Baumer
Passion for Sensors

Tachogenerators

APY 50

LongLife DC tachgenerator with PY flange and 5/16" solid shaft with flat, terminal box with 1/2" -14 NPT cable entry

Article number: 11071028

Overview

- For replacement of "PY" style tachogenerators
- Low response time
- Open circuit voltage 50 V per 1000 rpm
- Calibration tolerance ±1 %
- Very high resistance to shock
- High signal quality due to patented LongLife technology
- Recognition of sense of rotation possible via control
- CSA / C / US approved

LongLife®

HÜBNER 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	±1 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Armature-circuit time-constant	<75 µs
Open-circuit voltage	50 V per 1000 rpm
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE CSA C/US
Technical data - mechanical design	
Size (flange)	ø4.5"
Shaft type	ø5/16", solid shaft with flat

Technical data - mechanical design	
Flange	PY flange
Protection EN 60529	IP 55
Operating speed	≤10000 rpm
Torque	1.5 Ncm
Rotor moment of inertia	1.1 kgcm²
Admitted shaft load	≤60 N axial ≤80 N radial
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-22...+266 °F
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Weight approx.	2.4 kg
Connection	Terminal box with 1/2" -14 NPT cable entry

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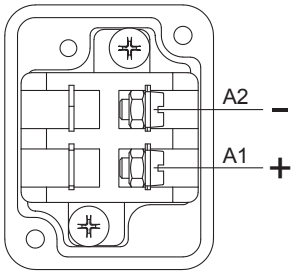
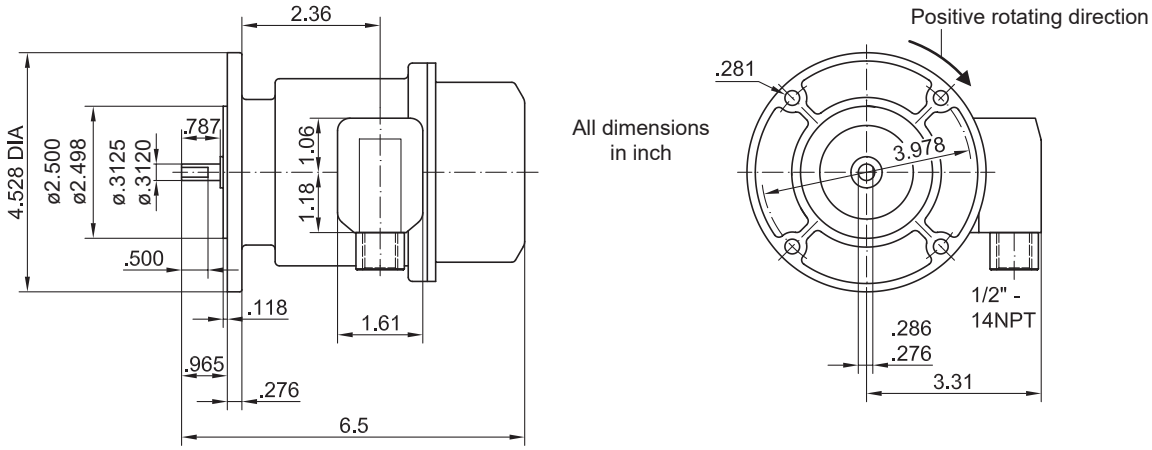
Terminal assignment

Polarity for positive rotating direction



Dimensions



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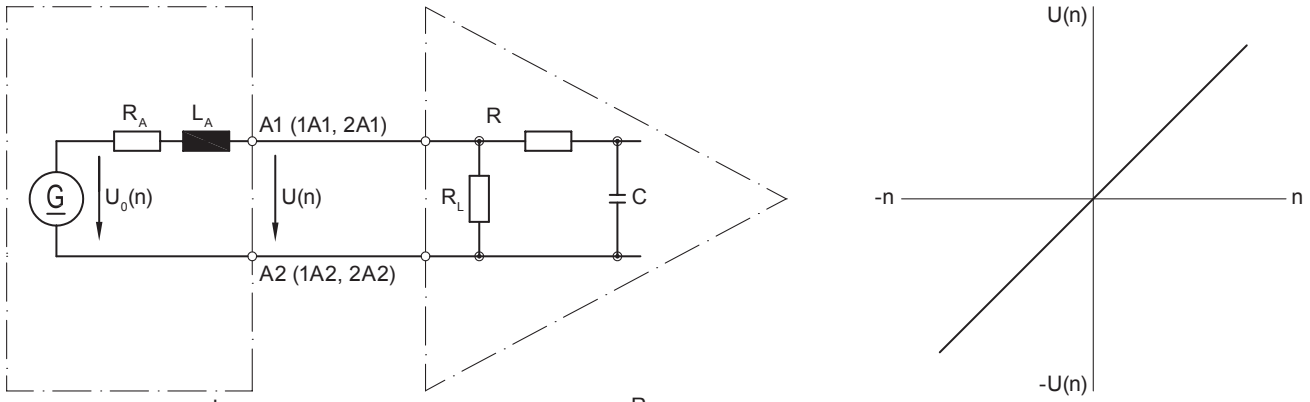
Data according to type

Type	Off-load voltage	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
		0-3000	0-6000	0-n_{max}			
	U_0 [mV/rpm]	R_L [kΩ]	R_L [kΩ]	R_L [kΩ]	n_{max} [rpm]	R_A (68°F) [Ω]	L_A [mH]
APY **50**	50	≥1.9	≥7.8	≥21.5	10000	66	137

Superimposed ripple (for τ_{RC} = 0.7 ms): ≤0.5% (peak-peak) ≤0.2% (rms)

Equivalent circuit diagram



$\tau_{RC} \approx R \cdot C$ $\tau_A \approx \frac{L_A}{R_L}$ $U(n) = U_0(n) \frac{R_L}{R_A + R_L} \approx U_0(n)$ @ $R > R_L \gg R_A$

Accessories

Mounting accessories

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