

AHM5

MAGNETIC SSI ABSOLUTE SINGLE TURN ENCODERS, AHM5 RANGE

Introduction

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



Features

- 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...

SPECIFICATIONS

Mechanical

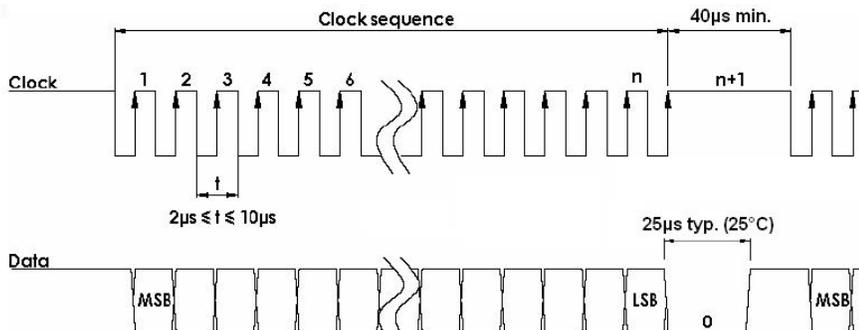
Material	Shaft: Stainless steel Cover: Zinc alloy Body: aluminium
Bearings	6 000 series
Maximal loads	Axial : 100 N Radial : 200 N
Shaft inertia	$\leq 0,4 \cdot 10^{-6} \text{ kg.m}^2$
Torque	$\leq 7 \cdot 10^{-3} \text{ N.m}$
Nominal max. speed	6 000 min ⁻¹
Encoder weight (approx.)	0,300 kg
Isolation	500 Veff
EMC	EN 61000-6-4 EN 61000-6-2

Operating temperature	-20... + 85 °C (T° encoder)
Storage temperature	-20... + 85 °C
Protection	IP 65
Shocks (EN60068-2-27)	$\leq 2000\text{m.s}^{-2}$ (during 6 ms)
Vibrations (EN60068-2-6)	$\leq 200\text{m.s}^{-2}$ (55 ... 2 000 Hz)
Theoretical mechanical lifetime 10⁹ turns (Faxial / Fradial)	
100 N / 200 N	3

Electrical

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

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.

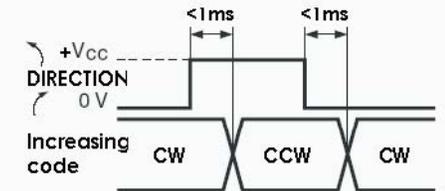
*Consult us for length > 100m.



STANDARD SSI CONNECTION

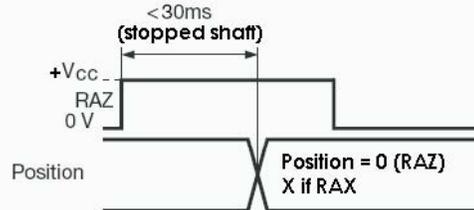
		+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground
S5	SSI cable PUR 8230/050	BN/GN Brown/ Green	WH/GN White/ Green	GN Green	GY Gray	BU Blue	PK Pink	BN Brown	WH White	General shielding
S6	M23 12 pinouts	1	2	3	4	5	6	7	9	Connector body

DIRECTION input



	min	max	Increasing
Level "0"	0 V	$0,3 \times (+V_{CC})$	CW
Level "1"	$0,7 \times (+V_{CC})$	$+V_{CC}$	CCW
I direction	$< 5\text{mA}$		

RAZ / RAX input

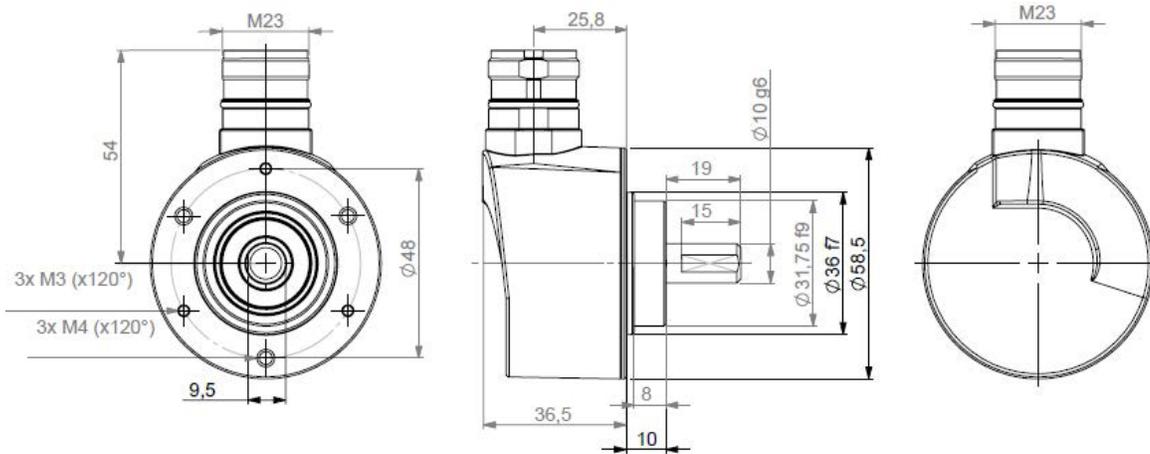


	min	max
Level "0"	0 V	$0,3 \times (+V_{CC})$
Level "1"	$0,7 \times (+V_{CC})$	$+V_{CC}$
I raz/rax	$< 5\text{mA}$	

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

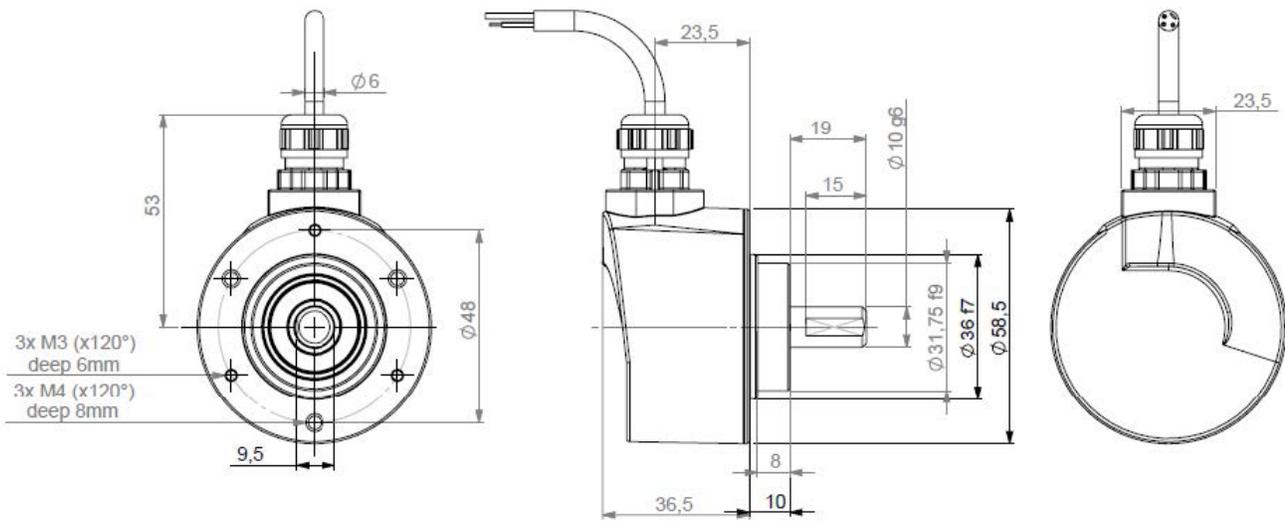


AHM5_10 WITH S6 CONNECTION (RADIAL M23)





AHM5_10 WITH S5 CONNECTION (RADIAL CABLE)



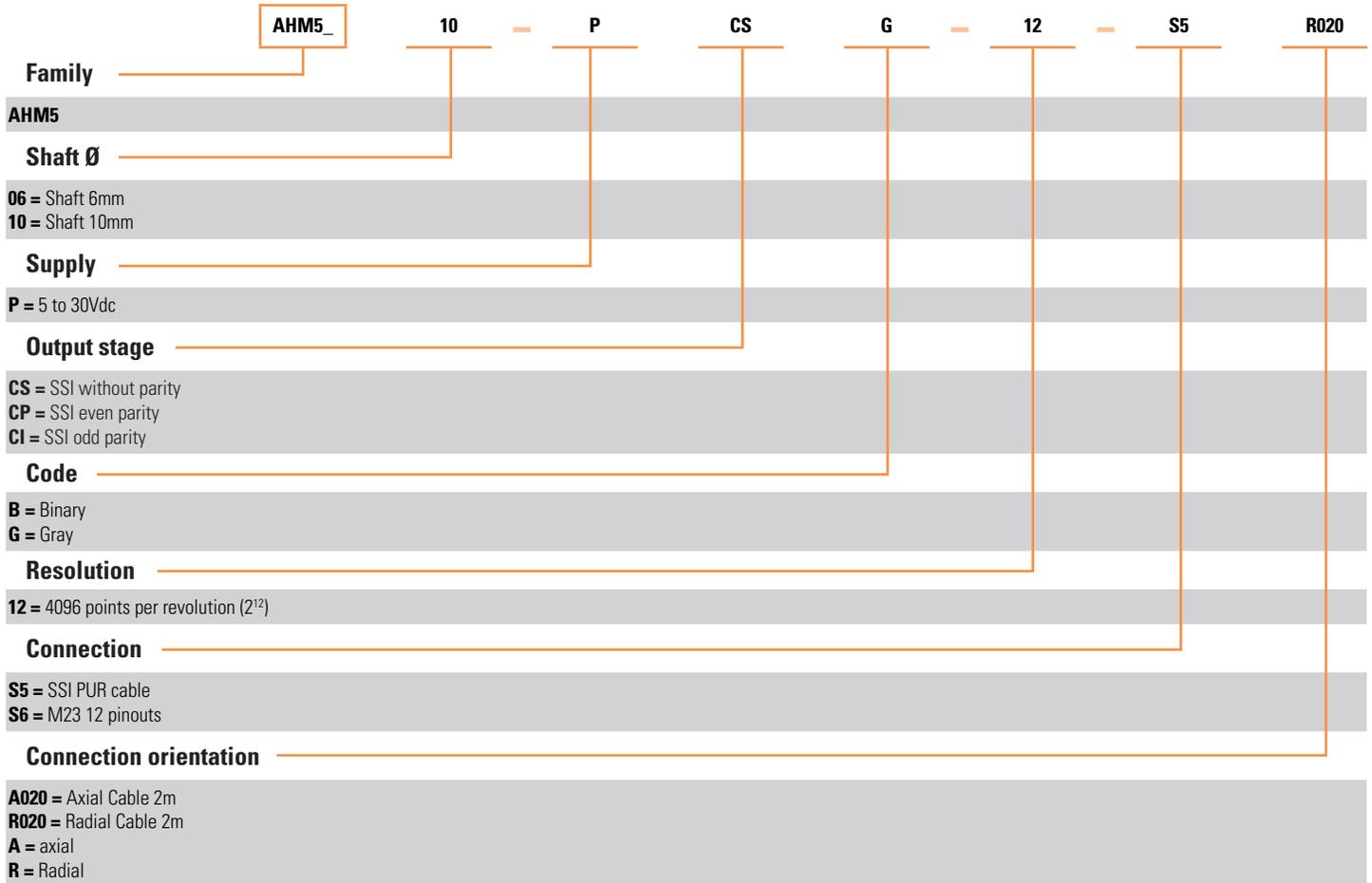


ORDERING OPTIONS

Example : AHM5_10-PCSG-12-S5R020

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

Made in France



AGENCY APPROVALS & CERTIFICATIONS



Made in France

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