



## AHM5 RANGE

### ANALOG ABSOLUTE SINGLE TURN ENCODERS



### Features

AHM5 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.
- Power supply from 10 to 30Vdc.
- Available Output Interfaces : 0..10V, 0.5..4.5V, 4..20mA.
- Available in Options: Extended temperature range (up to -40..+125°C), IP67/IP69K...
- Also Available : PWM, SSI and CANopen outputs.



## SPECIFICATIONS

### Mechanical

<b>Material</b>	Shaft: Stainless Steel, Cover: Zinc Alloy, Body: Aluminium
<b>Bearings</b>	6 000 series
<b>Maximal Loads</b>	Axial: 100 N, Radial: 200 N
<b>Shaft Inertia</b>	$\leq 0,4 \cdot 10^{-6} \text{ kg.m}^2$
<b>Torque</b>	$\leq 7 \cdot 10^{-3} \text{ N.m}$
<b>Nominal Max. Speed</b>	6 000 min <sup>-1</sup>
<b>Encoder Weight (Approx.)</b>	0,300 kg
<b>Isolation</b>	500 Veff
<b>EMC</b>	EN 61000-6-4, EN 61000-6-2
<b>Operating Temperature</b>	- 40... + 85 °C (T° encoder)
<b>Storage Temperature</b>	- 40... + 85 °C
<b>Protection</b>	IP 65
<b>Shocks (EN60068-2-27)</b>	$\leq 2000 \text{ m.s}^{-2}$ (during 6 ms)
<b>Vibrations (EN60068-2-6)</b>	$\leq 200 \text{ m.s}^{-2}$ (55 ... 2 000 Hz)
<b>Theoretical Mechanical Lifetime</b>	10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )
<b>100 N / 200 N</b>	3.10 <sup>9</sup> turns

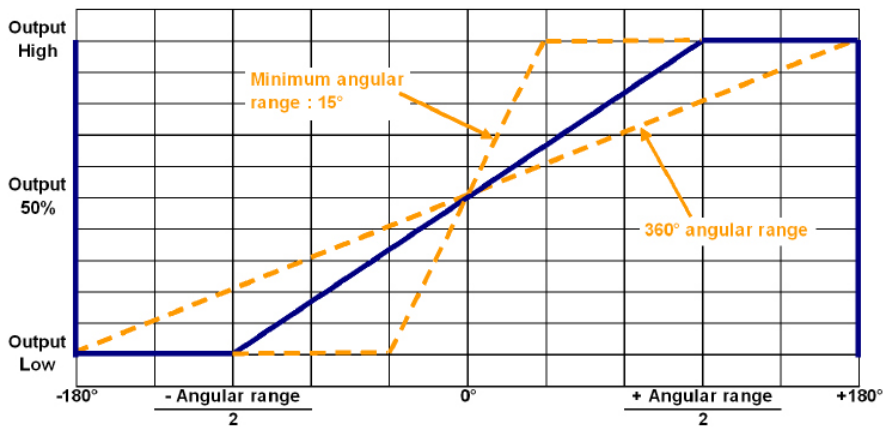
## Electrical

<b>Power Supply</b>	5V or 10–30Vdc or 15-30Vdc
<b>Consumption without Load</b>	< 40mA (at 24Vdc)
<b>Resolution</b>	12 bits
<b>Accuracy</b>	± 0.3 % (on 360°)
<b>Repeatability</b>	± 0.1 % (on 360°)
<b>Introduction</b>	< 1s
<b>Response Time</b>	< 10 ms (5L2 & 3L1 electronic) < 1ms (other electronics)
<b>Advised Load</b>	> 10kOhms (Voltage output) < 500Ohms (current output)



## TECHNICAL SPECIFICATIONS

### 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

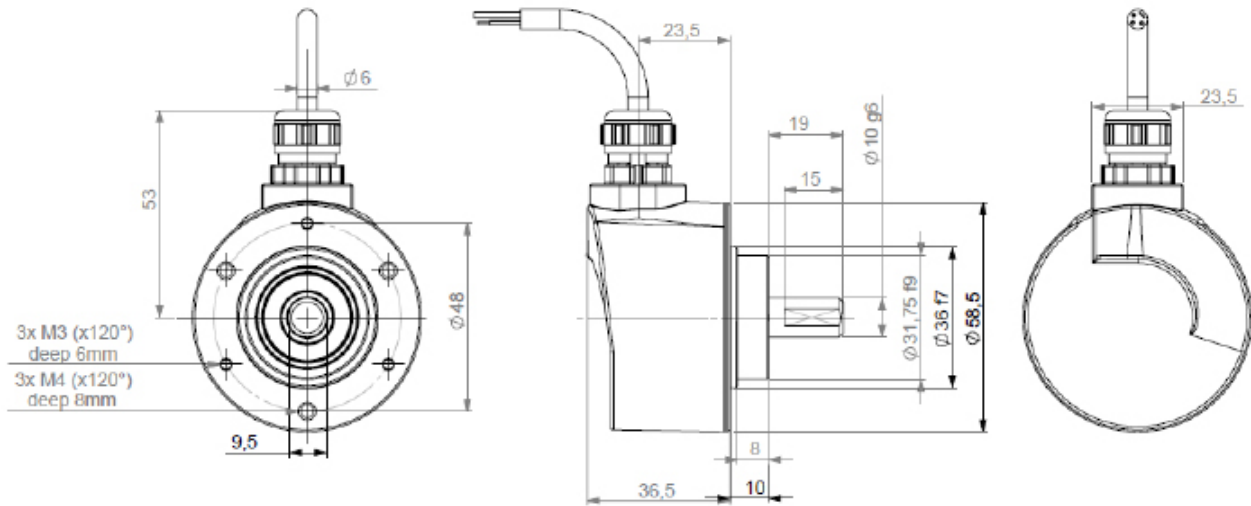
Note: Pinout number 4 is not connected - If extension cable is used: please refer to its wiring arrangement / wire colors



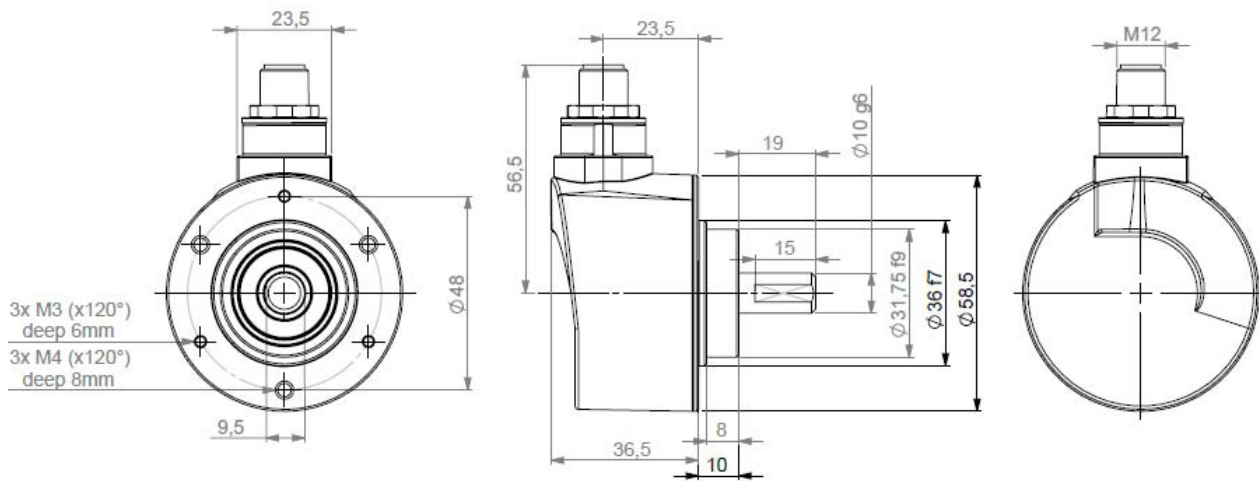
## DIMENSIONS

All dimensions are in millimeters.

### AHM5\_10 L3R connection (radial cable)



### AHM5\_10 L4R connection (radial M12)





## ORDERING OPTIONS

Example : AHM5\_10//3L11//00360//L3R020

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

<b>Family</b>	AHM5	10	//	3L1	1	//	00360	//	L3	R020
<b>AHM5</b>										
<b>Shaft Ø</b>										
<b>06:</b> Shaft 6mm										
<b>10:</b> Shaft 10mm										
<b>Supply Outage Stage</b>										
<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 oOutput										
<b>2LR:</b> 5V +/- 5% Ratio 10...90% Voltage Supply										
<b>Direction</b>										
<b>1:</b> CW Clockwise										
<b>2:</b> CWW Counter-clockwise										
<b>Resolution</b>										
<b>00360:</b> Analog output calibrated on 360°										
<b>Other:</b> Consult Us										
<b>Connection</b>										
<b>L3:</b> 3 Wires Cable PVC										
<b>L4:</b> M12 Connector 4 Pinouts										
<b>Connection Orientation</b>										
<b>A020:</b> Axial Cable 2m										
<b>R020:</b> Radial Cable 2m										
<b>A:</b> Axial										
<b>R:</b> Radial										



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