

**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



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A Baumer Brand

**Technical data**

**Technical data - electrical ratings**

Reversal tolerance	$\leq 0.1$ %
Linearity tolerance	$\leq 0.15$ %
Temperature coefficient	$\pm 0.05$ %/K (open-circuit)
Isolation class	B
Calibration tolerance	$\pm 3$ %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	1.2 W (speed $\geq 3000$ rpm)
Armature-circuit time-constant	$< 25$ $\mu$ 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**

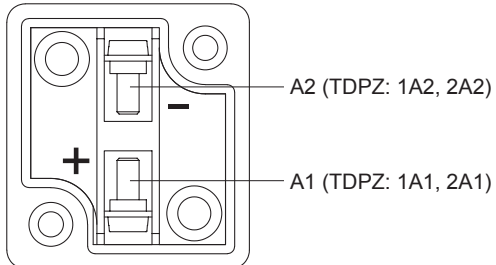
Shaft type	$\varnothing 6$ mm solid shaft
Protection EN 60529	IP 56
Operating speed	$\leq 10000$ rpm
Torque	1.5 Ncm
Rotor moment of inertia	0.25 kgcm <sup>2</sup>
Admitted shaft load	$\leq 40$ N axial $\leq 60$ N radial
Material	Housing: stainless steel / plastic Shaft: stainless steel
Operating temperature	-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

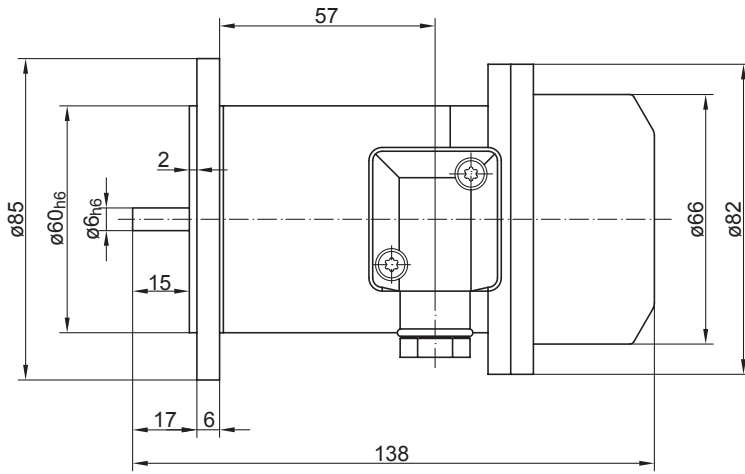
**View A** (see dimension)

Connecting terminal

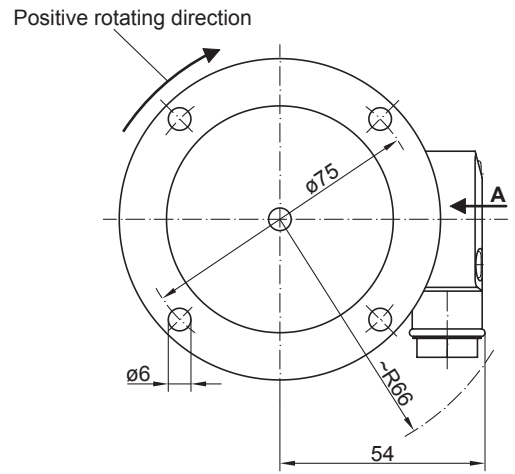
Polarity for positive rotating direction



**Dimensions**



Standard version



**Ordering reference**

		<b>TDP</b>	<b>#####</b>
<b>Product</b>		TDP	
Tachogenerator			
<b>Design</b>			
Tachogenerator			
<b>Open-circuit voltage</b>			
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

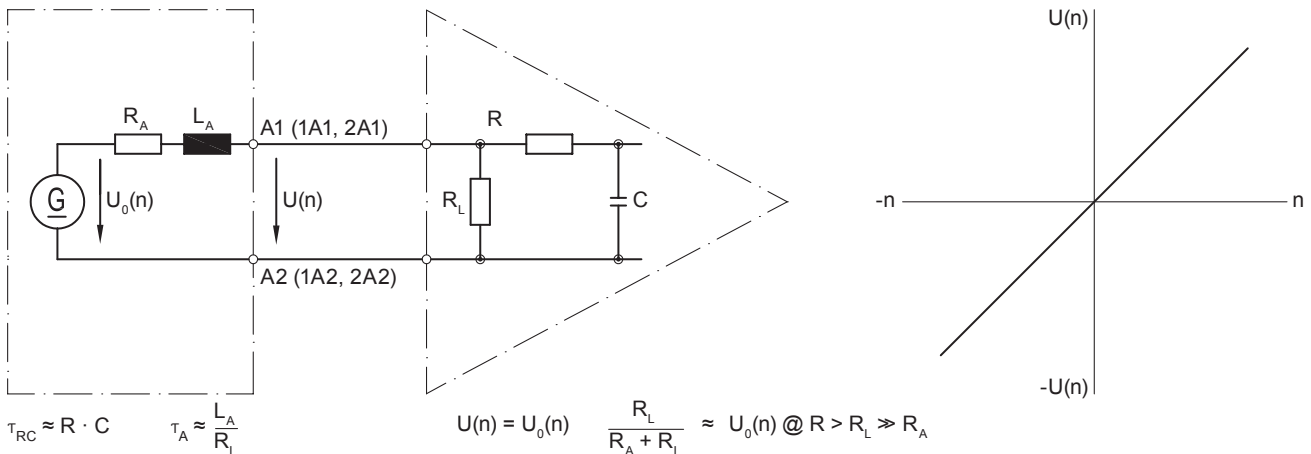
**Data according to type**

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)

**Replacement switching diagram**

Tachogenerator



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

**Accessories**

**Mounting accessories**

Spring disk coupling K 35 (shaft ø6...12 mm)