

## Euro Absolut No Shaft Encoder CAH 36 S / CAH 36 M

Magnetic absolute encoder with hollow shaft  
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

#### CAH 36M-24G-30-D-R

Encoder type	Absolute
Hollow shaft	Yes
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	$\leq 12000 \text{ min}^{-1}$
Torque	$\leq 3 \text{ Ncm}$
Moment of inertia	$30 \text{ g cm}^2$
shaft loading	110 N radial 40 N axial
Operational life of ball bearings	$> 1 \times 10^5 \text{ h (1000 min}^{-1}\text{)}$
Weight	$\leq 0,15 \text{ kg}$

### Environmental conditions

Vibration	$100 \text{ m/s}^2 (10 \dots 1000 \text{ Hz})$
Shock	$1000 \text{ m/s}^2 (11 \text{ ms})$
Operating temperature	$-30 \dots +70^\circ\text{C}$
Storage temperature	$-30 \dots +70^\circ\text{C}$
Atmospheric humidity	$\leq 98\% \text{ r.h.}$
Protection class	IP 54

### Electrical data

Scanning type	Magnetic, without contact
Scanning	Permanent magnet and Hall sensor
Scanning frequency LSB	1,67 kHz
Measurement accuracy	$\pm 2 \text{ LSB}$
Supply voltage	$V_{cc} = 10 \dots 30 \text{ VDC}$
Power consumption	$\leq 90 \text{ mA (} V_{cc} = 24 \text{ V)}$

### Electrical connections

#### SSI

Interface	RS485
Clock	Optocoupler

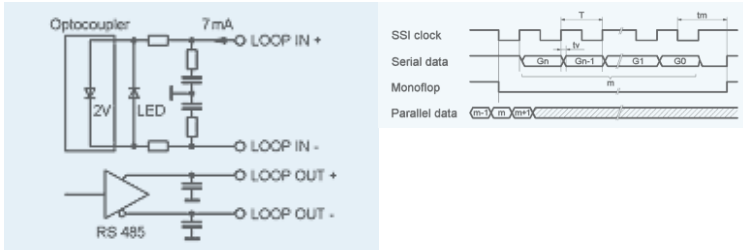
#### Inputs

Rotational direction	CW/CCW
Electronic adjustment	RESET (optional)

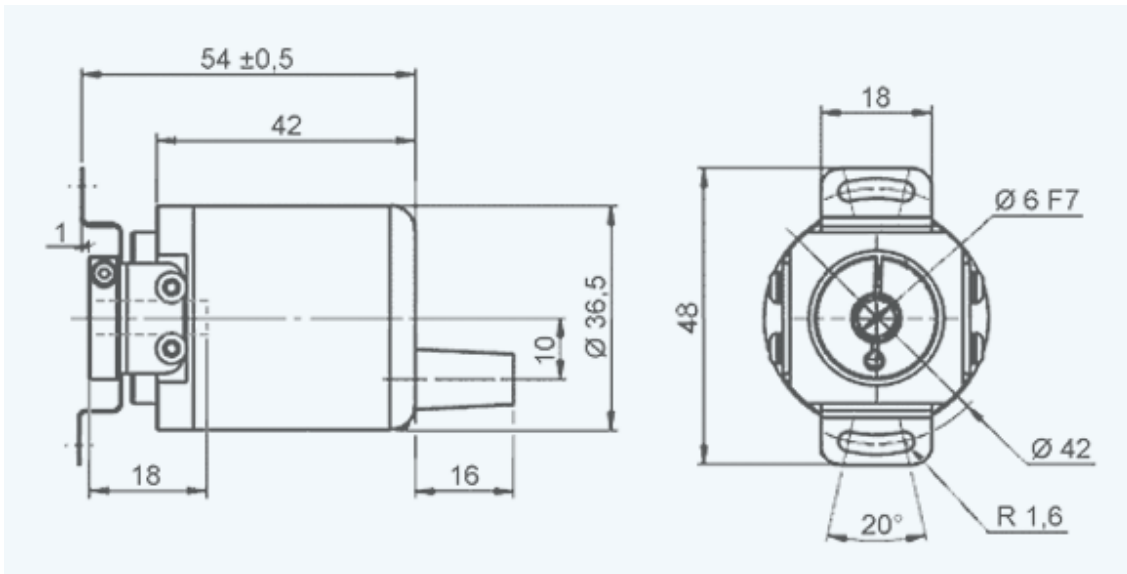
## Cable

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

## Channel schematic



## Outline drawing



Version AE 677-807 · Subject to change

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