

MAIN FEATURES

Miniaturized singleturn absolute encoder for limited size applications.

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


ORDERING CODE
EA 36A 12 G 8/30 S P X 6 X 8 P R .XXX

SERIES
magnetic singleturn absolute encoder series **EA**

MODEL
fixing flange screw holes $\varnothing$ 28 mm **36A**

SINGLETURN RESOLUTION
from 1 to 12 bit
360 / 720 ppr
please directly contact our offices for other pulses

CODE TYPE
binary **B**
gray **G**
(no powers of 2) binary offset code (0-XXX) **BC**
(no powers of 2) gray offset code (0-XXX) **GC**

POWER SUPPLY
5 V DC **5**
8 ... 30 V DC **8/30**

ELECTRICAL INTERFACE
Serial Synchronous Interface - SSI **S**

LOGIC
positive **P**

OPTIONS
to be reported if not used **X**
reset **ZE**

SHAFT DIAMETER
mm **6**

ENCLOSURE RATING
IP 67 cover side / IP 65 shaft side **X**

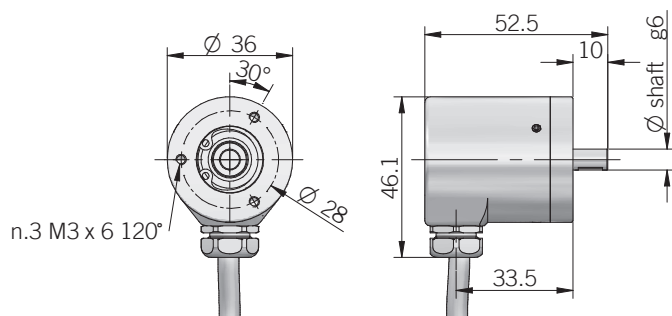
MAX ROTATION SPEED
8000 rpm **8**

OUTPUT TYPE
cable (standard length 0,5 m) **P**

DIRECTION TYPE
radial **R**

VARIANT
custom version **XXX**

36 A



dimensions in mm

ELECTRICAL SPECIFICATIONS

Singleturn resolution	from 1 to 12 bit 360 / 720 ppr
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 (SN65LBC179Q or equivalent)
Code type	binary or gray
Auxiliary inputs (U/D - Reset)	active high (+V DC) connect to 0 V if not used / Reset tmin 150 ms
Clock frequency	100 kHz ... 1 MHz
SSI monostable time (Tm)	20 µs
SSI pause time (Tp)	> 35 µs
SSI frame	(MSB ... LSB) 13 bit data length (12ST+0')
Accuracy	± 0,35° typical
Counting direction	decreasing clockwise (shaft view)
Start-up time	150 ms
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive
UL / CSA	certificate n. E212495

* for further details please see OUTPUT LEVELS under TECHNICAL BASICS section

MECHANICAL SPECIFICATIONS

Shaft 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 ⁻⁶ kgm ² (0,02 x 10 ⁻⁶ lbf ²)
Starting torque (at +20°C / +68°F)	< 0,01 Nm (1,42 Ozin)
Bearing stage material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	AISI 420 stainless steel
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)
Weight	150 g (5,29 oz)

CONNECTIONS

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

SSI SCHEMATICS

