

## EAM 36 F / G SSI

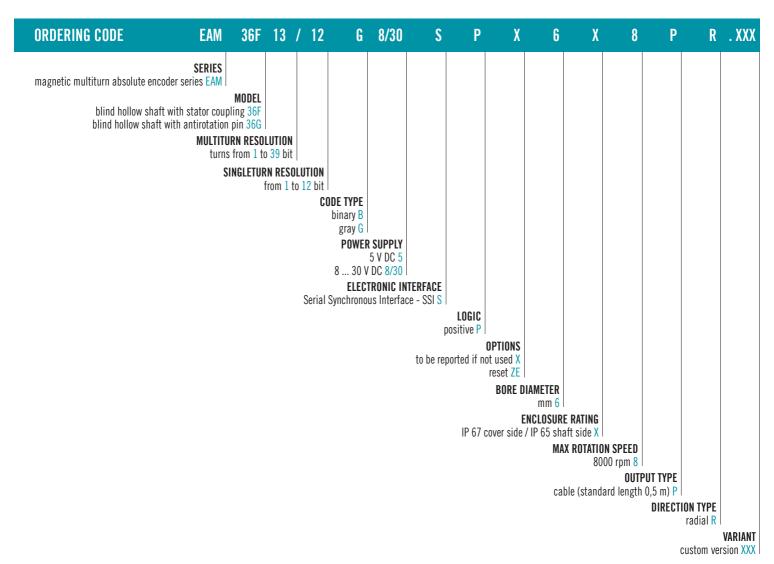
# BLIND HOLLOW SHAFT MAGNETIC MULTITURN ABSOLUTE ENCODER



### **Specifications**

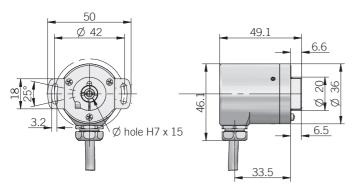
Miniaturized multiturn absolute encoder for limited size applications.

- $\cdot$  Magnetic sensor technology without contact (Magnetic ASIC + Energy Harvesting)
- $\cdot$  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





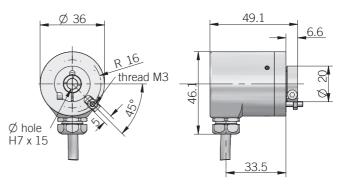
#### **EAM 36 F**



dimensions in mm

#### **ELECTRICAL SPECIFICATIONS Multiturn resolution** turns from 1 to 39 bit Singleturn resolution from 1 to 12 bit $5 = 4,75 \dots 5,25 \text{ V DC}$ $8/30 = 7,6 \dots 30 \text{ V DC}$ (reverse polarity protection) Power supply Power draw < 400 mW without load Output type RS-422 Code type binary or gray active high (+Vdc) **Auxiliary inputs** (U/D - Reset) connect to OV if not used / Reset $t_{\it min}$ 150 ms **Clock frequency** 100 kHz ... 1 MHz SSI monostable 20 μs time (Tm) SSI pause time (Tp) $> 35 \mu s$ 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') SSI frame Accuracy ± 0,35° typical **Counting direction** decreasing clockwise (shaft view) Start-up time 150 ms IEC 61000-6-2 Electromagnetic compatibility | IEC 61000-6-4

#### **EAM 36 G**



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

MECHANICAL SPECIFICATIONS	
Bore diameter	ø 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 <sup>-6</sup> kgm <sup>2</sup>
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° 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
÷	shield