

# AHM3 *Magnetic analog absolute single turn encoder*



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.
- Power supply from 10 to 30Vdc.
- Available output interfaces : 0..10V, 0.5..4.5V, 4..20mA.  
Also available : PWM, SSI and CANopen outputs.
- Available in option : Extended temperature range (up to -40..+125°C), IP67, angular ranges and output levels, redundancy...

ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
<b>Electrical stroke</b>	360°	<b>Material</b>	Shaft: stainless steel Cover: aluminium Body: aluminium
<b>Power supply</b>	5 VDC, 5-30 VDC or 15-30 VDC depending on the output	<b>Bearings</b>	696 series
<b>Consumption without load</b>	< 40 mA (at 24 VDC)	<b>Maximal loads</b>	Axial: 20 N Radial: 50 N
<b>Resolution</b>	12 bits	<b>Shaft inertia</b>	$\leq 0,1 \cdot 10^{-6}$ kgm <sup>2</sup>
<b>Accuracy</b>	$\pm 0,3$ %	<b>Torque</b>	$\leq 1 \cdot 10^{-3}$ Nm
<b>Repeatability</b>	$\pm 0,1$ %	<b>Nominal max. speed</b>	6000 rpm
<b>Introduction</b>	< 1 s	<b>Encoder weight (approx.)</b>	150 g
<b>Response time</b>	< 10 ms (5L2 & 3L1 electronic) < 1 ms (other electronics)	<b>Operating temperature</b>	-40...+85°C
<b>Advised load</b>	< 10k $\Omega$ (voltage output) 500 $\Omega$ (current output)	<b>Storage temperature</b>	-40...+85°C
<b>Isolation</b>	500 Veff	<b>Protection</b>	IP 65
<b>EMC</b>	EN 61000-6-4 EN 61000-6-2	<b>Shocks (EN 60068-2-27)</b>	$\leq 2000$ m/s <sup>2</sup> (during 6 ms)
		<b>Vibration (EN 60068-2-6)</b>	$\leq 200$ m/s <sup>2</sup> (55...2000 Hz)
		<b>Theoretical mechanical lifetime 10<sup>9</sup> turns (F<sub>axial</sub> / F<sub>radial</sub>)</b>	
		20 N / 50 N	15

Contact Regal Components for special versions, ex: stainless steel versions, connections...

ORDER INFORMATION						
	Shaft diameter	Supply Output stage	Direction	Resolution	Connection	Connection orientation
AHM3	06: 6 mm	3L1: 15 to 30 VDC 0-10V output	1: CW Clockwise  2: CCW Counter-clockwise	00360: Analog output calibrated on 360°  Other: Consult us	L2: 4 pinouts M8	A: axial
		5L2: 20 to 30 VDC 0,5-4,5V output			L3: PVC cable 3 wires	A020: Axial Cable 2 m  D020: diagonal cable 2 m
Ex: AHM3	06	3L1	1	00360	L3	D020

2015-07-22, specifications subject to change without notice

ISO 9001  
BUREAU VERITAS  
Certification

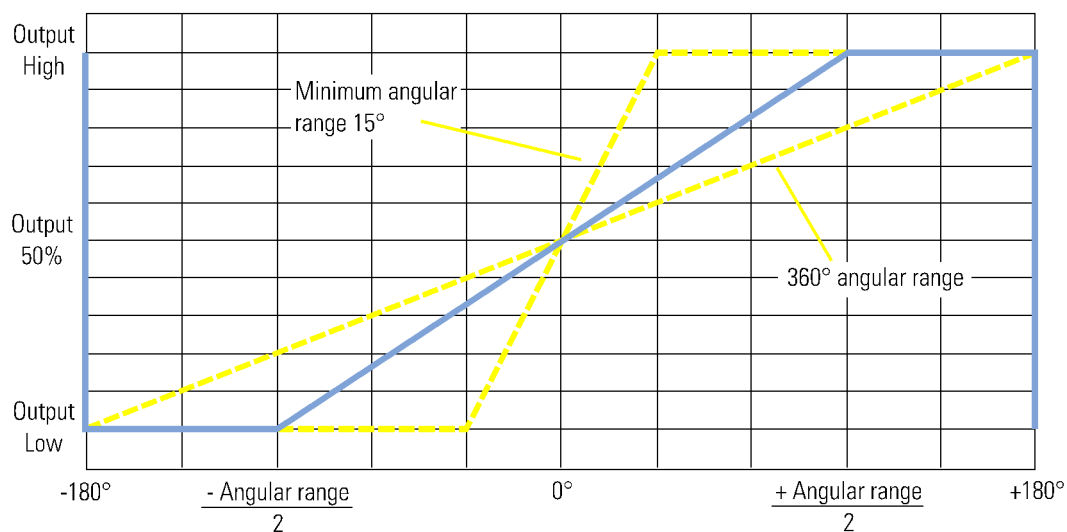


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## ANALOG OUTPUT

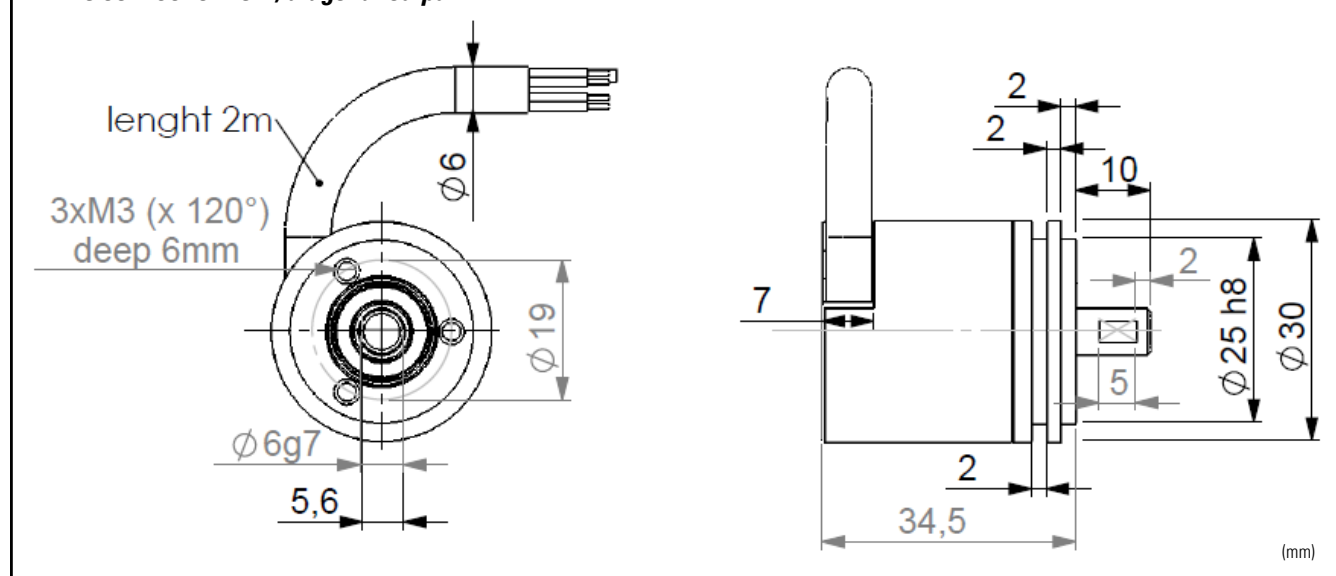


## CONNECTION

		0V	+Vcc	Analog output	Ground
L3	3 wires cable PVC 8230/022	WH white	BN brown	GN green	General shielding
L2	M8 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

## AHM3 connection L3D , diagonal output



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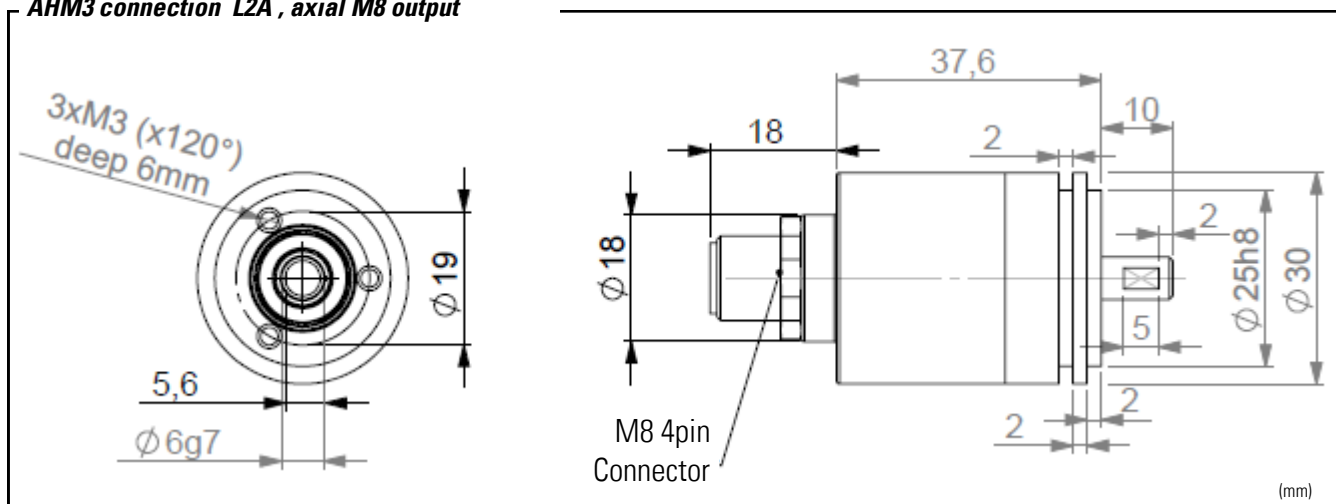


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AHM3 connection L2A , axial M8 output



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