



Magnetic scanning  
with permanent magnet and  
Hall sensor  
Solid mechanical construction  
High load capacity



## Euro Absolut Encoder EA 36 / EAM 36

Magnetic absolute encoder  
Single-turn and Multi-turn of high resolution

### Resolution

#### Resolution (Steps/360°):

8192 = 13 bit      4096 = 12 bit

### Measuring range

#### Measuring range

Single-Turn	1 turn
Multi-Turn	8192 turns = 13 bit 4096 turns = 12 bit

### Type explanation

#### EA 36-24G-30-D-R

Encoder type	Absolute
Flange diameter	ø 36 mm
Case diameter	ø 36 mm
Number of bits	12 = 12 bits x 1 turn 13 = 13 bits x 1 turn 24 = 12 bits x 4096 turns 25 = 13 bits x 4096 turns 25A = 12 bits x 8192 turns
Single-turn	Yes
Multi-turn	Yes
Electronic adjustment	Yes
Supply voltage	30 = 10..30 VDC
Output driver	D-SSI
Position of connection	R
Shaft diameter	ø 6 mm

## Technical data

### Mechanical data

Rotational speed	? 12000 min <sup>-1</sup>
Torque	? 3 Ncm
Moment of inertia	30 g cm <sup>2</sup>
shaft loading	110 N radial 40 N axial
Operational life of ball bearings	> 1 x 10 <sup>5</sup> h (1000 min <sup>-1</sup> )
Weight	? 0,15 kg

### Environmental conditions

Vibration	100 m/s <sup>2</sup> (10 ... 1000 Hz)
Shock	1000 m/s <sup>2</sup> (11 ms)
Operating temperature	-30 ... +70°C
Storage temperature	-30 ... +70°C
Atmospheric humidity	? 98% r.h.
Protection class	IP 54

### Electrical data

Scanning type	Magnetic, without contact
Scanning frequency LSB	1,67 kHz
Measurement accuracy	± 2 LSB
Supply voltage	V <sub>cc</sub> = 10...30 VDC
Power consumption	? 90 mA (V <sub>cc</sub> = 24 V)

### Electrical connections

#### SSI

Interface	RS485
Clock	Optocoupler

#### Inputs

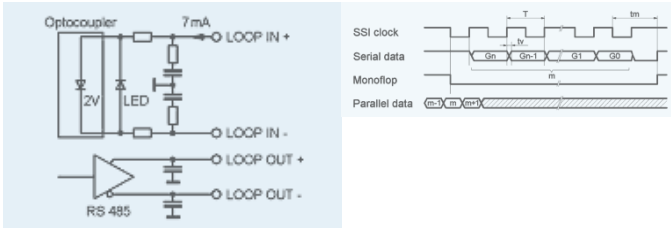
Rotational direction	CW/CCW
Electronic adjustment	RESET (optional)

## Cable

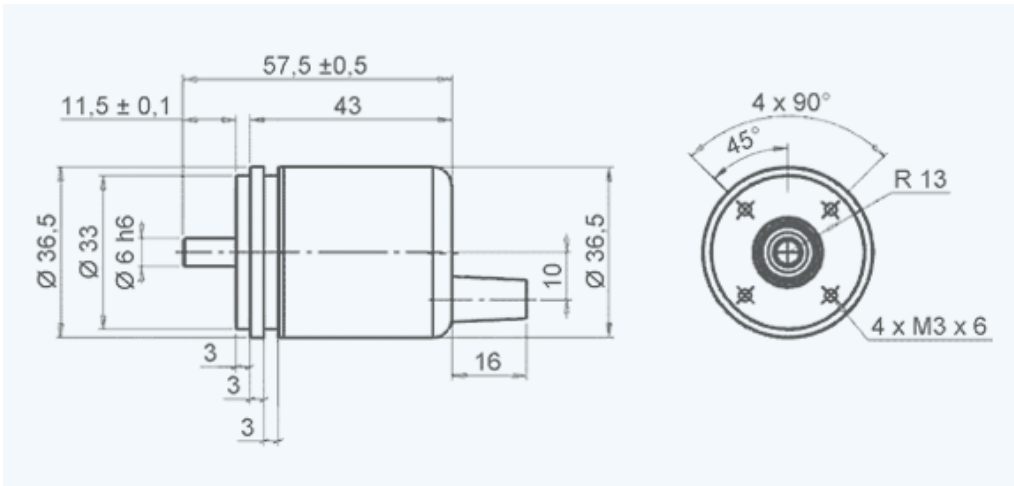
### Wire colour

Wire colour	Signal
White	0 V GND
Brown	+Vcc
Green	Clock+
Yellow	Clock-
Grey	Data+
Pink	Data-
Blue	RESET
Red	CW/CCW

## Channel schematic



## Outline drawing



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