

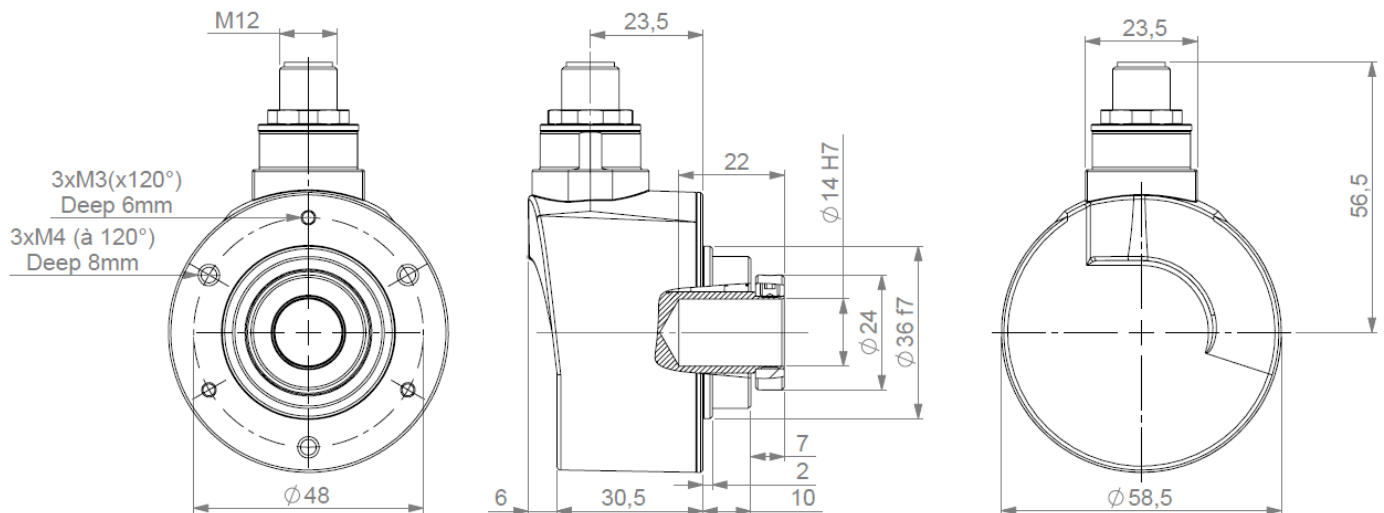
## MAGNETIC ANALOG ABSOLUTE SINGLE TURN ENCODERS, AHK5 RANGE

AHK5 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.
- 58mm encoder – blind shat 14 mm – 15mm option – reduction hub available.
- Power supply from 10 to 30Vdc.
- Available output interfaces : 0..10V, 0.5..4.5V, 4..20mA.
- Available resolution up to 12 bits per revolution.
- Standard M12 or cable output – radial or axial.
- Available in option: Extended temperature range (up to -40..+125°C), IP67/IP69K...
- Also available : PWM, SSI and CANopen outputs.



### AHK5\_14 L4R connection (radial M12)



### MECHANICAL CHARACTERISTICS

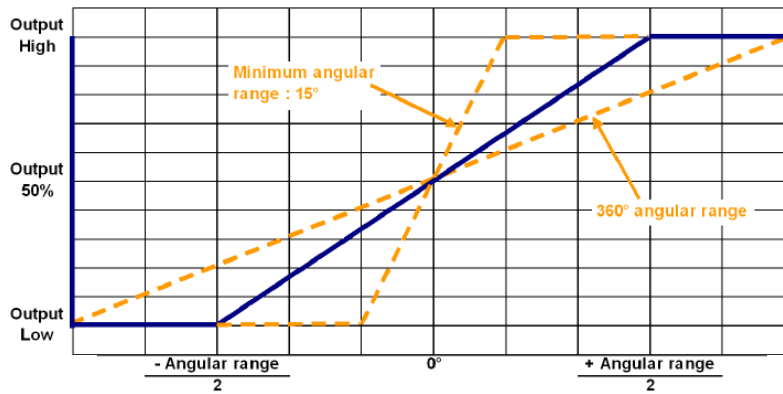
Material	Cover : zinc alloy	Vibrations (EN60068-2-6)	≤ 100 m.s <sup>-2</sup> (55 ... 2 000 Hz)
	Body : aluminium	EMC	EN 61000-6-4, EN 61000-6-2
	Shaft : stainless steel	Isolation	500 V eff
Bearings	6 803 serie	Encoder weight (approx.)	0,300 kg
Maximal loads	Axial : 20 N	Operating temperature	- 20 ... + 85°C (encoder T°)
	Radial : 50 N	Storage temperature	- 40 ... + 85°C
Shaft inertia	≤ 2,2.10 <sup>-6</sup> kg.m <sup>2</sup>	Protection(EN 60529)	IP 65
Torque	≤ 6.10 <sup>-3</sup> N.m	Torque (ring pressure screw)	nominal: 1.5 N.m, break: 2.0 N.m
Permissible max. speed	9 000 min <sup>-1</sup>	Theoretical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )	
Continuous max. speed	6 000 min <sup>-1</sup>	10N / 25N	230
Shocks (EN60068-2-27)	≤ 500 m.s <sup>-2</sup> (during 6 ms)	20N / 50N	29

## MAGNETIC ANALOG ABSOLUTE SINGLE TURN ENCODERS, AHK5 RANGE

### ELECTRICAL DATA

Power supply	5V or 10–30Vdc or 15-30Vdc	Introduction	< 1 s
Consumption without load	< 40mA (at 24Vdc)	Response time	< 10 ms (5L2 & 3L1 electronic) < 1ms (other electronics)
Resolution	12 bits	Advised load	>10kOhms (Voltage output) 500Ohms (current output)
Accuracy	± 0.3 %		
Repeatability	± 0.1 %		

### ANALOG OUTPUT



### CONNECTION

		0V	+Vcc	Analog output	Ground
<b>L3</b>	3 wire cable PVC 8230/022	White WH	Brown BN	Green GN	General shielding
<b>L4</b>	M12 connector 4 pinouts	1	2	3	Connector body

\* Nota : pinout number 4 is not connected - If extension cable is used: please refer to its wiring arrangement / wire colors

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

	Shaft Ø	Supply Output stage	Direction	Resolution	Connection	Connection orientation
<b>AHK5</b>	<b>14</b> : 14mm reduction hubs available  <b>15</b> : 15mm option	<b>3L1</b> : 15 to 30Vdc 0..10V output  <b>5L2</b> : 10 to 30Vdc 0.5..4.5V output  <b>3L3</b> : 15 to 30Vdc 4..20mA output  <b>2LR</b> : 5V +/- 5% Ratio 10...90% voltage supply	<b>1</b> : CW Clockwise  <b>2</b> : CCW Counter- clockwise	<b>00360</b> : Analog output calibrated on 360°  Other : Consult us	<b>L3</b> : 3 wires cable PVC  <b>L4</b> : M12 Connector 4 pinouts	<b>A020</b> : Axial Cable 2m  <b>R020</b> : Radial Cable 2m  <b>A</b> : Axial  <b>R</b> : Radial
		Ex: AHK5 _ <b>14</b> // <b>3 L1</b> <b>1</b> // <b>00360</b> // <b>L3</b> <b>R020</b>				

Made in France