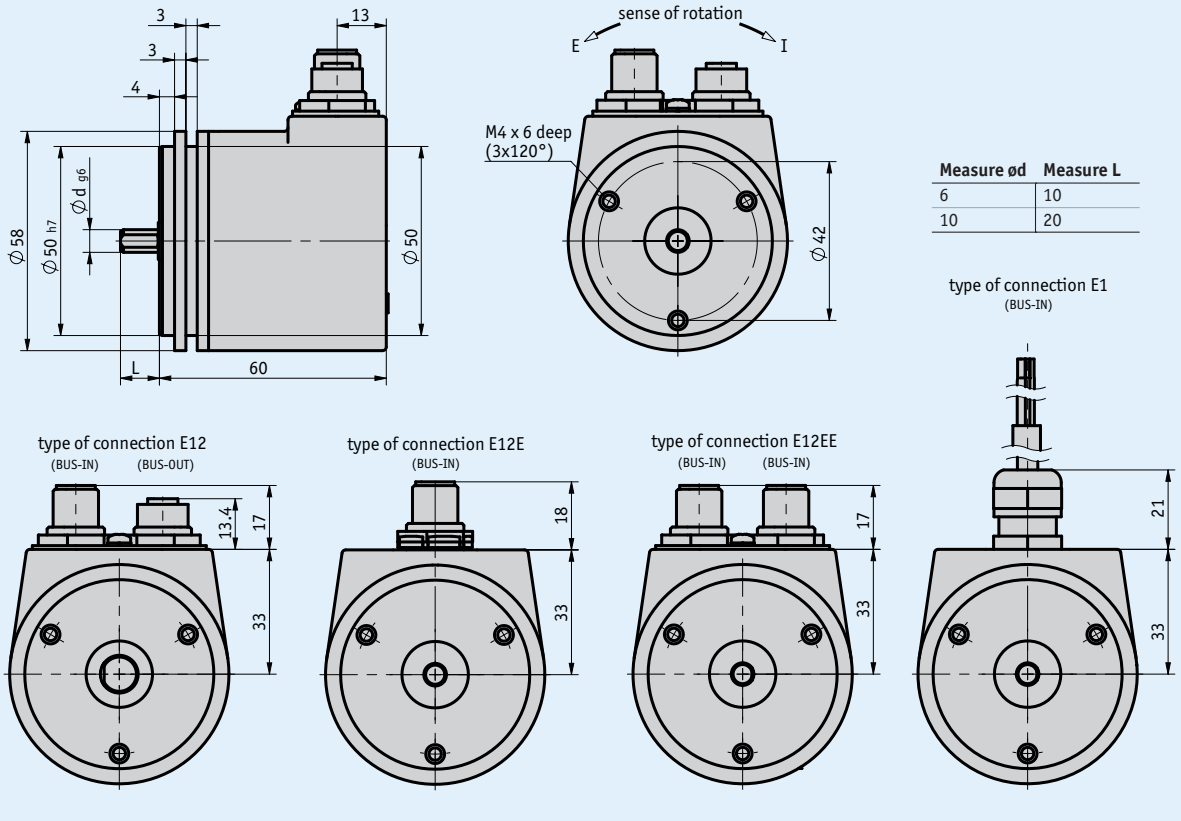
Absolute encoder WV58MR
Absolute redundant safety rotary encoder

Profile

- Absolute redundant safety rotary encoder
- interface CANopen Safety or CANopen redundant
- suitable for applications up to Performance Level PLd
- Also available in a salt-spray resistant housing
- 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	
Speed	≤6000 rpm	IP65
	≤3000 rpm	IP67
Moment of inertia	≤8 gcm²	
Starting torque	≤2 Ncm	
Shaft load rating	≤80 N	radial
	≤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	
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
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	single-turn
Measuring range	1 revolution(s)	single-turn
	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

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	A	CANopen	
	CANs		CANopen Safety	
Type of connection	E1	B	cable	
	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	C	single-turn	
	4096		12 bit	multi-turn
Shaft diameter x length	10x20	D		
	6x10			
Protection category	IP65	E	standard	
	IP67			
Cable length L	...	F	01.0, 02.0, 03.0, 05.0, 10.0	
	OK		without cable	

Order key

WV58MR - [A] - [B] - 16384 - [C] - [D] - S - [E] - M2 - R - [F] - SW

Scope of delivery: *WV58MR*