

AGE60 ABSOLUTE ENCODER WITH INDEPENDENT CAN SIGNALS**Part No.: 2107794****DESCRIPTION**

Encoder for an absolute angle measurement, based on wear free HALL-sensorics. Redundant signal processing and output is done by two independent CAN controller. For this model you have a usable range of +/- 90 degrees, but this value is customizable, because there is no stop on plus or minus 90°. A rentable and cost-effective use in harsh environments is guaranteed by an aluminum housing, a stainless steel shaft, a PUR insulated cable and the use of special sealing to cover the back.

TECHNICAL DATA

CONSTRUCTION AND MECHANICAL DATA

DETENT ANGLE	±90° , without stop
DETENT GRADUATION	n.a.
MOUNTING	2x M5 (10 mm thread length)
PROTECTION CLASS	IP67
DETENT MECHANISM	n.a.
DETENT TORQUE WITH INDEX	n.a.
BEARING	ball bearing
ACTIVATING BUTTON	n.a.
ACTUATING PATH	n.a.
FASTENING TORQUE MAX.	tbd.
MAX. LOAD ON SHAFT	axial: tbd. radial: tbd.
LIFE EXPECTANCY	30 million revolutions
REVOLUTION SPEED MAX.	tbd.
SHAFT LENGTH	acc. drawing
SHAFT DESIGN	acc. drawing
PUSHBUTTON / SWITCHING FUNCTION	n.a.

ELECTRICAL DATA IN THE OPERATING TEMPERATURE RANGE

OPERATION VOLTAGE	7,0 to 18,0 V DC
CURRENT CONSUMPTION	typ. 70 mA (max. 90 mA)
SWITCHING VOLTAGE MAX.	n.a.
SWITCHING CURRENT MAX.	n.a.
RESOLUTION	14 bit / revolution 10 bit / 90°
OUTPUT SIGNAL	2 * CAN, 250 kbaud
INDICATOR OF REVOLUTION DIRECTION	n.a.
POLARITY PROTECTION	yes
IMPULSES PER OUTPUT	n.a.
CONNECTOR	open wire

ENVIRONMENTAL CONDITIONS

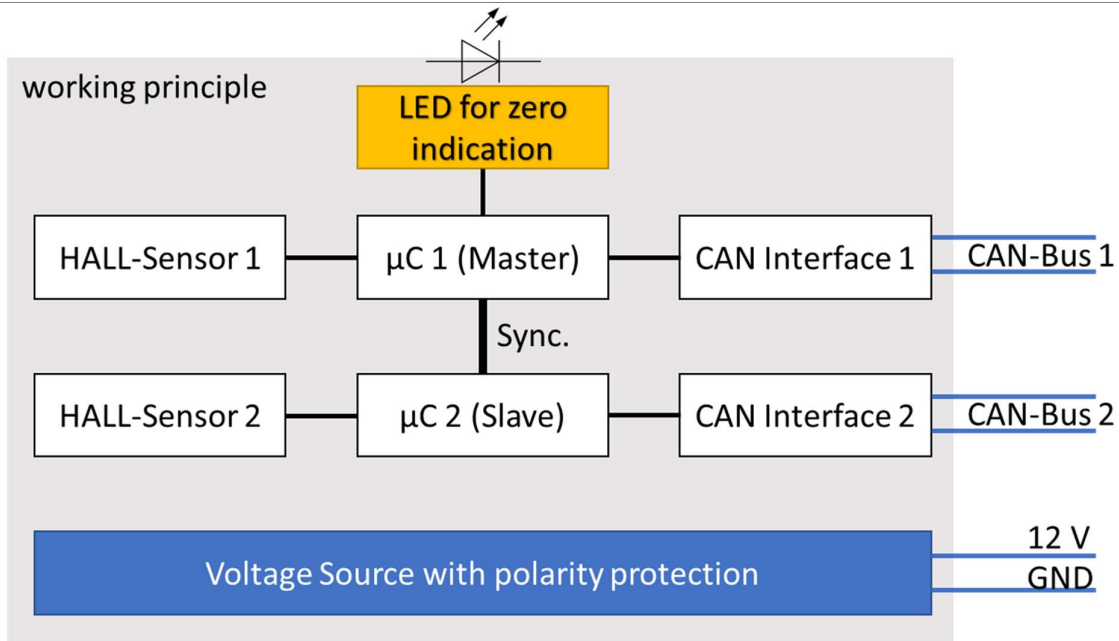
OPERATING TEMPERATURE	-40 °C to +85 °C
STORAGE TEMPERATURE	-40 °C to +105 °C
HUMIDITY MAX.	95 % RH condensing (48h tested)

OTHER

CABLE	PUR insulated cable with 6 wires AWG 21 ca. 700 mm
-------	---

DRAWINGS / OTHER INFORMATION

WORKING PRINCIPLE



CONNECTION DIAGRAMM (END OF CABLE)

YELLOW	CAN2-L	CAN-Low
GREEN	CAN2-H	CAN-High
BROWN	GND	ground (supply and CAN)
WHITE	+Ub	supply
ROSE	CAN1-L	CAN-low
GREY	CAN1-H	CAN-High

WORKING PRINCIPLE

CAN2.0 WITH 29-BIT ID:

250 KBAUD (MAX. 500 KBAUD)

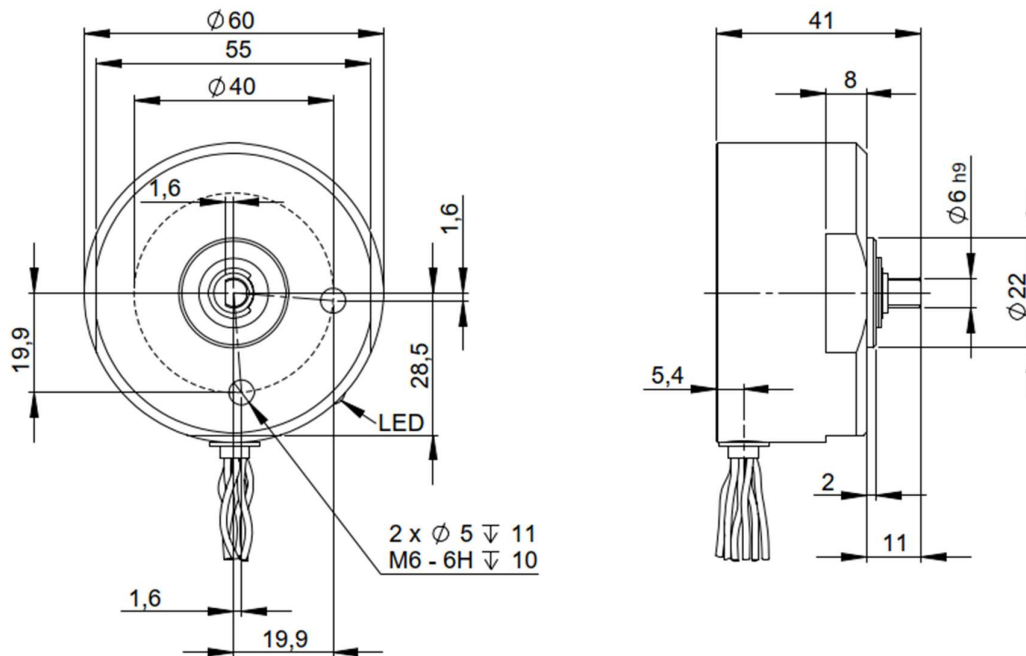
TRANSCEIVER: CF151 (BOSCH) OR SIMILAR

CHOKER: B82799 OR SIMILAR

TERMINATION: 120 OHMS

SENDING CYCLE: CA. 15 MS

DRAWING



units in mm

CAN-BUS-ID

CAN-BUS A	CAN-BUS B	ID hex	Symbol-Name	DLC	Byte	Byte-Funktion	Bit.Nr.	Function	Issue area	Update Rate
A	B	0CFF0200	Running set point	8	0	Mark 1			0x 01	15 ms +/- 2ms
					1	Zero position indicator			0x 05 = off 0x FA = on	
					2	Running set point lane low			0 - 1023	
					3	Running set point lane high				
					4	Message counter low	12 Bit synchron		12-Bit counter	
					5	Message counter high				
					6	Reserve		0xFF		
					7	Mark_2		0x FF		
A	B	0CFF0203	Adress	8	0	Mark_1			0x 03	30 ms +/- 2ms
					1	Digital signals	0	DIN_1	0 = not controlled 1 = controlled	
							1	DIN_2		
							2	DIN_3		
							3	DIN_4		
							4	DIN_5		
							5	DIN_6		
							6			
					7		0			
					2	Mark_2		0x FF		
					3	Mark_3 CAN-BUS A Ubat CAN-BUS B		Current in digit. 1 digit = ca. 0,11V	0x 00	
									0 - 255	
					4	Diagnostic_1	0	App data are not skripted		
							1	App data are false		
							2	Product data are not skripted		
							3	Communication error from sensor		
							4	Magnetic field to weak		
							5	Magnetic field to strong		
							6	Different error from sensor		
							7	Reserve		
					5	Diagnostic_2	0	Transmitter bus off		
							1	Transmitter error active		
							2	Transmitter error passive		
							3	Receiver error active		
							4	Receiver error passive		
							5	CAN_Overflow		
							6	RS232 error		
							7	HW diff. error		
					6	Diagnostic_3	0	Momentarily current under limit		
							1	Momentarily current over limit		
							2	Permanently current under limit		
							3	Permanently current over limit		
4	Reserve									
5	WDT Reset									
6	Reserve									
7	Reserve									
7	Mark_4			0x FF						
CAN-BUS A	CAN-BUS B	ID hex	Symbol-Name	DLC	Byte-Funktion					
A	B	0CFF0206	EBE 1	8	used to compare or read for diagnostic					
A	B	0CFF0209	EBE 2	8	used to compare or read for diagnostic					

DISCLAIMER

The information contained in this document is for general guidance only. The user is responsible for determining the suitability of the technical information referred to herein for his application. On delivery of the component, EBE is only obliged to implement those properties set out and agreed upon in this technical data sheet. Further properties are not included. No guarantee is given. The component has been designed for installation in our customer's products. Manufacturer of the resulting product and consequent liability according to the Product Liability Act lies with the customer.

REVISION

REVISION	DATE	DESCRIPTION
1.0	17.04.2023	Initial Data sheet AGE60-W90-CAN2-6E Change in Storage Temperature (125°C -> 105°C) and Humidity 100% -> 95%