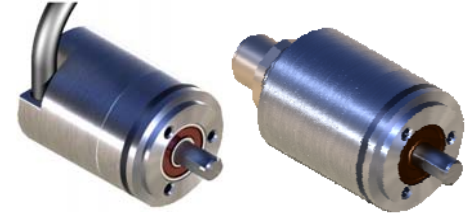
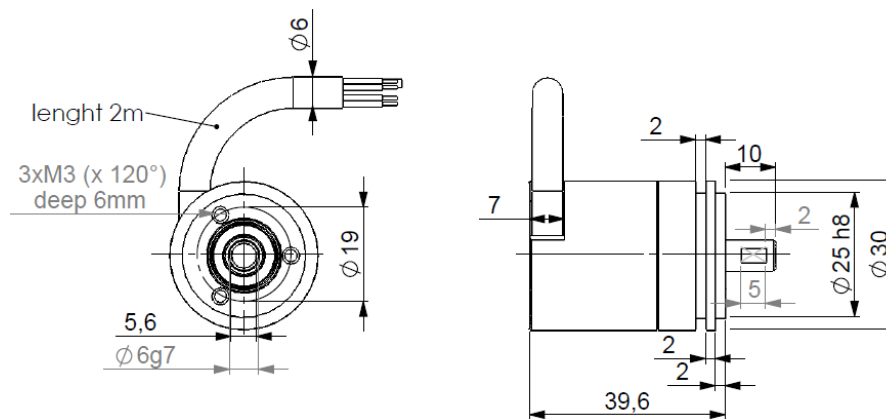


## MAGNETIC SSI ABSOLUTE SINGLE TURN ENCODERS, AHM3 RANGE

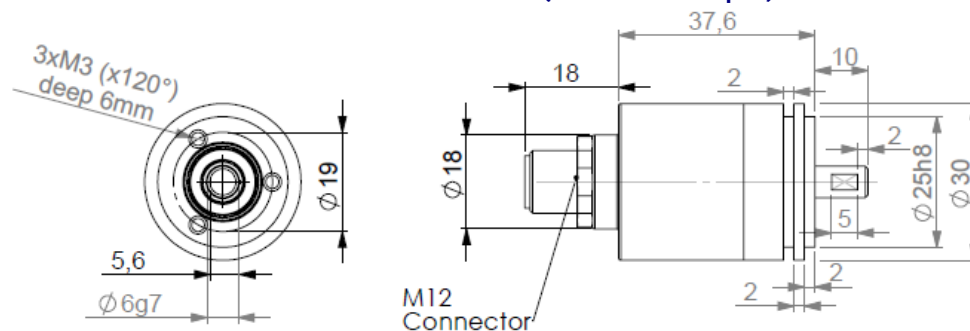
- With its 30mm size and a 6mm solid shaft, AHM3 encoder characterizes itself by its strong robustness of the mechanical and electro-magnetic parts, it's the most compact really industrial encoder with a solid shaft.
- Application fields : agriculture, construction, forestry vehicles, medical applications, solar panels...
- Magnetic technology, contactless.
- Available resolution up to 12 bits per revolution.
- Universal supply 5 to 30Vdc available.
- Also available : analog, PWM and CANopen outputs.
- Available in option : Extended temperature range (up to -20...+125°C), IP67/IP69K...



### AHM3 S5D connection (diagonal cable output)



### AHM3 SCA connection (Axial M12 output)



## MECHANICAL DATA

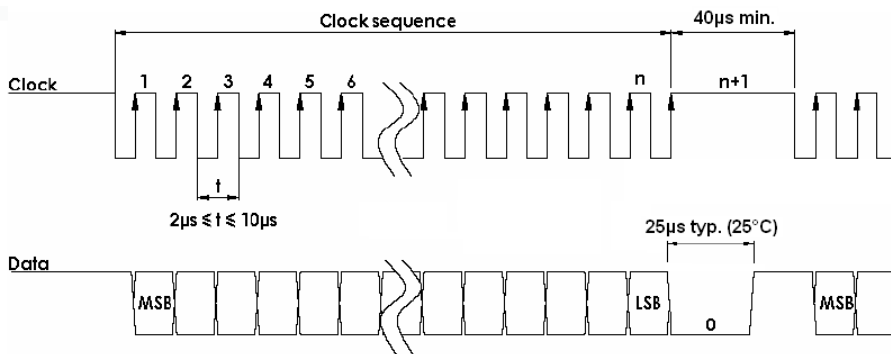
Material	Shaft: stainless steel	Isolation	500Veff
	Cover: aluminium	EMC	EN 61000-6-4
	Body: aluminium		EN 61000-6-2
Bearings	696 series	Operating temperature	- 20... + 85 °C (encoder T°)
Maximal loads	Axial : 20 N	Storage temperature	- 20... + 85 °C
	Radial : 50 N	Protection	IP 65
Shaft inertia	$\leq 0,1 \cdot 10^{-6} \text{ kg} \cdot \text{m}^2$	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	$6\,000 \text{ min}^{-1}$	Theoretical mechanical lifetime $10^9$ turns ( $F_{\text{axial}} / F_{\text{radial}}$ )	
Encoder weight (approx.)	0,150 kg	20 N / 50 N	15

## MAGNETIC SSI ABSOLUTE SINGLE TURN ENCODERS, AHM3 RANGE

### ELECTRICAL DATA

Power supply	5 – 30Vdc	Introduction	<1s
Consumption without load	<40mA (at 24Vdc)	Refresh rate	< 400µs
Resolution	12 bits	Input signal clock CLK	Per optocoupler
Accuracy	± 0,3%	Output signal DATA	line - driver RS422
Repeatability	± 0,1%		

### SSI TRANSMISSION



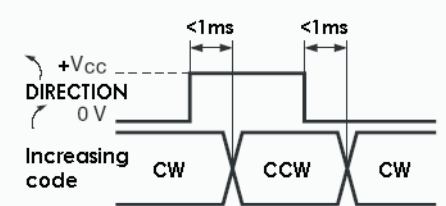
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics.
Cable	High security of transmission by using shielded cable and twisted pairs.

\* Consult us for length > 100m.

### STANDARD SSI CONNECTION

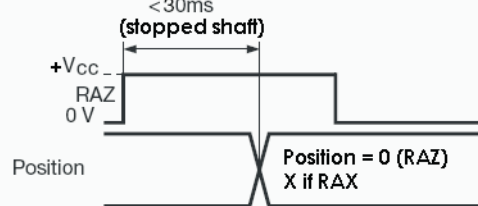
		+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground
S5	SSI cable PUR 8230/050	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Gray	BU Blue	PK Pink	BN Brown	WH White	General shielding
SC	M12 8 pinouts	2	1	3	5	7	6	4	8	Connector body

#### DIRECTION input



Level "0"	min 0 V	max 0,3x(+Vcc)	Increasing CW
Level "1"	0,7x(+Vcc)	+Vcc	CCW
I direction	< 5mA		

#### RAZ / RAX input



Level "0"	min 0 V	max 0,3x(+Vcc)
Level "1"	0,7x(+Vcc)	+Vcc
I raz/rax	< 5mA	

Nota : Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used)

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

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Orientation
AHM3	06 : 6mm	P : 5 to 30Vdc	CS : SSI without parity	B : Binary	12: 12 bits	S5 : SSI PUR cable	D020 : 2m diagonal cable
			CP : SSI even parity CI : SSI odd parity	G : Gray		SC : M12 8 pinouts	A : Axial
Ex:AHM3_	06 //	P	CS	G //	12 //	S5	D020

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