

## EA 36 A SSI

### SOLID SHAFT MAGNETIC SINGLETURN ABSOLUTE ENCODER

#### Specifications

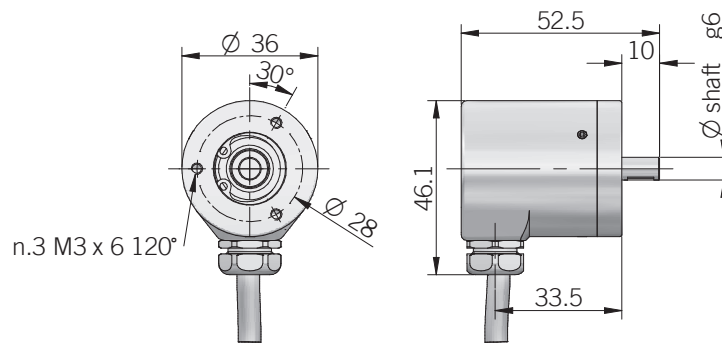


Miniaturized singleturn absolute encoder for limited size applications.

- 6 mm diameter solid shaft
- Magnetic ASIC (Magnetic sensor technology without contact)
- Power supply up to +30 VDC with SSI as electronic interface
- Resolution up to 12 bit (4096 ppr)
- Cable output, connectors available on cable end
- Mounting by fixing flange
- Code reset for easy setup
- Sturdy construction thanks to separated chambers

ORDERING CODE	EA	36A	12	G	8/30	S	P	X	6	X	8	P	R	.XXX
<b>SERIES</b> magnetic singleturn absolute encoder series EA														
<b>MODEL</b> fixing flange screw holes $\varnothing$ 28 mm 36A														
<b>SINGLETURN RESOLUTION</b> from 1 to 12 bit 360 / 720 ppr <i>please directly contact our offices for other pulses</i>														
<b>CODE TYPE</b> binary B gray G (no powers of 2) binary offset code (0-XXX) BC (no powers of 2) gray offset code (0-XXX) GC														
<b>POWER SUPPLY</b> 5 V DC 5 8 ... 30 V DC 8/30														
<b>ELECTRONIC INTERFACE</b> Serial Synchronous Interface - SSI S														
<b>LOGIC</b> positive P														
<b>OPTIONS</b> to be reported if not used X reset ZE														
<b>SHAFT DIAMETER</b> mm 6														
<b>ENCLOSURE RATING</b> IP 67 cover side / IP 65 shaft side X														
<b>MAX ROTATION SPEED</b> 8000 rpm 8														
<b>OUTPUT TYPE</b> cable (standard length 0,5 m) P														
<b>DIRECTION TYPE</b> radial R														
<b>VARIANT</b> custom version XXX														

## EA 36 A



dimensions in mm

### ELECTRICAL SPECIFICATIONS

<b>Singleturn resolution</b>	from 1 to 12 bit 360 / 720 ppr
<b>Power supply</b>	5 = 4,75 ... 5,25 V DC 8/30 = 7,6 ... 30 V DC (reverse polarity protection)
<b>Power draw without load</b>	< 400 mW
<b>Output type</b>	RS-422
<b>Code type</b>	binary or gray
<b>Auxiliary inputs (U/D - Reset)</b>	active high (+Vdc) connect to 0V if not used / Reset tmin 150 ms
<b>Clock frequency</b>	100 kHz ... 1 MHz
<b>SSI monostable time (Tm)</b>	20 µs
<b>SSI pause time (Tp)</b>	> 35 µs
<b>SSI frame</b>	(MSB ... LSB) 1 ... 12 bit = 13 bit data length
<b>Accuracy</b>	± 0,35° typical
<b>Counting direction</b>	decreasing clockwise (shaft view)
<b>Start-up time</b>	150 ms
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

### MECHANICAL SPECIFICATIONS

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

### CONNECTIONS

Function	Cable output
+ Vdc	red
0 Volt	black
U / D	red / blue
data +	green
data -	brown
clock +	yellow
clock -	orange
RESET	white
⏏	shield