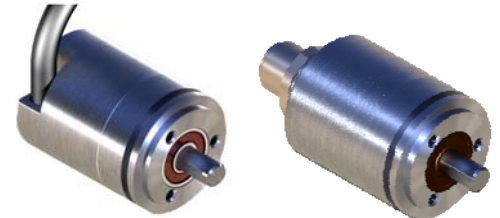
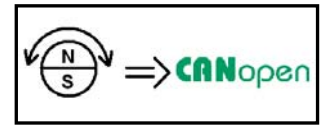
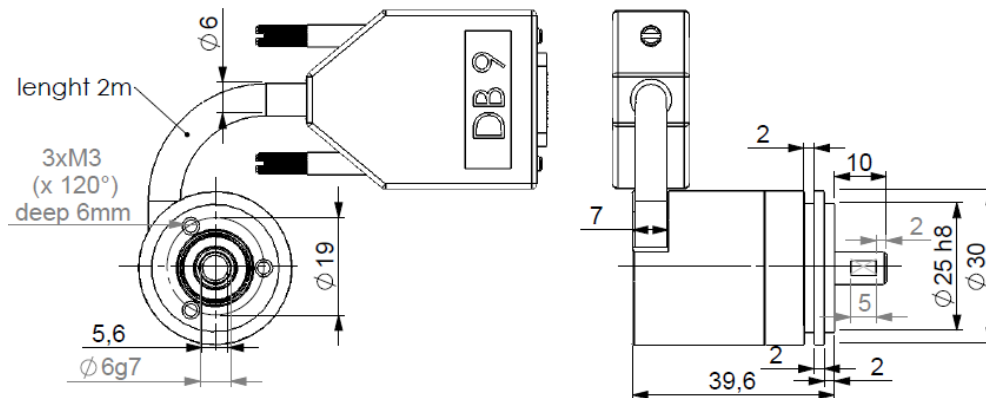


MAGNETIC CANOPEN ABSOLUTE SINGLE TURN ENCODERS, AHM3 RANGE

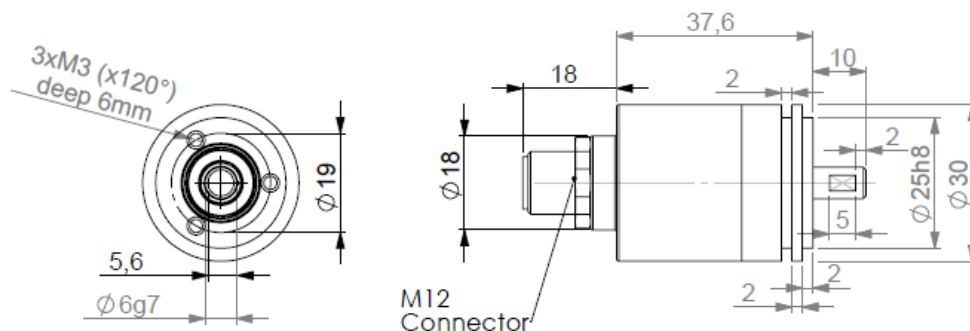
- With its 30mm size and a 6mm solid shaft, AHM3 encoder characterizes itself by its strong robustness of the mechanical and electro-magnetic parts, it's the most compact really industrial encoder with a solid shaft.
- Application fields : agriculture, construction, forestry vehicles, medical applications, solar panels...
- Magnetic technology, contactless.
- Available resolution up to 12 bits per revolution.
- Universal supply 5 to 30Vdc available.
- Also available : analog, PWM and SSI outputs..
- Available in option : Extended temperature range (up to -40..+125°C), IP67/IP69K...



AHM3 BBD connection (cable + DB9 output, diagonal output)



AHM3 B7A connection (Axial M12 output)



MECHANICAL DATA

Material	Shaft: stainless steel	Isolation	500Veff
	Cover: aluminium	EMC	EN 61000-6-4
	Body: aluminium		EN 61000-6-2
Bearings	696 series	Operating temperature	- 40... + 85 °C (encoder T°)
Maximal loads	Axial : 20 N	Storage temperature	- 40... + 85 °C
	Radial : 50 N	Protection	IP 65
Shaft inertia	$\leq 0,1 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2$	Shocks (EN60068-2-27)	$\leq 2000 \text{ m} \cdot \text{s}^{-2}$ (during 6 ms)
Torque	$\leq 1 \cdot 10^{-3} \text{ N} \cdot \text{m}$	Vibrations (EN60068-2-6)	$\leq 200 \text{ m} \cdot \text{s}^{-2}$ (55 ... 2 000 Hz)
Nominal max. speed	6 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Encoder weight (approx.)	0,150 kg	20 N / 50 N	15

MAGNETIC CANOPEN ABSOLUTE SINGLE TURN ENCODERS, AHM3 RANGE

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 (stationnary 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.

CONNECTIQUE CANOPEN

Type	Description	0V	+Vcc	CAN GND / 0V	CAN HIGH	CAN LOW	Ground
BB	PVC cable + DB9	6	9	3	7	2	Connector body
B7	M12 5 pinouts	1	2	3	4	5	Connector body

Note :

-Refer to the bus standards for the maximal derivation,

- signals 0V and CAN GND are connected together (internally);

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

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Connection orientation
AHM3	06 : 6mm	P : 5 to 30Vdc	BB : CANopen	B: Binary	12 : 4096 (2 ¹²)	BB: PVC Cable + DB9 CAN- open	D020: Diagonal Cable 2m
						B7 : M12 5 pinouts	A : Axial
Ex: AHM3 _	06 //	P	BB	B //	12 //	BB	D020

Made in France