10 V
Linearity	0.15 %	0 ... 10 V
Load	>5 k $\Omega$ , R <sub>Load</sub>	0 ... 10 V, load against ground GND
Accuracy	$\pm 0.09^\circ$	singleturn, 0 ... 10 V
Starting time	<500 ms	0 ... 10 V
Settling time	32 ms	0 ... 10 V

### ■ CANopen interface

Feature	Technical data	Additional information
Operating voltage	9 ... 30 V DC	reverse polarity protection
Power input	$\leq 1.2$ W	
Interface	according to ISO 11898, galvanically isolated	CANopen (DS406)
Address	adjustable	via SDO or Layer Setting Service (LSS)
Baud rate	$\leq 1$ Mbit/s	
Cycle time	$\geq 1$ ms	

### ■ SSI interface

Feature	Technical data	Additional information
Operating voltage	4.5 ... 30 V DC	reverse polarity protection
Power input	$\leq 1$ W	
SSI clock speed input	100 kHz ... 2 MHz	
Interface	line driver to RS422	
Cycle time	$\geq 25$ $\mu$ s	

## System data

Feature	Technical data	Additional information
Resolution	13 bit, (analog output)	over the programmed measuring range
	13 bit, (singleturn)	current/voltage output
	12 bit, (singleturn)	CANopen, SSI
Measuring range	$\geq 11.5^\circ$	
	$\leq 1$ rotation(s)	singleturn
	$\leq 65536$ rotation(s)	multiturn
	16 rotation(s)	factory setting (multiturn)

## Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 85 °C	
Storage temperature	-40 ... 85 °C	
Relative humidity	98 %	condensation inadmissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
Protection category	IP68	EN 60529
	IP6K9K	ISO 20653
Shock resistance	$\leq 3000$ m/s <sup>2</sup> , 6 ms	EN 60068-2-27
Vibration resistance	$\leq 300$ m/s <sup>2</sup> , 10 ... 1 kHz	EN 60068-2-6

### pin assignment

#### ■ MWI/MWU interface

Signal	PIN
I <sub>OUT</sub> /U <sub>OUT</sub>	1
GND	2
+UB	3
Set 2	4
Set 1	5

#### ■ CAN interface

Signal	PIN
CAN_GND	1
+UB	2
GND	3
CAN_H	4
CAN_L	5

#### ■ SSI interface

Signal	PIN
GND	1
+UB	2
SSI clock+	3
SSI clock-	4
SSI data+	5
SSI data-	6
Calibration input	7
Sense of rotation	8

### Order

#### ■ Ordering table

Feature	Ordering data	Spezifikation	Additional information	
Interface	A	CAN	CANopen (DS406)	
		MWI	4 ... 20 mA	
		MWU	0 ... 10 V	
		SSI/B	SSI binary	
		SSI/G	SSI gray	
number of revolutions	B	1	singleturn	
		8192	13 bit	only SSI or CAN
		65536	16 bit	only MWI or MWU

#### ■ Order key



**Accessories you can find:**  
 Measurement display MA10/4  
 Measurement display MA50

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