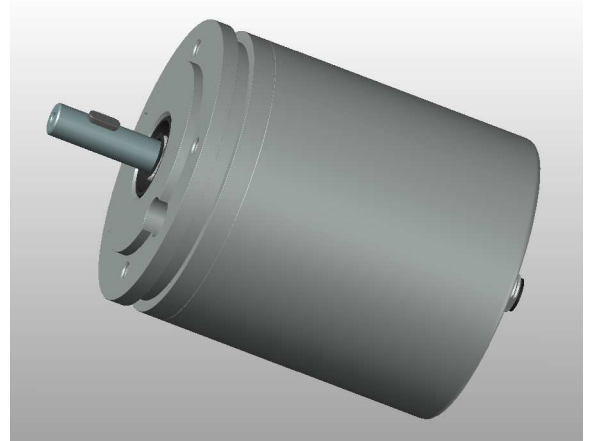


Geared Angle Sensor GP88-15

IBS-Part-No.: IBSGP46

- **Measuring range :** 15 revolutions
- **Output signal :** 4 - 20 mA
- **Excellent Linearity :** typical 0,075 % full scale
- **Temperature range :** -40°C to +75°C
- **Very low temperature drift :** typical 10 ppm / °C



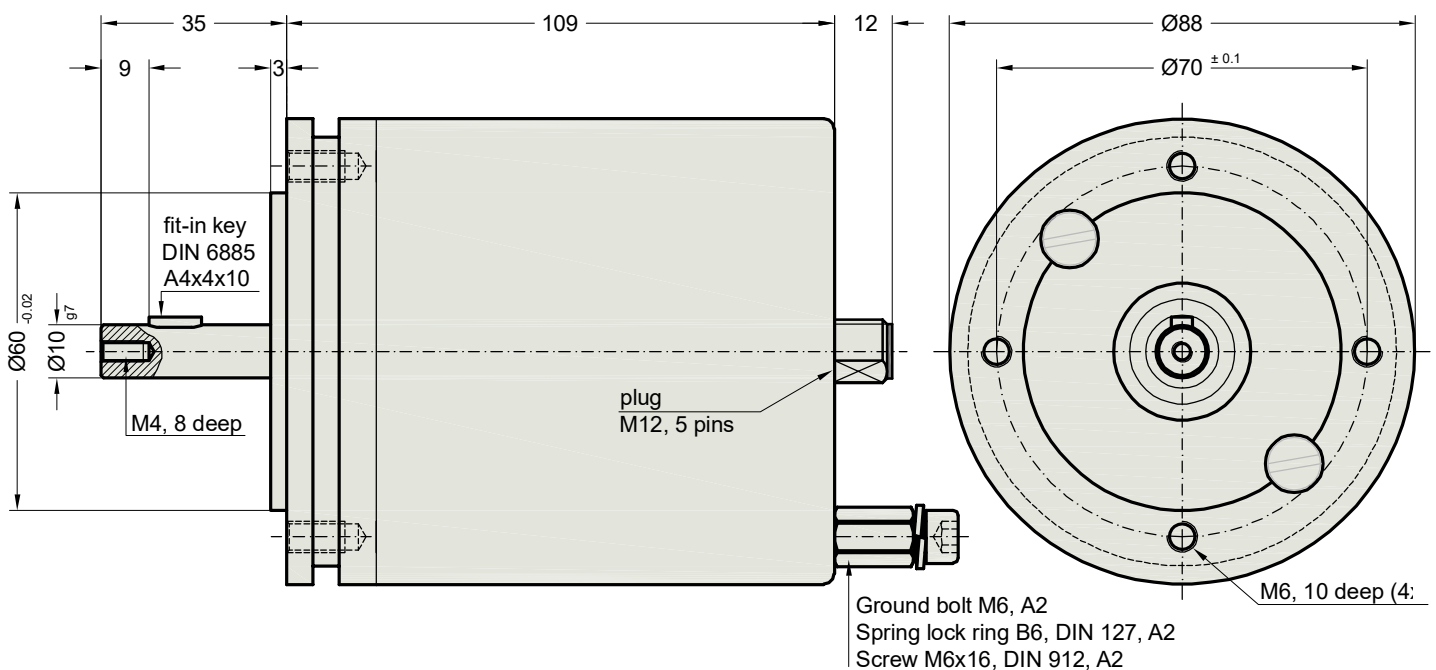
Application

This Sensor has been designed for applications that require higher operation reliability. Because of its excellent technical specifications, it is suitable for many applications, like elevating work platforms for example.

Technology

The rust-proof shaft drives a reduction gear, which again turns two sensor potentiometers. The angle information is captured by two independent potentiometric measuring systems. Two integrated transducers transform the angle information into analog norm signals 4 - 20 mA.

Dimension diagram



Doc.: GP88000079

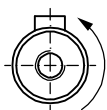
Design

- Anodized aluminum housing, enclosure protection IP 66
- Plug M12, 5 pins (IP 66 when connected)
- The housing can be mounted with 4 screws M6.

Technical data

Electrical data

Power supply :	18 - 35 V DC
Measuring range :	15 revolutions (5400°)
Mechanical range :	17 revolutions (6120°)
Output signal :	4 - 20 mA
Sensitivity :	1,066 mA / revolution
Linearity :	typical 0,075 % full scale
Temperature drift :	typical ± 10 ppm / °C
Repetition accuracy :	better than 0,02 % full scale
Life span :	typical 100 Mio. revolutions
Sense of rotation :	counterclockwise



increasing signal
(looking on top of the shaft)

Gear

Gear ratio	17 : 1 (spinning)
Gear play :	$\pm 0.5^\circ$ related to 6120°

Environmental conditions

Working temperature range :	-40 °C to +75 °C
Humidity :	5 % to 95 %

Housing

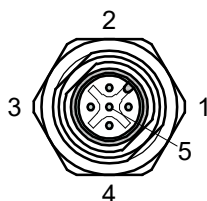
Protection class :	IP 66 (EN 60529)
Weight :	1,2 kg
Dimensions :	Ø88 x 106,5 mm
Housing :	AlMgSi1, anodized (sea-water resistant)
Shaft :	Ø10 _{g7} x 32 mm, rust-proof

Electrical connection

plug

Binder series 713

M12, 5 pole



Pin assignment

1 :	power (+ 24 V DC ± 25 %)
2 :	signal A (4 - 20 mA)
3 :	GND (0 V)
4 :	signal B (4 - 20 mA)
5 :	shield (housing connection)

Additional scope of delivery (has to be ordered separately)

- fastening-part kit (IBS-Part-No.: IBSPAD1)

1x adapter

1x hexagon socket head screw
DIN 912, M4 x 50, A2

1x spring washer
DIN 127, B4, A2

