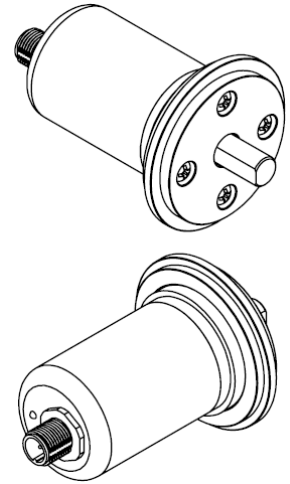


## MAGNETIC ENCODERS - ANALOG ABSOLUTE SINGLE TURN - AXM4 RANGE

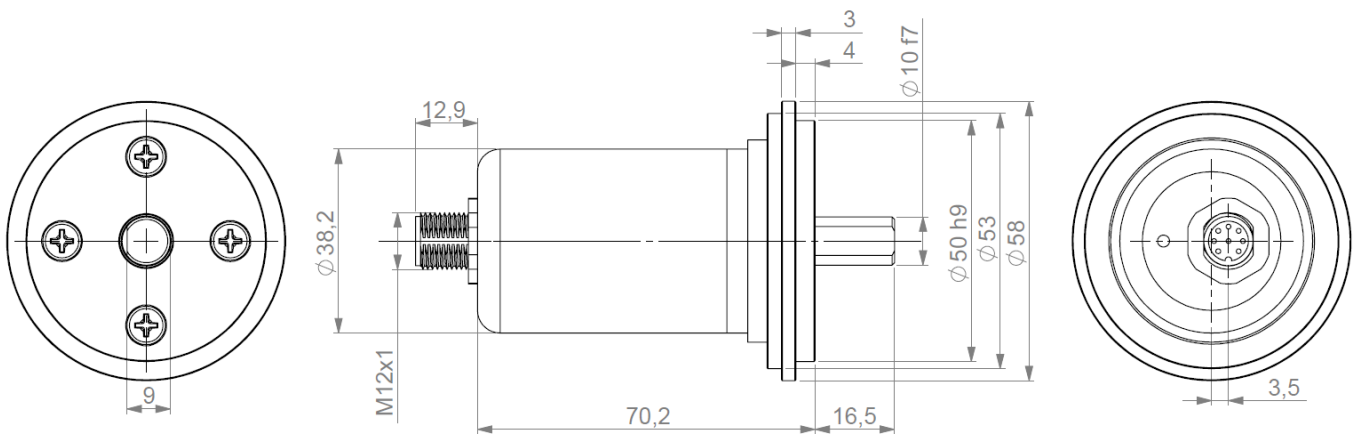


AXM4, single-turn encoder – 58mm servo flange - with analog output :

- Robust and compact conception.
- Heavy-duty conception : Stainless steel – IP69K.
- Solid shaft  $\varnothing$  10 mm version.
- Precision ball bearings.
- High temperature performances  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ .
- Magnetic technology encoder.
- Analog output : 4-20mA, 0-20mA, 0.5-5Vdc, 0-5Vdc or 0-10Vdc,
- Analog output calibration possibility (minimum angle  $22.5^{\circ}$  angle).
- Resolution : 12 bits.
- Polarity inversion and over-voltage-peak protection.
- Highly integrated circuit in SMD-technology.



### DIMENSIONS AXM4S10 M12 AXIAL WITH SERVO FLANGE



### MECHANICAL CHARACTERISTICS

Material	Cover : stainless steel	Vibrations (EN 60068-2-6)	$\leq 30$ g (10Hz... 1 000Hz)		
	Body : stainless steel	Weight	350 g		
	Shaft: stainless steel	Operating temperature	$-30 \dots +85^{\circ}\text{C}$		
Max. shaft loading	Axial : 270 N	Storage temperature	$-30 \dots +85^{\circ}\text{C}$		
	Radial : 270 N	Humidity	98 % without condensation		
Shaft Inertia	$\leq 30$ g.cm <sup>2</sup>	Protection class (EN 60529)	IP 69K		
Torque	$\leq 3$ N.cm	Lifetime in $10^8$ revolutions with $F_a / F_r$ (axial / radial)			
RPM (continuous operation)	12 000 rpm	100 N / 100 N	270 N / 270 N	300 N / 300 N	
Shock (EN 60068-2-27)	$\leq 300$ g (half-sine, 6 ms)	200	10	7.6	
Shock (EN 60028-2-29)	$\leq 30$ g (half-sine, 16ms)				

## MAGNETIC ENCODERS - ANALOG ABSOLUTE SINGLE TURN - AXM4 RANGE



### ELECTRICAL CHARACTERISTICS

Single turn technology	Magnetic 2 axis Hall sensor	Turn on time	< 1 s
Resolution of output	Max 12 bits over entire measuring range	Current consumption	Typical: 50mA
Single turn accuracy	+/- 0,35°	Electrical life-time	> 10 <sup>5</sup> h
Linearity	0.15 %	EMC	EN 61000-6-4 EN 61000-6-2
Supply voltage	12 – 30Vdc	Load resistance	Current: <500Ohms
Cycle period	< 600 µs		Voltage: >10kOhms

### ANALOG CONNECTION

Reference	Type	1	2	3	4	5	Ground
00	M12 5 pinouts	Analog output	+Vcc	GND	SET 2	SET 1	Connector body

### INPUTS

Set 2	Set 1	Function
0 (N.C. or GND)	0 (N.C. or GND)	Normal operation
0 (N.C. or GND)	1 (> 12Vdc)	Preset zero point (non turning shaft)
1 (> 12Vdc)	0 (N.C. or GND)	Preset max point (non turning shaft)
1 (> 12Vdc)	1 (> 12Vdc)	Pdefault scale (non turning shaft)

### ORDERING REFERENCE

AXM4S	10	/	AA	/	5	L3	0	//	00	//	00A	//	**00**
Absolute singleturn encoder	Solid shaft Ø10mm		Stainless steel & IP69K		Supply : 12 to 30Vdc	L3 : 4-20mA  L4 : 0-20mA  L1 : 0-10Vdc	Programmable encoder		Single turn encoder		Axial M12 5 pinouts		Stainless steel servo flange