

Overview

- Low response time
- Open circuit voltage 10...60 mV per rpm
- Solid shaft $\varnothing 6$ mm with flange
- Very high resistance to shock
- High signal quality due to patented LongLife technology
- Robust design



HUBNER
BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Reversal tolerance	≤ 0.1 %
Linearity tolerance	≤ 0.15 %
Temperature coefficient	± 0.05 %/K (open-circuit)
Isolation class	B
Calibration tolerance	± 3 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	1.2 W (speed ≥ 3000 rpm)
Armature-circuit time-constant	< 25 μ s
Open-circuit voltage	10...60 mV per rpm
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE

Technical data - mechanical design

Size (flange)	$\varnothing 85$ mm
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Technical data - mechanical design

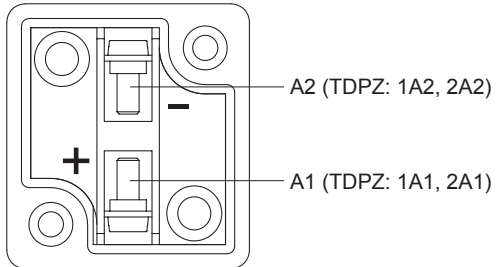
Shaft type	$\varnothing 6$ mm solid shaft
Protection EN 60529	IP 56
Operating speed	≤ 10000 rpm
Torque	1.5 Ncm
Rotor moment of inertia	0.25 kgcm ²
Admitted shaft load	≤ 40 N axial ≤ 60 N radial
Material	Housing: stainless steel / plastic Shaft: stainless steel
Operating temperature	-30...+130 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Weight approx.	1.1 kg
Connection	Terminal box

Terminal assignment

View A (see dimension)

Connecting terminal

Polarity for positive rotating direction



Ordering reference

Product	Tachogenerator	TDP	#####
Design	Tachogenerator	TDP	
Open-circuit voltage	10 mV per rpm		0,09LT-1
	20 mV per rpm		0,09LT-2
	40 mV per rpm		0,09LT-3
	30 mV per rpm		0,09LT-7
	50 mV per rpm		0,09LT-8
	60 mV per rpm		0,09LT-9

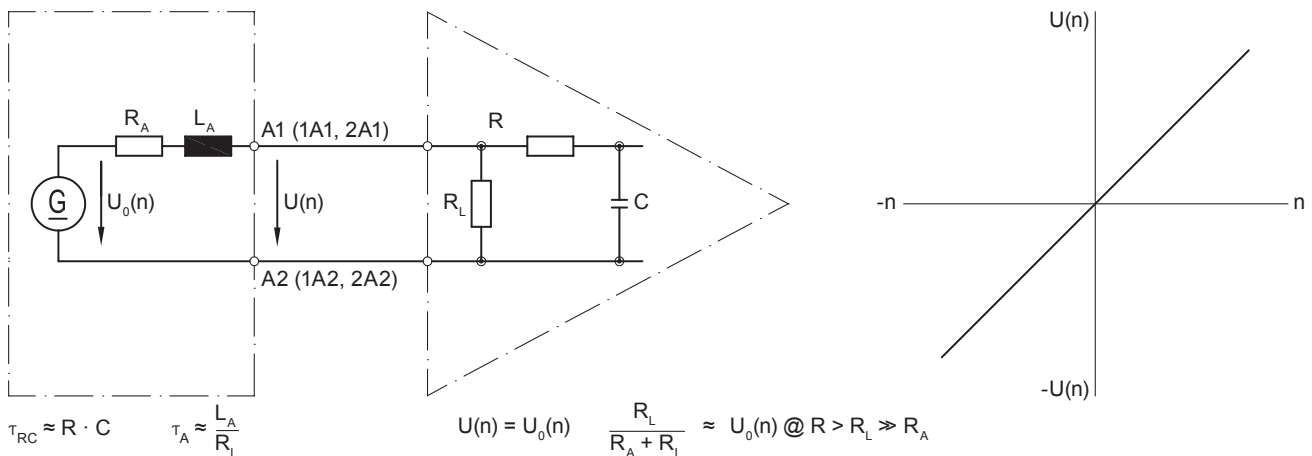
Data according to type

Type	Off-load voltage U_0 [mV/rpm]	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 [kΩ]	0-6000 R_L [kΩ]	0- n_{max} R_L [kΩ]			
TDP0,09LT-1	10	≥0.75	≥0.3	≥8.5	10000	20	18
TDP0,09LT-2	20	≥3	≥12	≥34	10000	82	75
TDP0,09LT-7	30	≥6.8	≥27	≥75	10000	190	167
TDP0,09LT-3	40	≥12	≥48	≥134	10000	320	300
TDP0,09LT-8	50	≥19	≥75	≥134	8000	492	465
TDP0,09LT-9	60	≥27	≥108	≥134	6700	750	675

Superimposed ripple (for $\tau_{RC} = 0.7$ ms): ≤0.55% (peak-peak) ≤0.25% (rms)

Equivalent circuit diagram

Tachogenerator



Polarity for positive rotating direction (see dimension) / A1 (1A1, 2A1): + (VDE) / A2 (1A2, 2A2): - (VDE)

Accessories

Mounting accessories

Spring disk coupling K35 (shaft ø6...12 mm)