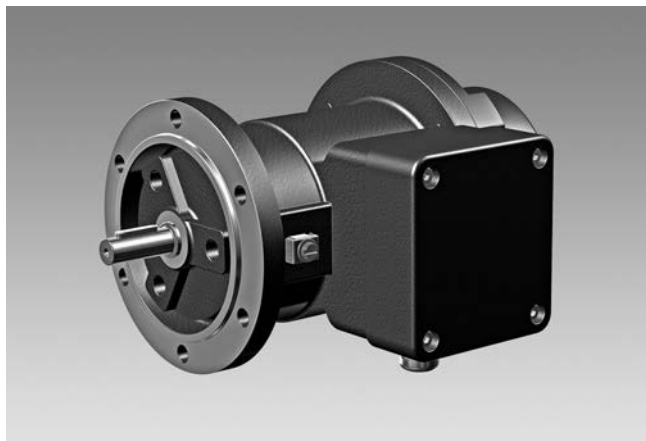


Tachogenerators

Ex approval ATEX II 2 G Ex db eb IIC T6 Gb

Solid shaft $\varnothing 14$ mm with EURO flange B10

TG 74 d



EExGP 0,2

Features

- Tachogenerator / ATEX
- Ex-approved by ATEX II 2 G Ex db eb IIC T6 Gb
- Low response time
- Solid shaft $\varnothing 14$ mm
- EURO flange B10
- High signal quality due to patented LongLife technology
- Recognition of sense of rotation

Technical data - electrical ratings

| | |
|--------------------------------|--|
| Reversal tolerance | ≤ 0.1 % |
| Linearity tolerance | ≤ 0.15 % |
| Temperature coefficient | ± 0.06 %/K (open-circuit) |
| Isolation class | B |
| Calibration tolerance | ± 5 % |
| Climatic test | Humid heat, constant (IEC 60068-2-3, Ca) |
| Performance | 12 W (speed ≥ 5000 rpm) |
| Armature-circuit time-constant | < 150 μ s |
| Voltage | 20...150 mV per rpm |
| Interference immunity | EN 61000-6-2 |
| Emitted interference | EN 61000-6-3 |
| Approvals | CE, ATEX |

Technical data - mechanical design

| | |
|-------------------------|--|
| Size (flange) | $\varnothing 115$ mm |
| Shaft type | $\varnothing 14$ mm solid shaft |
| Protection DIN EN 60529 | IP 54 (T6) |
| Torque | 1.5 Ncm |
| Rotor moment of inertia | 1.15 kgcm ² |
| Admitted shaft load | ≤ 60 N axial ≤ 80 N radial |
| Materials | Aluminium die cast alloy Shaft: stainless steel |
| Ambient temperature | -20...+55 °C |
| Resistance | IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms |
| Corrosion protection | IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2 |
| Explosion protection | II 2 G Ex db eb IIC T6 Gb (gas) |
| Weight approx. | 3.8 kg |
| Connection | Screw terminal connector |

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Part number

TG74-

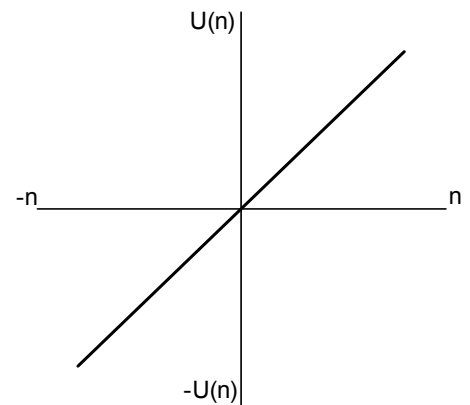
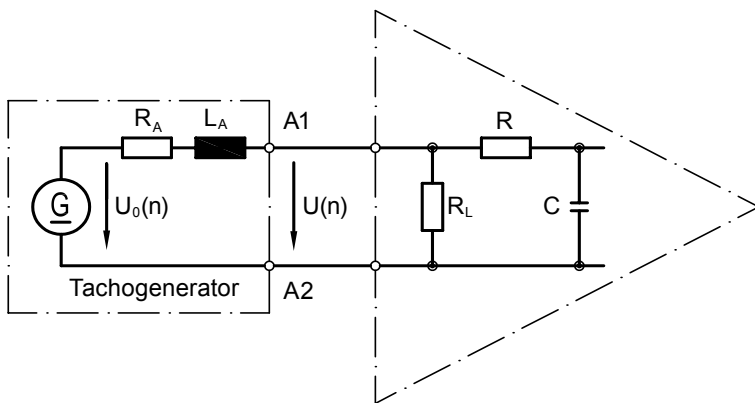
Voltage
2d 20 mV per rpm
4d 40 mV per rpm
6d 60 mV per rpm
10d 100 mV per rpm
15d 150 mV per rpm

Data according to type

| Type | Voltage (DC) U [mV/rpm] | At current I [mA] | Minimum load required depending on speed range [rpm] | | | Maximum operating speed n_{max} [rpm] | Armature resistance $R_A(20^\circ C)$ [Ω] | Armature inductance L_A [mH] |
|----------|-------------------------------|-------------------------|--|--------|--------------|---|---|--------------------------------------|
| | | | 0-3000 | 0-6000 | 0- n_{max} | | | |
| TG74-2d | 20 | 200 | ≥0.3 | ≥1.2 | ≥2.2 | 8,000 | 9.2 | 45 |
| TG74-4d | 40 | 100 | ≥1.2 | ≥4.8 | ≥8.6 | 8,000 | 38 | 170 |
| TG74-6d | 60 | 66 | ≥2.7 | ≥11 | ≥15 | 7,000 | 86 | 390 |
| TG74-10d | 100 | 40 | ≥7.5 | – | ≥15 | 4,200 | 235 | 1080 |
| TG74-15d | 150 | 27 | – | – | ≥16 | 2,800 | 575 | 2420 |

Superimposed ripple (for $\tau_{RC} = 0.7$ ms): ≤0.6% (peak-peak) ≤0.2% (rms)

Replacement switching diagram



$$\tau_{RC} \approx R \cdot C \quad \tau_A \approx \frac{L_A}{R_L}$$

Polarity for positive rotating direction: A1: + A2: - (VDE)

$$U(n) = U_0(n) \frac{R_L}{R_A + R_L} \approx U_0(n) \text{ for } R > R_L \gg R_A$$

Tachogenerators

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