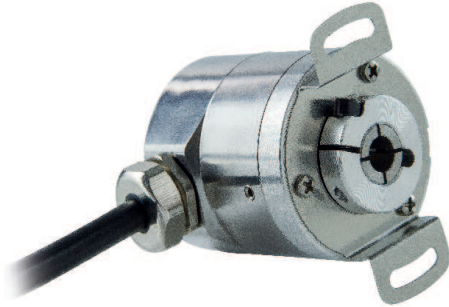


EAM 36 F / G SSI

BLIND HOLLOW SHAFT MAGNETIC MULTITURN ABSOLUTE ENCODER



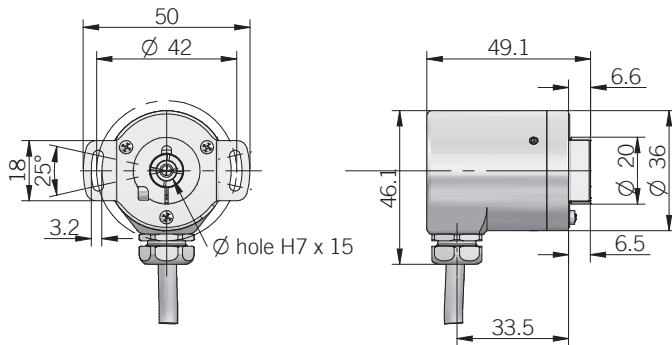
Specifications

Miniaturized multiturn absolute encoder for limited size applications.

- Magnetic sensor technology without contact (Magnetic ASIC + Energy Harvesting)
- Up to 51 bit as total resolution (12 bit single turn + 39 bit multiturn)
- 6 mm diameter blind hollow shaft
- Code reset for easy setup
- Sturdy construction thanks to separated chambers
- Power supply up to +30 VDC with SSI as electronic interface
- Cable output, connectors available on cable end

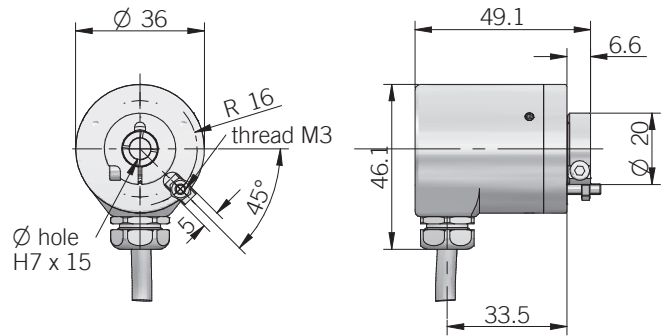
ORDERING CODE	EAM	36F	13	/	12	G	8/30	S	P	X	6	X	8	P	R	.XXX
SERIES magnetic multiturn absolute encoder series EAM																
MODEL blind hollow shaft with stator coupling 36F blind hollow shaft with antirotation pin 36G																
MULTITURN RESOLUTION turns from 1 to 39 bit																
SINGLETURN RESOLUTION from 1 to 12 bit																
CODE TYPE binary B gray G																
POWER SUPPLY 5 V DC 5 8 ... 30 V DC 8/30																
ELECTRONIC INTERFACE Serial Synchronous Interface - SSI S																
LOGIC positive P																
OPTIONS to be reported if not used X reset ZE																
BORE DIAMETER mm 6																
ENCLOSURE RATING IP 67 cover side / IP 65 shaft side X																
MAX ROTATION SPEED 8000 rpm 8																
OUTPUT TYPE cable (standard length 0,5 m) P																
DIRECTION TYPE radial R																
VARIANT custom version XXX																

EAM 36 F



dimensions in mm

EAM 36 G



anti-rotation pin is included in model G, for mounting instruction please refer to product installation notes

ELECTRICAL SPECIFICATIONS

Multiturn resolution	turns from 1 to 39 bit
Singleturn resolution	from 1 to 12 bit
Power supply	5 = 4,75 ... 5,25 V DC 8/30 = 7,6 ... 30 V DC (reverse polarity protection)
Power draw without load	< 400 mW
Output type	RS-422
Code type	binary or gray
Auxiliary inputs (U/D - Reset)	active high (+Vdc) connect to OV if not used / Reset t_{min} 150 ms
Clock frequency	100 kHz ... 1 MHz
SSI monostable time (Tm)	20 μ s
SSI pause time (Tp)	> 35 μ s
SSI frame	Tree format (MSB ... LSB) up to 12 bit multiturn = lenght 25 bit (12MT + 12ST + '0') 13 to 14 bit multiturn = lenght 27 bit (14MT + 12ST + '0') 15 to 19 bit multiturn = lenght 32 bit (19MT + 12ST + '0')
Accuracy	\pm 0,35° typical
Counting direction	decreasing clockwise (shaft view)
Start-up time	150 ms
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

MECHANICAL SPECIFICATIONS

Bore diameter	\varnothing 6 mm
Enclosure rating	IP 67 cover side / IP 65 shaft side (IEC 60529)
Rotation speed	8000 rpm continuous / 10000 rpm max
Max shaft load	20 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,001 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,01 Nm
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	AISI 420 stainless steel
Material	EN-AW 2011 aluminium
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-20° ... +85°C (-4° ... +185°F)
Storage temperature	-20° ... +85°C (-4° ... +185°F)
Fixing torque for collar clamping	0,6 Nm recommended
Weight	150 g (5,29 oz)

CONNECTIONS

Function	Cable colours
+ Vdc	red
0.Volt	black
data +	green
data -	brown
clock +	yellow
clock -	orange
U / D	red-blue
RESET	white
\perp	shield