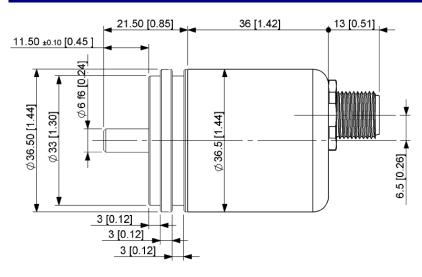
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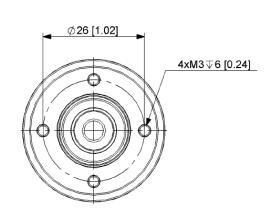
AHM4 is a Ø36mm singleturn encoder with SSI interface:

- Compact and robust design.
- Solid shaft Ø 6 mm version.
- Precision sealed bearings.
- High temperature performance -40°C to 85°C.
- Hall effect technology.
- SSI interface, Gray code or binary.
- 13 bits resolution = 8192 steps / turn.
- Polarity inversions and surges protections.
- High integration SMD technology.



AHM4 - M12 AXIAL DIMENSIONS





MECHANICAL CHARACTERISTICS

	Cover : nickel, steel plated		
Material	Body : aluminum		
	Shaft: stainless steel		
May shaft loading	Axial : 40 N		
Max. shaft loading	Radial:110 N		
Shaft Inertia	≤ 30 g.cm²		
Torque	≤ 3 N.cm		
RPM (continuous operation)	12 000 rpm		
Shock (EN 60068-2-27))	≤ 100 g (half-sine, 6 ms)		
Shock (EN 60028-2-29)	≤ 10 g (half-sine, 16ms)		

Vibrations (EN 60068-2-6)	≤ 10 g (10Hz 1 000Hz)			
Weight	110 g			
Operating temperature	- 40 + 85°C			
Storage temperature	- 40 + 85°C			
Humidity	98 % without condensation			
Protection class (EN 60529)	IP 54			
Lifetime in 108 revolutions with E _x / E _x (axial / radial)				

Life if the fevolutions with Fa / Fr (axial / radial)					
40 N / 60 N	40 N / 60 N 40 N / 80 N				
14	10	6			



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AHM4

MAGNETIC ENCODERS - SSI ABSOLUTE SINGLE TURN - 13 BITS - AHM4 RANGE

ELECTRICAL CHARACTERISTICS Hall effect 4.75 - 30Vdc Single turn technology Single turn resolution 13 bits Current consumption Typical 50mA Accuracy ± 0.0878° (≤12 bits) Power consumption ≤ 1.5W Input signal clock CLK Per optocoupler Start up time < 250ms line - driver RS422 > 25µs Output signal DATA Interface cycle time Clock frequency CLK 100kH - 2MHz **EMC** EN 61000-6-4 EN 61000-6-2

SSI COMMUNICATION Clock sequence n+1 2 3 4 5 6 n Clock tm $tp < 20\mu s$ $tm > 20\mu s$ t < tmData MSB LSB **MSB** 0 tр Driver Data according toRS422 standard; transmission up to 10 Mbits/s Transmission Up to 1 200m Safety Signals transmission Cable High security of transmission by using shielded cable and twisted pairs

	SSI CONNECTION									
	Туре	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	Direction	Ground
•	M12 8 pinouts	2	1	3	5	7	6	4	8	Connector body

INPUTS							
Count when encoder's shaft rot (flange) side (input resistance 10	•	Sent data reset (input resistance 10kOhms)					
0 (input = NC or GND) Increasing count		0 (input = NC or GND)	Position				
1 (input = +Ub or ≥ 10V)	Decreasing count	1 (input = +Ub or ≥ 10V)	Reset after 1 second				

ORDERING REFERENCE (specific manufacture on demand. ex: flange / specific connection)									
AHM4	\$100	G	0013	R	06	0	PAQ		
Absolute single turn encoder	SSI version	Code : Gray	Resolution (pos./turn) 2 ¹³ (8 192)	Servo Flange	Shat diameter : 6mm	Without mechanical option	Axial M12 connector		

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