

Tachogenerators

Shaft $\varnothing 6$ mm with flange

With own bearings

TDP 0,09



TDP 0,09

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

Features

- High response speed
- Open circuit voltage 10...60 mV per rpm
- Shaft $\varnothing 6$ mm with flange
- Top signal quality over the total rotational speed range by patented Longlife technique
- With own bearings
- Robust design
- Recognition of sense of rotation
- No auxiliary energy source required

Optional

- Two separate tacho voltages (TDPZ 0,09)
- Combined with centrifugal switch FSL

Technical data - mechanical design

Dimensions (flange)	$\varnothing 64$ mm
Shaft	$\varnothing 6$ mm
Protection DIN EN 60529	IP 56
Torque	1.5...0 Ncm
Rotor moment of inertia	0.25 kgcm ²
Shaft loading	≤ 40 N axial ≤ 60 N radial
Materials	Housing: stainless steel / plastic Shaft: stainless steel
Operating temperature	-30...+130 °C
Resistance	DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN EN 60068-2-27 Shock 300 g, 1 ms
Weight approx.	1.2 kg
Connection	Terminal box

Part number

TDP 0,09 LT -

Open-circuit voltage

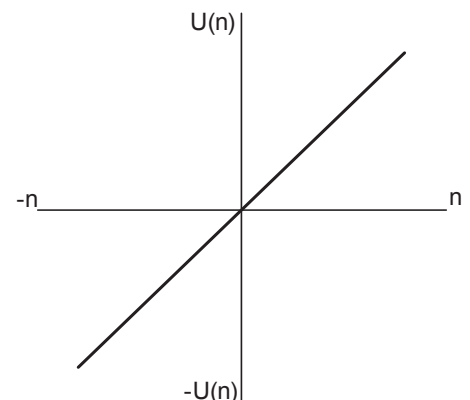
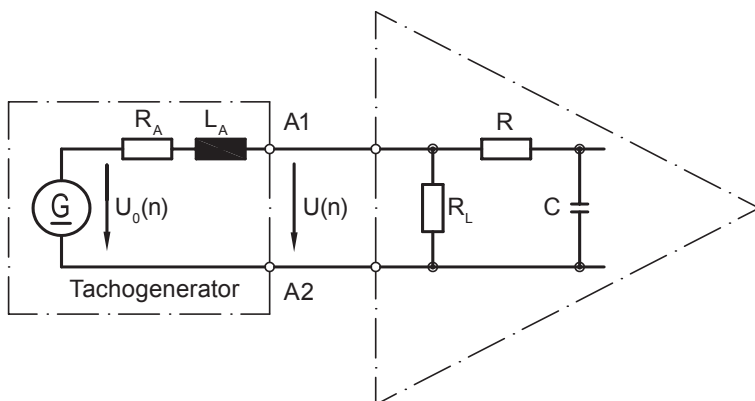
- 1 10 mV per rpm
- 2 20 mV per rpm
- 7 30 mV per rpm
- 3 40 mV per rpm
- 8 50 mV per rpm
- 9 60 mV per rpm

Data according to type

Type	Off-load voltage	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
		0 - 3,000	0 - 6,000	0 - n_{max}			
	U_0 [mV/rpm]	R_L [kΩ]	R_L [kΩ]	R_L [kΩ]	n_{max} [rpm]	$R_A(20^\circ\text{C})$ [Ω]	L_A [mH]
TDP 0,09 LT - 1	10	≥ 0.75	≥ 0.3	≥ 8.5	10,000	20	18
TDP 0,09 LT - 2	20	≥ 3	≥ 12	≥ 34	10,000	82	75
TDP 0,09 LT - 7	30	≥ 6.8	≥ 27	≥ 75	10,000	190	167
TDP 0,09 LT - 3	40	≥ 12	≥ 48	≥ 134	10,000	320	300
TDP 0,09 LT - 8	50	≥ 19	≥ 75	≥ 134	8,000	492	465
TDP 0,09 LT - 9	60	≥ 27	≥ 108	≥ 134	6,700	750	675

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

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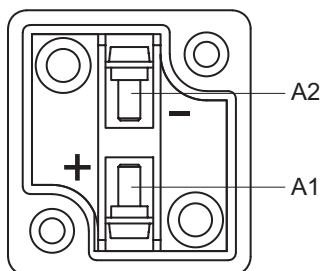
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Terminal assignment

View A - Connecting terminal

Polarity for positive rotating direction



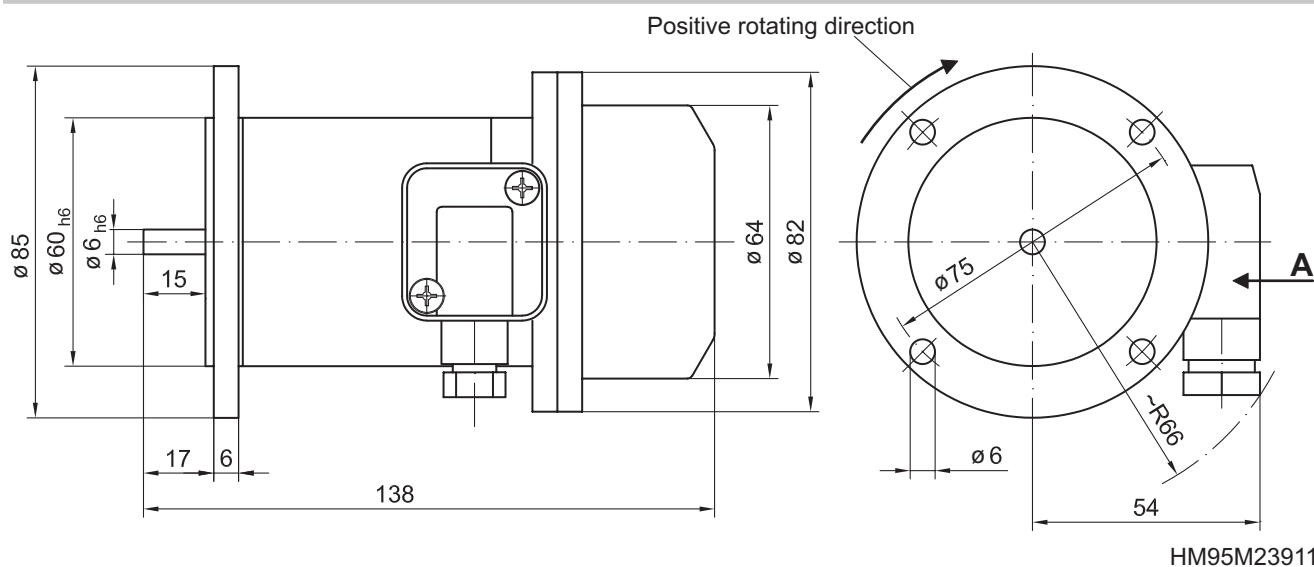
Accessories

Carbon brushes

Mounting accessories

K 35 Spring disk coupling for shaft $\varnothing 6 \dots 12$ mm

Dimensions



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