



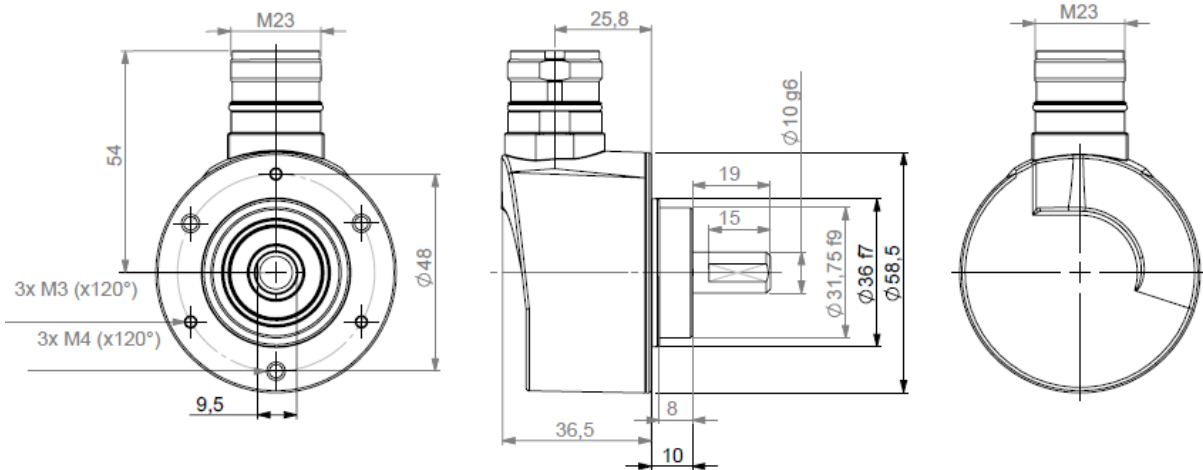
MAGNETIC SSI ABSOLUTE SINGLE TURN ENCODERS, AHM5 RANGE

AHM5 is a new magnetic absolute single turn encoders generation. It characterizes itself by its strong robustness of the mechanical and electro-magnetic parts :

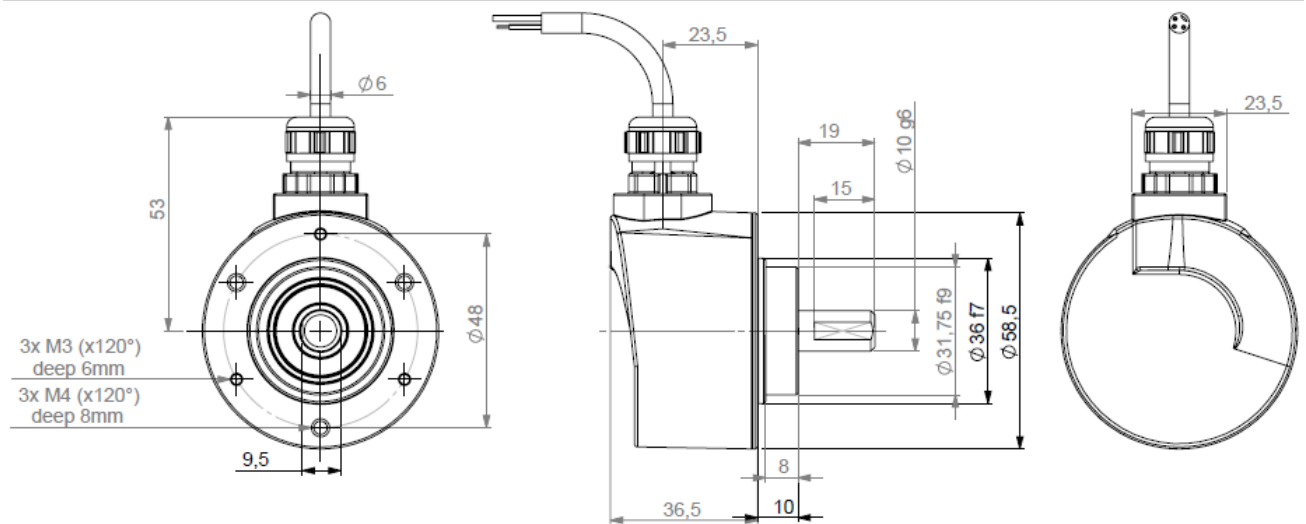
- Application fields : agriculture, construction, forestry vehicles, medical applications, solar panels...
- Magnetic technology, contactless.
- Strong robustness with its reinforced bearing block and its stopped bearings.
- Available resolution up to 12 bits per revolution.
- Universal supply from 5 to 30Vdc.
- Also available : analog, PWM and CANOpen outputs.
- Available in option : Extended temperature range (up to -20...+125°C), IP67/IP69K...



AHM5_10 with S6 connection (radial M23)



AHM5_10 with S5 connection (radial cable)



MECHANICAL DATA

Material	Shaft: Stainless steel	Isolation	500 Veff
	Cover: Zinc alloy	EMC	EN 61000-6-4
	Body: aluminium		EN 61000-6-2
Bearings	6 000 series	Operating temperature	- 20... + 85 °C (T° encoder)
Maximal loads	Axial : 100 N	Storage temperature	- 20... + 85 °C
	Radial : 200 N	Protection	IP 65
Shaft inertia	≤ 0,4.10 ⁻⁶ kg.m ²	Shocks (EN60068-2-27)	≤ 2000m.s ⁻² (during 6 ms)
Torque	≤ 7.10 ⁻³ N.m	Vibrations (EN60068-2-6)	≤ 200m.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.)	0,300 kg	100 N / 200 N	3

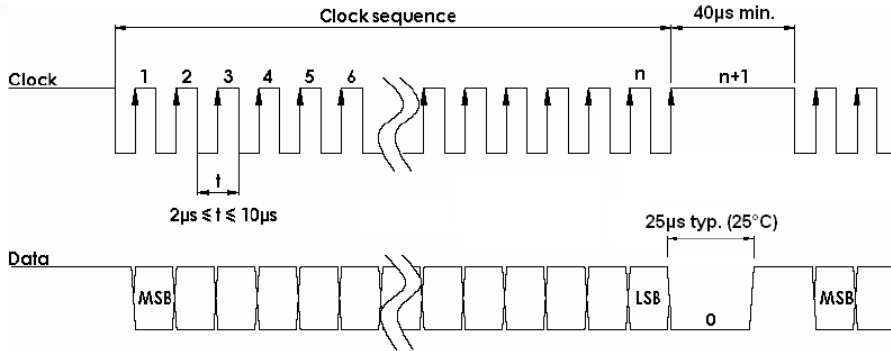


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ELECTRICAL DATA

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



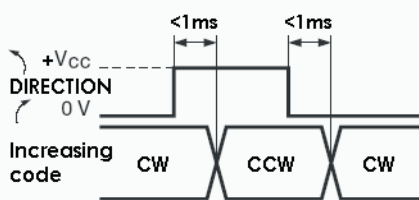
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics.
Cable	High security of transmission by using shielded cable and twisted pairs.

* Consult us for length > 100m.

STANDARD SSI CONNECTION

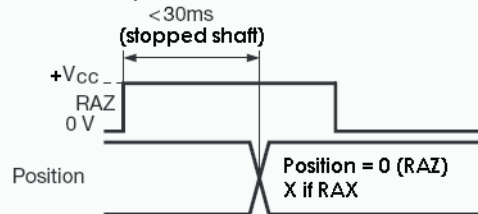
		+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground
S5	SSI cable PUR 8230/050	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Gray	BU Blue	PK Pink	BN Brown	WH White	General shielding
S6	M23 12 pinouts	1	2	3	4	5	6	7	9	Connector body

DIRECTION input



Level "0"	min 0 V	max $0,3x(+V_{CC})$	Increasing CW
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$	CCW
I direction	<math>< 5mA</math>		

RAZ / RAX input



Level "0"	min 0 V	max $0,3x(+V_{CC})$
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$
I raz/rax	<math>< 5mA</math>	

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	Connection orientation
AHM5	06 : Shaft 6mm	P : 5 to 30Vdc	CS : SSI without parity	B : Binary G : Gray	12 : 4096 points per revolution (2 ¹²)	S5 : SSI PUR cable	A020 : Axial Cable 2m
	10 : Shaft 10mm		CP : SSI even parity CI : SSI odd parity				R020 : Radial Cable 2m
Ex: AHM5_	10 //	P	CS	G	// 12 //	S5	R020

Made in France