

Tachogenerators

Shaft \varnothing 7-14 mm with flange

With own bearings

TDP 0,2



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Technical data - electrical ratings

Reversal tolerance	$\leq 0.1 \%$
Linearity tolerance	$\leq 0.15 \%$
Temperature coefficient	$\pm 0.05 \%/K$ (idle)
Isolation class	B
Calibration tolerance	$\pm 1 \%$
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	12 W (speed > 3000 rpm)
Armature-circuit time-constant	$< 75 \mu s$
Open-circuit voltage	10...150 mV per rpm

Features

- High response speed
- Open circuit voltage 10...150 mV per rpm
- Shaft \varnothing 7-14 mm with flange
- Top signal quality over the total rotational speed range by patented Longlife technique
- Recognition of rotating direction
- No auxiliary energy source required

Optional

- Two separate tacho voltages (TDPZ 0,2)
- Second shaft end
- Combined with centrifugal switch FSL

Technical data - mechanical design

Housing	$\varnothing 90$ mm
Shaft	$\varnothing 7...14$ mm
Protection DIN EN 60529	IP 55, IP 56 (option)
Admitted shaft load	≤ 60 N axial ≤ 80 N radial
Materials	Housing: aluminium die-cast 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.	2.6 kg
Connection	Terminal box
Torque	1.5...0 Ncm
Rotor moment of inertia	1.1 kgcm ²

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Part number

TDP 0,2 LT -

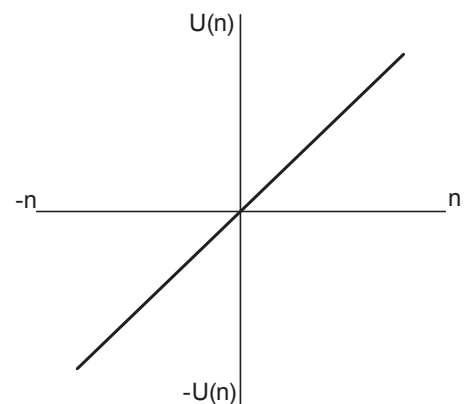
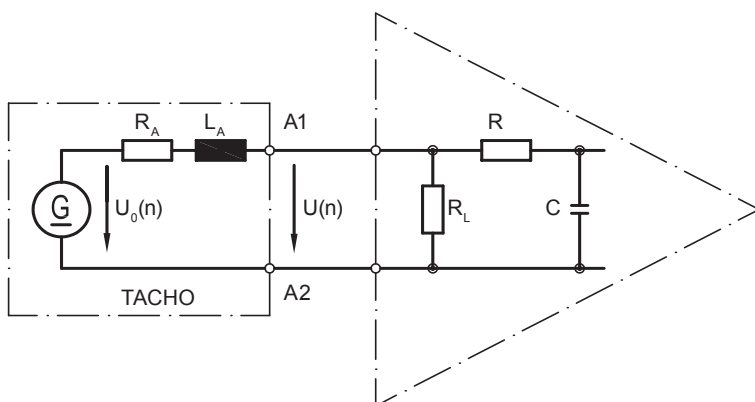
	Open-circuit voltage
6	10 mV per rpm
7	20 mV per rpm
10	30 mV per rpm
5	40 mV per rpm
4	60 mV per rpm
3	100 mV per rpm
1	150 mV per rpm

Data according to type

Type	Open-circuit 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 [k Ω]	R_L [k Ω]	R_L [k Ω]	n_{max} [rpm]	$R_A(20^\circ C)$ [Ω]	L_A [mH]
TDP 0,2 LT - 6	10	≥ 0.1	≥ 0.3	≥ 0.9	10,000	3	6
TDP 0,2 LT - 7	20	≥ 0.3	≥ 1.2	≥ 3.3	10,000	11	23
TDP 0,2 LT - 10	30	≥ 0.7	≥ 2.7	≥ 7.5	10,000	26	50
TDP 0,2 LT - 5	40	≥ 1.2	≥ 5	≥ 13.5	10,000	47	90
TDP 0,2 LT - 4	60	≥ 2.7	≥ 11	≥ 30	10,000	99	200
TDP 0,2 LT - 3	100	≥ 7.5	≥ 30	≥ 30	6,000	271	550
TDP 0,2 LT - 1	150	≥ 16	---	≥ 30	4,000	630	1,260

Superimposed ripple (for $\tau_{RC} = 0.7$ ms): ≤ 0.5 % (peak-peak) ≤ 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 direction of rotation: A1: + A2: - (VDE)

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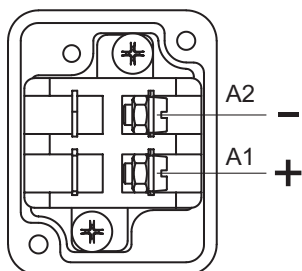
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Terminal assignment

View A - Connecting terminal

Polarity for positive direction of rotation



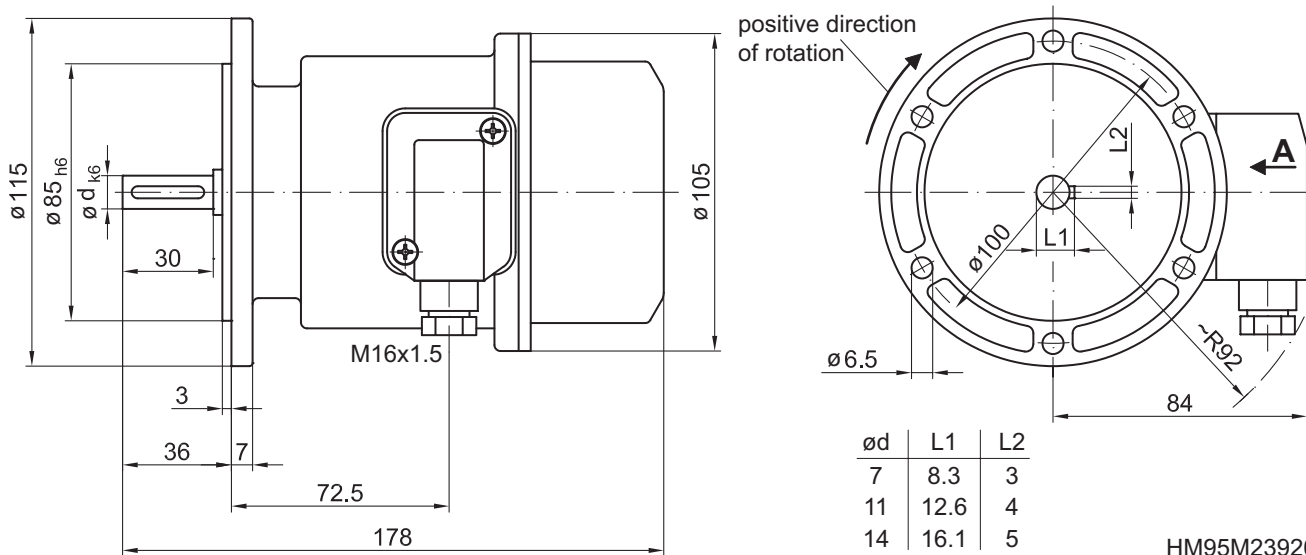
Accessories

Carbon brushes

Mounting accessories

K 35	Spring disk coupling for shaft $\varnothing 6...12$ mm
K 50	Spring disk coupling for shaft $\varnothing 11...16$ mm
K 60	Spring disk coupling for shaft $\varnothing 11...22$ mm

Dimensions



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