

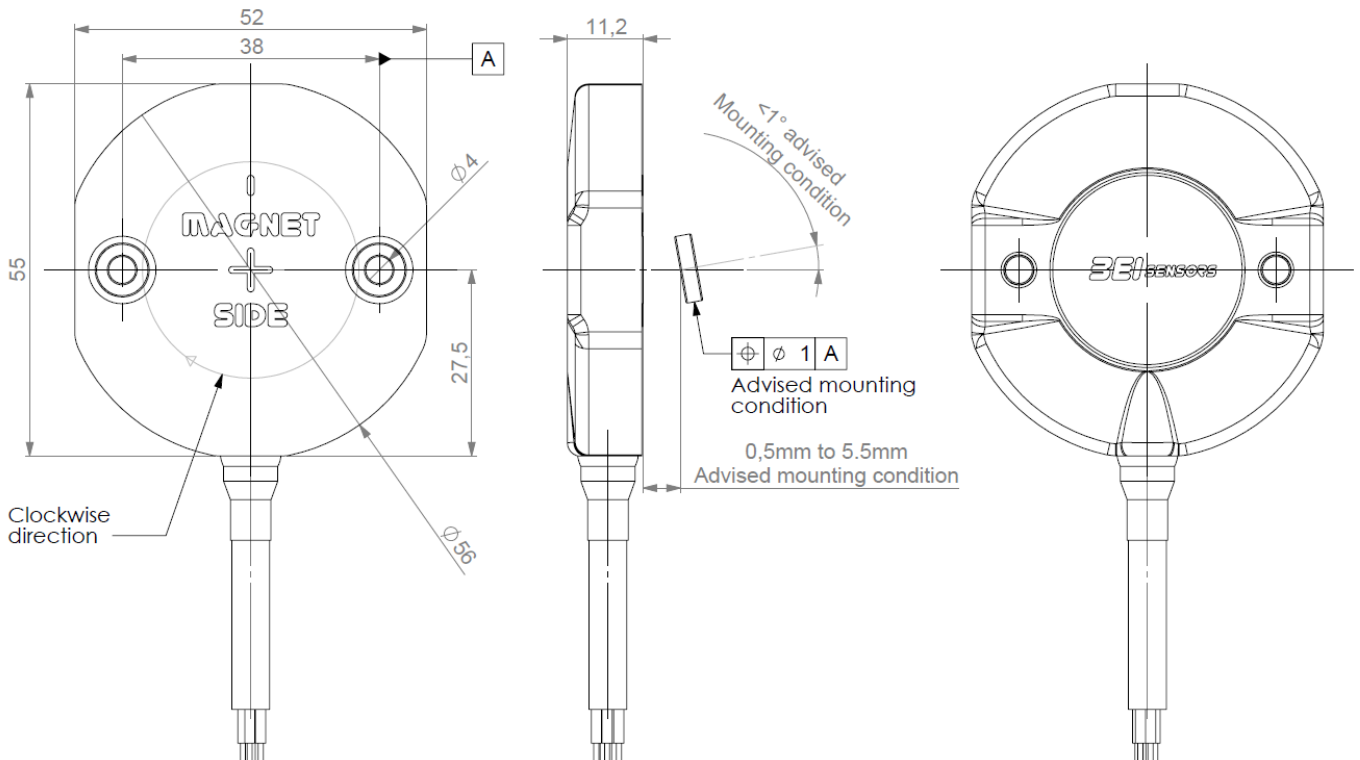
PRELIMINARY - MAGNETIC CANopen ABSOLUTE SINGLE TURN MODULAR SENSORS, ACW4 RANGE

- With its two-part design, the ACW4 CANopen absolute single-turn sensor offers maximum flexibility when installing it.
- Application fields : agriculture, construction, forestry vehicles, medical, solar panels...
- Robustness and excellent resistance to shocks / vibrations.
- Standard IP 67 protection (IP69K option).
- Operating temperature range: -40°C to 85°C (-40...+125°C option).
- Magnetic technology.
- Universal supply 5 to 30Vdc – CANopen interface.
- Available resolution up to 12 bits per revolution.
- Also available : analog, PWM and SSI outputs.
- Standard PVC + SUBD9 connector.

CANopen®
CiA® DS 301 V4.02
DS 406 V3.1



STANDARD ACW4 DIMENSION



Shaft system with magnet to be ordered separately (cf specific data-sheet).

MECHANICAL DATA

Material	Macromelt OM638	Protection	IP 67
Encoder weight (approx.)	0,100 kg	Shocks (EN60068-2-27)	$\leq 2000m.s^{-2}$ (during 6 ms)
Operating temperature	- 40... + 85 °C (encoder T°)	Vibrations (EN60068-2-6)	$\leq 200m.s^{-2}$ (55 ... 2 000 Hz)
Storage temperature	- 40... + 85 °C		

ADAPTATION POSSIBILITY

BEI Sensors distinguishes itself by its flexible approach and ability to react to customers needs, with us no limit exists; we shall always try to supply you the product offering the best solution to your specifications.

Modified mechanics: Precision prototypes units, small and medium size. Units that will match themselves exactly to your mechanical configuration or to your dimensional constraints.

Specific shaft system: for example with integrated coupling.

Send us your subset: we can integrate our encoder into your subset and return you the complete assembly with the guarantee of an optimal mounting.

Connection / Cable assemblies: On the whole range of our sensors a wide selection of electrical connections are possible.

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ELECTRICAL DATA

Power supply	5-30Vdc	Repeatability	± 0.1 %
Consumption without load	< 40mA (at 24Vdc)	Introduction	< 1s
Resolution	4096 (2 ¹²)	Refresh rate	< 400µs
Accuracy	± 0.3 %		

PROGRAMMABLE PARAMETERS

Resolution: defines the resolution per revolution (0 à 4 096).

Transmission speed: programmable from 10kBaud (1 000m) to 1 Mbaud (25 m) ; value per default : 20 Kbaud.

Address: defines the software address of the encoder on the bus (1 à 127, Value per default : id = 1).

Direction: defines the direction of count of the encoder.

RAX: define the value of the current position (stationary shaft).

Comes: high and low limits.

COMMUNICATION MODES

Encoder configuration : Reading/Writing of the encoder objects dictionary (SDO mode).

3 modes are available to interrogate the encoder position/speed :

CYCLIC mode: the encoder transmits its position in an asynchronous manner. The frequency of the transmission is defined by the programmable cyclic timer register from 0 to 65 535 ms,

SYNCHRO mode: the encoder transmits its position on a synchronous demand by the master.

POOLING mode (Answer to a RTR signal) : the encoder only answers to a request.

CANOPEN CONNECTION, CABLE + DB9 CONNECTOR

		N.C.	CAN LOW	CAN GND / 0V	N.C.	N.C.	0V	CAN HIGH	N.C.	5/30Vdc	Ground
BB	PVC Cable + DB9	1	2	3	4	5	6	7	8	9	General shielding

Nota : Refer to the bus standards for the maximal derivation length.

ORDERING REFERENCE (Contact the factory for special versions, ex : stainless steel version, connections...)

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Connection orientation
ACW4: Absolute single turn encoder	00: Modular	P: 5 to 30Vdc	BB: CANopen	B: Binary	12: 4096 points per revolution (2 ¹²)	BB: PVC Cable + DB9 CAN-open	R020: Radial Cable 2m
Ex: ACW4 _	00 //	P	BB	B //	12 //	BB	R020

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