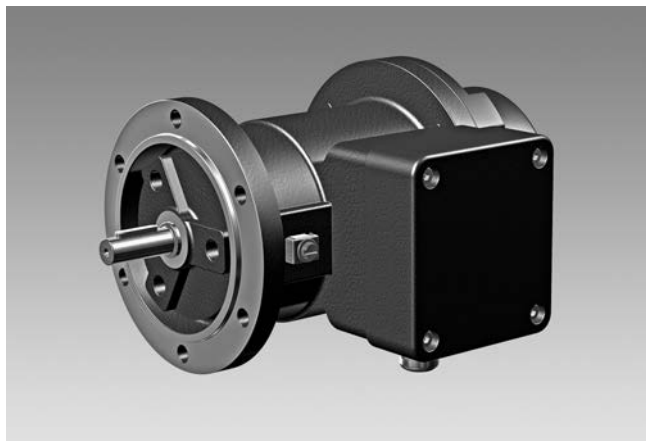


Tachogenerators

Ex approval ATEX II 2 G Ex d e IIC T6 Gb

Solid shaft $\varnothing 11$ mm or $\varnothing 14$ mm with EURO flange B10

EEx GP 0,2, TG 74 d



EEx GP 0,2

Features

- Tachogenerator / ATEX
- Ex-approved by ATEX II 2 G Ex d e IIC T6 Gb
- Low response time
- Open circuit voltage 20...150 mV per rpm (EEx GP 0,2)
- Solid shaft $\varnothing 11$ mm (EEx GP 0,2) or $\varnothing 14$ mm (TG 74 d)
- 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
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE

EEx GP 0,2

Open-circuit voltage	20...150 mV per rpm
----------------------	---------------------

TG 74 d

Voltage	20...150 mV per rpm
---------	---------------------

Technical data - mechanical design

Size (flange)	$\varnothing 90$ mm
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
Explosion protection	II 2 G Ex d e IIC T6 Gb (gas)
Weight approx.	3.8 kg
Connection	Screw terminal connector

EEx GP 0,2

Shaft type	$\varnothing 11$ mm solid shaft
------------	---------------------------------

TG 74 d

Shaft type	$\varnothing 14$ mm solid shaft
------------	---------------------------------

Tachogenerators

Ex approval ATEX II 2 G Ex d e IIC T6 Gb
Solid shaft $\varnothing 11$ mm or $\varnothing 14$ mm with EURO flange B10

EEx GP 0,2, TG 74 d

Part number

EExGP0,2 L-

TG74-

Open-circuit voltage
14 20 mV per rpm
5 40 mV per rpm
4 60 mV per rpm
3 100 mV per rpm
1 150 mV per rpm

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

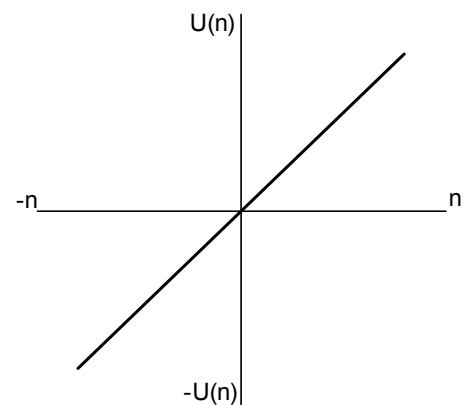
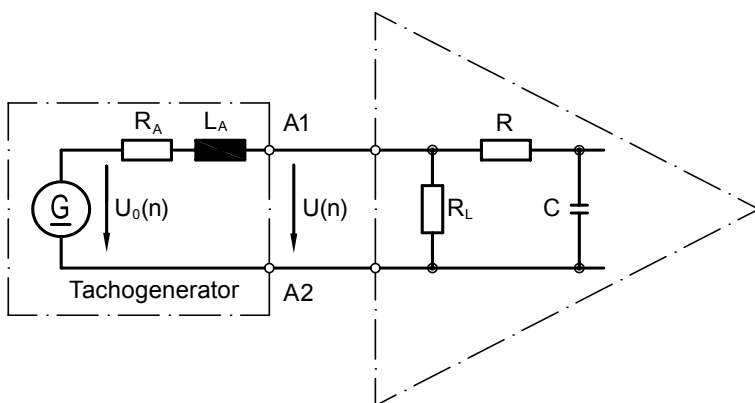
Data according to type

Type	Voltage (DC) U_0 [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°C) [Ω]	Armature inductance L_A [mH]
			0-3000 R_L [k Ω]	0-6000 R_L [k Ω]	0- n_{max} R_L [k Ω]			
EExGP0,2 L-14	20	open-circuit	≥ 0.3	≥ 1.2	≥ 2.2	8000	9.2	45
EExGP0,2 L-5	40	open-circuit	≥ 1.2	≥ 4.8	≥ 8.6	8000	38	170
EExGP0,2 L-4	60	open-circuit	≥ 2.7	≥ 11	≥ 15	7000	86	390
EExGP0,2 L-3	100	open-circuit	≥ 7.5	–	≥ 15	4200	235	1080
EExGP0,2 L-1	150	open-circuit	–	–	≥ 16	2800	575	2420

Type	U [mV/rpm]	I [mA]	0-3000 R_L [k Ω]	0-6000 R_L [k Ω]	0- n_{max} R_L [k Ω]	n_{max} [rpm]	R_A (20°C) [Ω]	L_A [mH]
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): $\leq 0.6\%$ (peak-peak) $\leq 0.2\%$ (rms)

Replacement switching diagram



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

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

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

Tachogenerators

Ex approval ATEX II 2 G Ex d e IIC T6 Gb

Solid shaft $\varnothing 11$ mm or $\varnothing 14$ mm with EURO flange B10

Ex GP 0,2, TG 74 d
