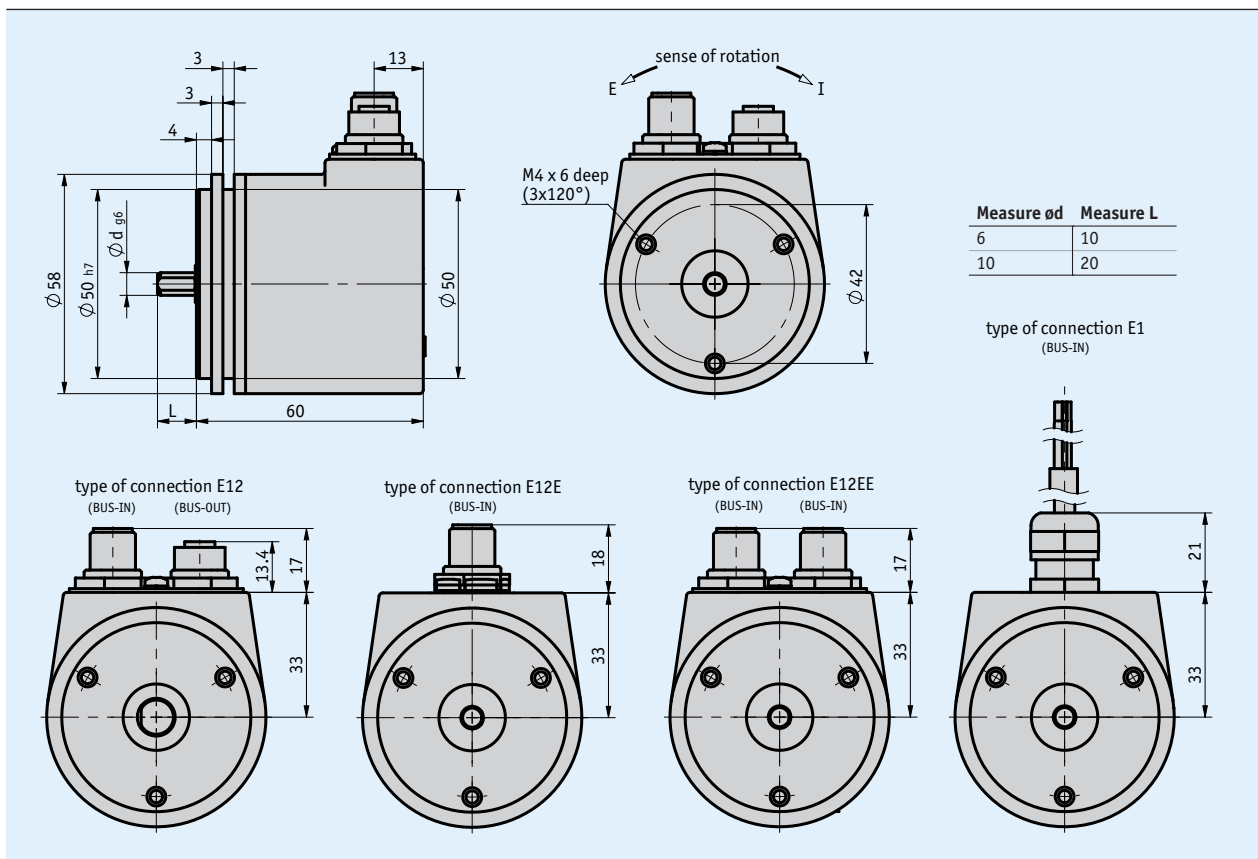


### Profile

- Absolute redundant safety rotary encoder
- Interface CANopen Safety or CANopen redundant
- Suitable for applications up to Performance Level PLD
- Salt-spray resistant housing available
- High electro-magnetic compatibility
- Available with special swing ring functionality



### Mechanical data

Feature	Technical data	Additional information
Shaft	stainless steel	
Flange	aluminum	
Housing	die-cast aluminum	CDP-coated
Speed	$\leq 6000$ rpm	IP65
	$\leq 3000$ rpm	IP67
Moment of inertia	$\leq 8$ gcm <sup>2</sup>	
Starting torque	$\leq 2$ Ncm	at 20 °C
Shaft load rating	$\leq 80$ N	radial
	$\leq 40$ N	axial
Cable sheath	PVC	E1 connection type
Cable bending radius	>25 mm	E1 connection type, static
Mounting type	servo-flange	
Weight	~0.35 kg	

### Electrical data

Feature	Technical data	Additional information
Operating voltage	8 ... 36 V DC	reverse polarity protected
Current consumption	20 mA	at 36 V
	28 mA	at 24 V DC
	76 mA	at 8 V
Power input	≤800 mW	without load
Status display	2x tricolor LEDs (red/green/yellow)	device status/CAN status
Power rating	±60 V	CAN interface
Interface	CANopen (Profile DS406)	according to ISO 11898, not galvanically isolated
	CANopen Safety (EN 50325-5)	according to ISO 11898, not galvanically isolated
Address	1 ... 127	node ID
Baud rate	20 kBit/s	
	50 kBit/s	
	125 kBit/s	
	250 kBit/s	
	500 kBit/s	
	800 kBit/s	
	1 MBit/s	
Cycle time	<1.5 ms	
Starting time	<150 ms	
Parameter	as specified by CiA DS-301, DS-406, DS-303 Part 3, EN 50325-5	CANopen Safety
	gemäß CiA DS-301, DS-406, DS-303 Part 3	CANopen
Type of connection	1x M12 connector (A-coded)	5-pole, 1x pin (E12E connection type), encoder internally connected
	2x M12 connector (A-coded)	5-pole, 1x pin; 1x socket (E12 connection type), encoder internally connected
	2x M12 connector (A-coded)	5-pole, 2x pin (E12EE connection type), encoder not internally connected
	open cable end	type of connection E1, encoder internally connected

### System data

Feature	Technical data	Additional information
Scanning	magnetic	
Resolution	14 Bit	singleturn, 16384 steps/revolution
Measuring range	1 revolution(s)	singleturn
	4096 revolution(s)	
Failure rate	206.1 year(s)	at 40 °C (MTTF acc. to EN/IEC 61709 (SN29500))
	580 year(s)	at 60 °C (MTTFd) each channel
	FIT=1,0E-09	at 60 °C (PFH)
Error detection	77 %	at 60 °C (DCavg) according to ISO13849-1, Appendix E.2

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 85 °C	
Storage temperature	-40 ... 85 °C	
Relative humidity	100 %	condensation admissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
Protection category	IP65	EN 60529 in the installed condition
	IP67	EN 60529
Salt spray test	severity level 4	EN 60068-2-52 (ambient condition SN)
Shock resistance	500 m/s <sup>2</sup> , 11 ms	EN 60068-2-27, half-sine, 3 axes (+/-), each 3 shocks
Vibration resistance	100 m/s <sup>2</sup> , 10 ... 2000 Hz	EN 60068-2-6, 3 axes, each 10 cycles

### Pin assignment

#### ■ E12, E12E, E12EE

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

#### ■ E1

Signal	E1
CAN_GND	white
+UB	brown
GND	green
CAN_H	yellow
CAN_L	gray

### Order

#### ■ Ordering table

Feature	Ordering data	Specification	Additional information
Interface/protocol	CAN	CANopen	
	CANs	CANopen Safety	
Type of connection	E1	open cable end	
	E12	bus IN/bus OUT	2x M12, 5-pole A-coded, fieldbus and power supply internally connected
	E12E	bus IN	1x M12, 5-pole A-coded, fieldbus and power supply internally connected
	E12EE	bus IN/bus IN	2x M12, 5-pole A-coded, fieldbus and power supply isolated
Number of revolutions	1	singleturn	
	4096	12 bit	multiturn
Shaft diameter x length	10x20	ø10 mm, length 20 mm	
	6x10	ø6 mm, length 10 mm	
Ambient conditions	S	standard	
	SN	salt-spray resistant housing	
Protection category	IP65	IP65	
	IP67	IP67	
Cable length L	...	01.0, 02.0, 03.0, 05.0, 10.0	
	OK	without cable	

#### ■ Order key

WV58MR -    -    - 16384 -    -    -    -    - M2 - R -    - SW

A   
 B   
 C   
 D   
 E   
 F   
 G

**Scope of delivery:** WV58MR, Quick Start Guide

#### Accessories:

Cable extension KV0550  
 Mating Connector Overview  
 Mating connector, 5-pole, socket

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