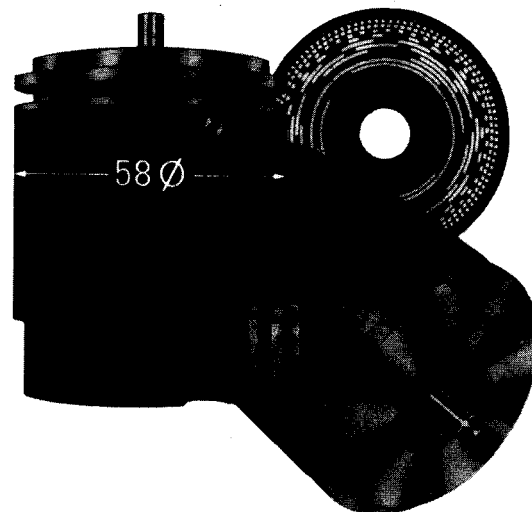


- **LOW-COST, compact for mechanical engineering applications**
- **Gray or Gray-Excess output code**
- **Resolution 720 oder 1024 positions / 360° (10 Bit)**
- **Case diameter only 58 mm**
- **Protected to IP 65**
- **Option : Extended operating temperatur range from -40° bis +85°C**



Construction

Flange in anodised aluminium - case in glass-fibre - shaft in stainless steel - 9 mm ball-bearings with Nilos ring seal - connector with compression gland at lead output -

Code disc in deformation resistant plastic - GaAIAs diode as light source - photo-transistor array - comparator and trigger circuits in SMD technology.

Resolutions (positions / 360°) and types of output code

Positions / 360°	90	128	180	256	360	512	720*	1024*
Code**	E	G	E	G	E	G	E	G
Bit	7	7	8	8	9	9	10	10

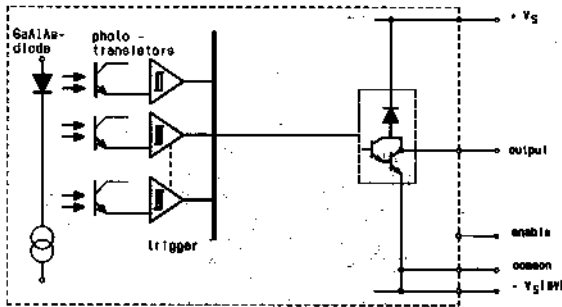
* The other resolutions can be obtained with these versions. ** G = Gray; E = Gray-Excess

Technical Data

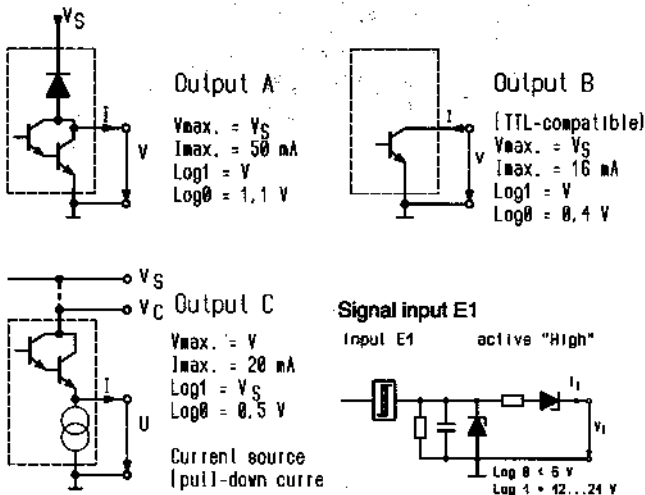
- **Sensor system:** GaAIAs diode, photo-transistor array
- **Paralell outputs curcuits :**
 - A = Open collector Darlington
 - B = Open collector, TTL compatible
 - C = Open emitter, Darlington
- **Supply voltage range :** +10,5 V to 26,5 VDC
- **Supply current :** 50 mA
- **Output frequency :** 30 kHz max.
- **Measurement position deviation :** 10' 32"
- **Disc coding :** Gray code or Gray-Excess
- **Code sense :** CW or CCW selectable by connecting MSB or MSB
- **Enable circuit (for bus operation) :** Activ or inactiv Signal input E1

- **Operating speed :** 3000 rpm max. (continuous)
4000 rpm max. (short period)
- **Inertial mass of rotor :** 35 gcm²
- **Operating torque :** ≤ 1 Ncm
- **Wind-up torque :** ≤ 0.2 Ncm
- **Permissible axial and radial shaft load :** 100 N
- **Bearing life expectancy :** 10⁹ revolutions
- **Operating temperature range:** - 5°C to + 60°C
- **Storage temperature range :** - 25°C to + 70°C
- **Resistance to shock :** 200 m/s²; 11 ms (DIN IEC 68)
- **Resistance to vibration :** 5 Hz ... 1000 Hz ; 100 m/s² (DIN IEC 68)
- **Protection:** IP 65 when used with the supplied connector cover
- **Mass:** 240 g

Block diagram (Output A)



Output circuits and signal input

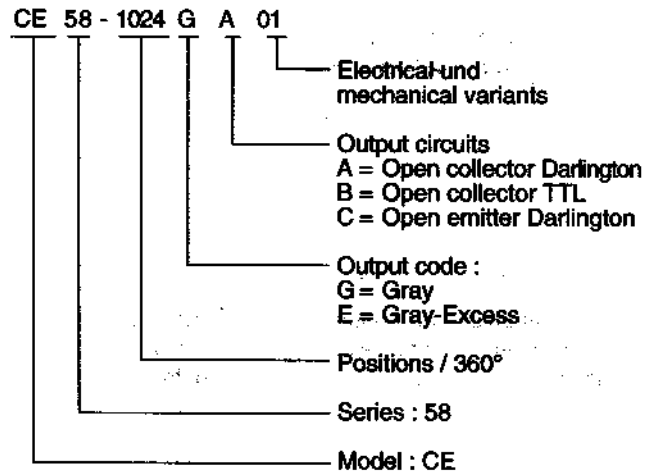


Electrical connections

The electrical connection is implemented using a 15 pin connector (DA 15) with a special connector cover giving protection to IP 65.

Both a radial and an axial opening are provided in the cover so that selection of the appropriate lead output can be made by the customer using the PG 9 compression gland (permissible lead diameter 6 to 9 mm). If the cover is not required, the mating connector DA 15S can also be connected open, but without locking.

Order code format

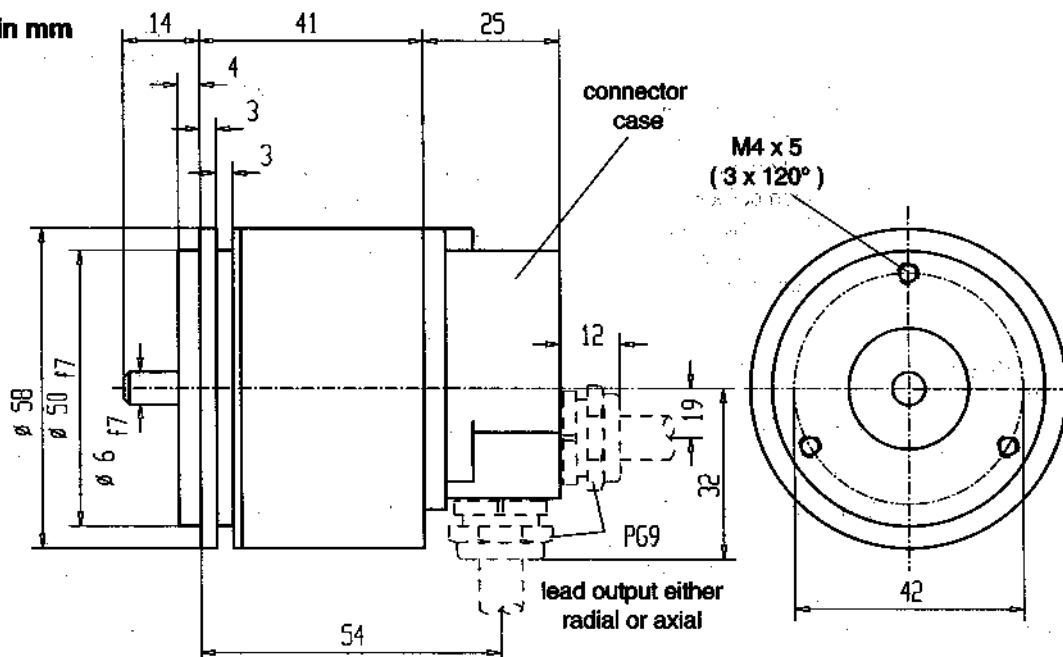


Options and variants

The following deviations from the standard version are possible :
(Please enquire stating quantities required .)

- Operating temperatur range : - 40° to + 85°C
- Supply voltage range : 5 VDC
- Output : Tristate HCMOS ("F")
- Revolutions : Other numbers of positions / 360° up to 4096 (3600) positions
- Dimensions : Other flange shapes and shaft sizes
- Electrical connector : DA 15 with locking (IP 30)

Dimensions in mm



PG compression gland, mating connector DA 15S and connector case are included separately in the supplied items. The lead is not included.