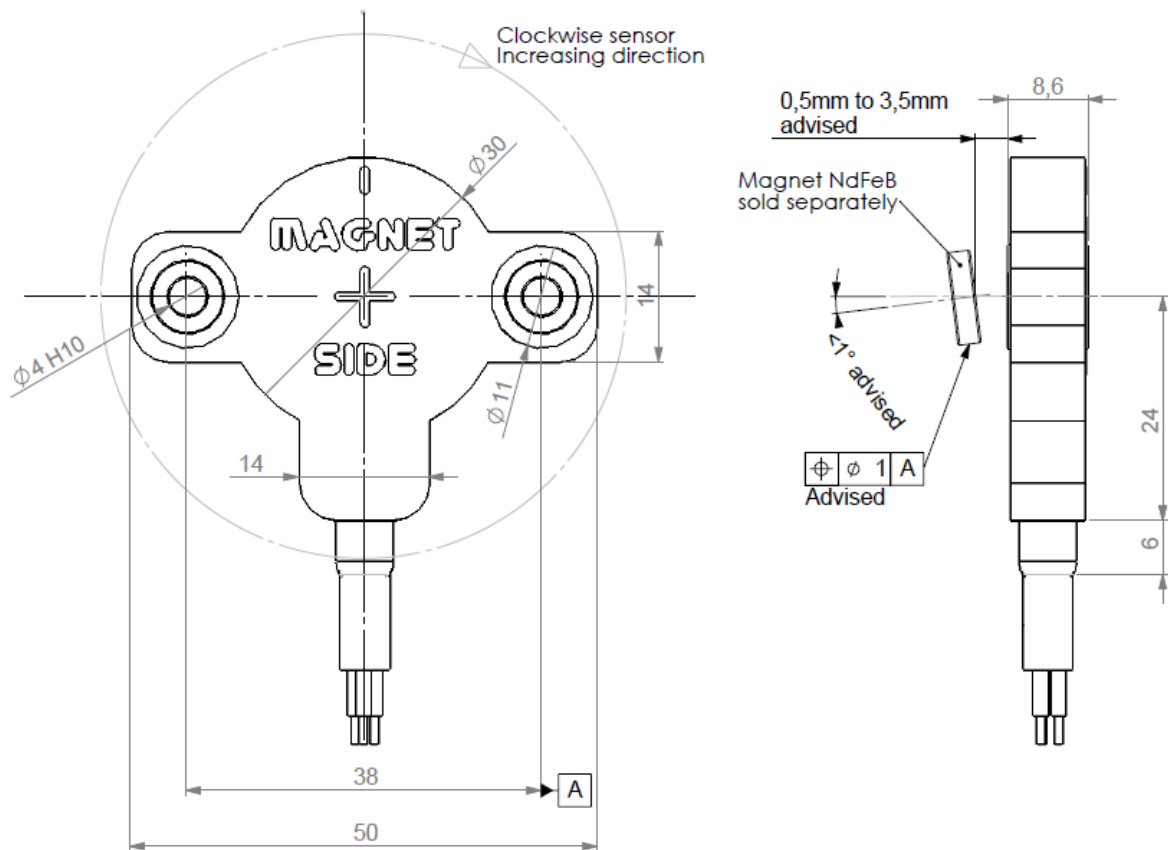


MAGNETIC PWM ABSOLUTE SINGLE TURN MODULAR SENSORS, ACW4 RANGE

- With its two-part design, the ACW4 PWM 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.
- Supply 5 to 30Vdc – PWM output interface.
- Available resolution up to 12 bits per revolution.
- Also available : analog, CANopen and SSI outputs.
- Standard PVC or PUR cable output.



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.

MAGNETIC PWM ABSOLUTE SINGLE TURN MODULAR SENSORS, ACW4 RANGE

ELECTRICAL DATA

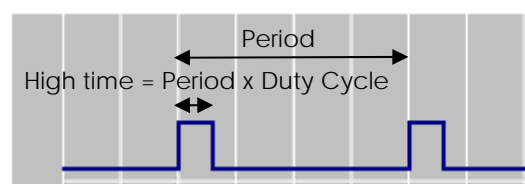
Power supply	5–30Vdc	Introduction	< 1 s
Consumption without load	< 40mA (at 24Vdc)	Response time	< 10 ms
Resolution	12 bits	Sampling rate *	1 kHz
Accuracy	± 0.3 %	Advised load	>10kOhms (Voltage output)
Repeatability	± 0.1 %		500Ohms (current output)

* Nota : Internal data refresh rate

PWM

Our PWM mode is defined with the following characteristics :

- Supply : 5 to 30Vdc
- PWM frequency : 1kHz
- Duty cycle : 10 to 90% (special duty cycle range on demand, for example 5% to 95%, consult us)
- Output voltage : Minimum high level = $V_{cc}-2,5Vdc$.



PWM output is submitted neither to the delay error E_r nor to the angular range extremities distortion previously presented.

As encoders with numeric communication do, PWM absolute encoders fit in various applications where speed is significant as well as where there are a lot of electric interferences : unstable subsequent circuitry supply, distance between sensor and subsequent circuitry... Because encoder's data are not contained in a voltage level but in a time, data are prevented from interferences.

CONNECTION

		+Vcc	0V	PWM output	Ground
L3	3 wire cable PVC 8230/022	Brown BN	White WH	Green GN	General shielding

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

	Mechanics	Supply Output stage	Direction	Resolution	Connection	Connection orientation
ACW4 : Absolute single turn encoder	00 : Modular	2LP : 5V power supply 5LP : 11-30V power supply PWM 1kHz cycle = 10..90%	1 : CW Clockwise 2 : CCW Counter- clockwise	xxxxx : Angle in degree Ex : 00360 360°	L3 : 3 wires cable PVC	R020 : Radial Cable 2m

Ex: ACW4 _ 00 // 5 LP 1 // 00360 // L3 R020

Made in France