

SINGLETURN SHAFT ENCODER Model CA 105 absolute/electro-optical

- Resolution up to 720 counts per 360°
- Output codes: BCD or Binary
- Zero point adjustment device
- Heavy duty configuration
- Environmental protection IP 65

TWK

Constructional features

Anodized aluminium housing - Stainless steel shaft (10 mm dia) - Sealed ball bearings - Plastic code disc - Gallium-Arsenide diodes - Phototransistors followed by trigger - Mounting face to DIN 42948, size C 105, with four M6 threaded holes.

Standard types

- CA 105-360B:** 360 counts per revolution, BCD output code, resolution 1°
- CA 105-720R:** 720 counts per revolution, Binary output code, resolution 0,5°

Electrical specification

- Angular accuracy: $\leq \pm 15'$
- Light sources: GaAs-diodes
- Output circuitry: Open collector, positive logic
5 to 15 V $I_{max.} = 35$ mA
15 to 24 V $I_{max.} = 15$ mA
(external pull-up resistance to be fitted by user)
- Supply voltage: 12 to 30 VDC (internal constant current source)
- Current requirement: 320 mA approx.
- Code direction: Upward count when turning CCW, can be inverted by external strap
- Read-out frequency: 3000 rpm max.
- Parity bit: Electronically generated

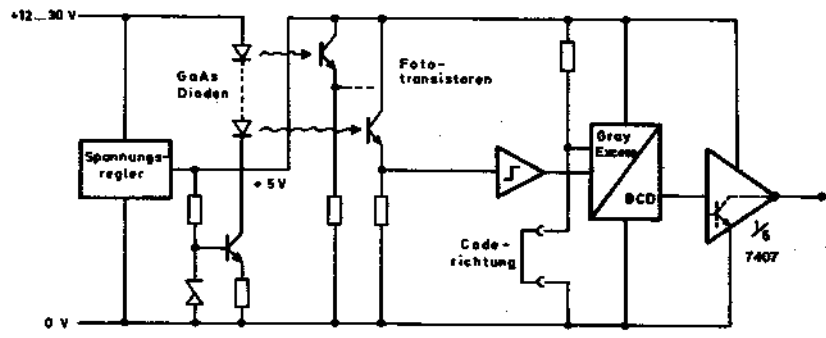
Zero-point adjustment

In order to adjust the zero-point when the encoder is fixed and coupled to its driving shaft the hex head screw at the rear cover is to be retracted. A special key which is supplied with each encoder can now be inserted to adjust the code disc with respect to the position of the input shaft of the encoder.

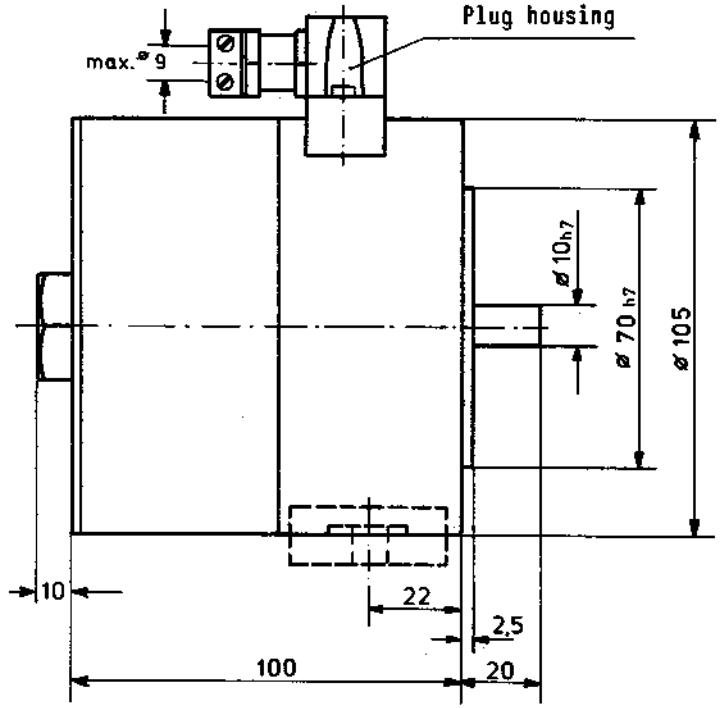
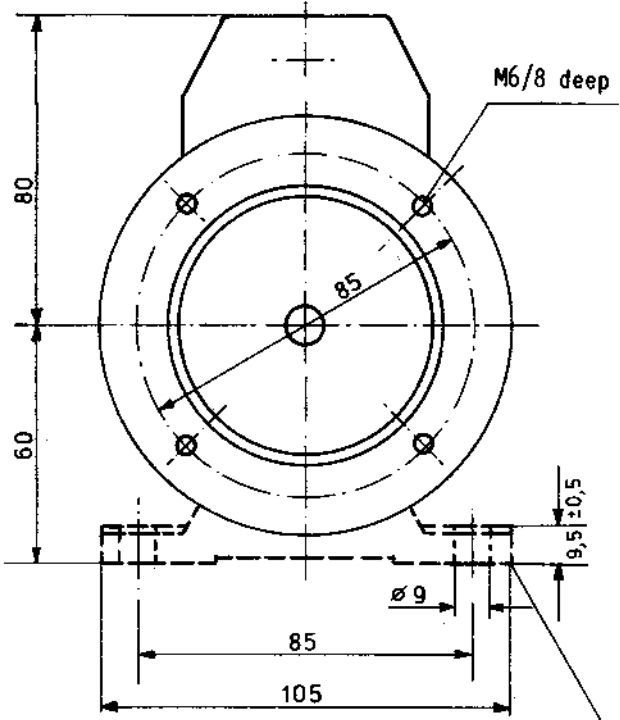
Mechanical specification

- Slewing speed: 3000 rpm max.
- Starting torque: ≤ 5 Ncm
- Shaft load max: 250N radial, 200N axial
- Useful life of bearings: 10^9 rev. at max. load and max. speed
- Operating temperature: - 5°C to + 50°C
- Storage temperature: - 25° to + 70°C
- Vibration: 5 Hz to 1000 Hz/10 g
- Shock: 20 g/11 ms
- Weight: 1.8 kg
- Environmental protection: IP 65 (dust and water to DIN 40050)
- Connector type: DA 15 with special sealed case (IP 65)

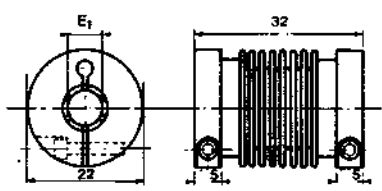
Basic circuitry



Dimensions in mm



Mounting bracket



Stainless steel bellow coupling 491/...
Dia "E1": 8,10 or 12 mm both sides

Accessories

Mating plug with DA 15 S sockets and sealed housing is supplied with each encoder. Coupling and mounting bracket must be ordered separately.

Encoders with BCD-output can be used with TWK-indicators WA 100 and WV 104 (Data Sheet 2833EA).