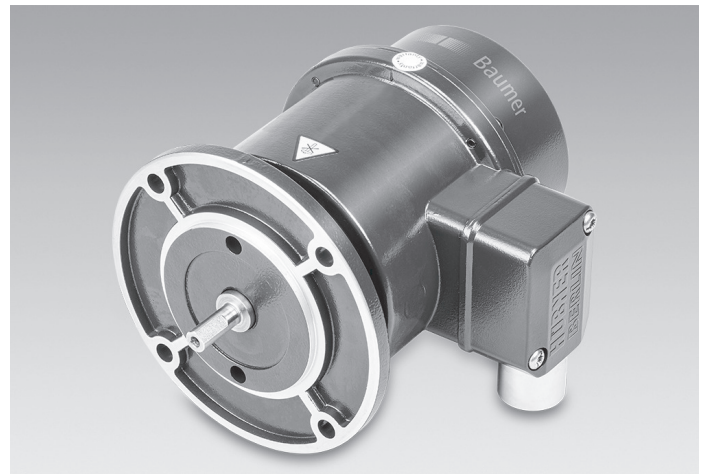


**Overview**

- For direct replacement of "PY" or "BC" style tachogenerators
- Low response time
- Open circuit voltage 20...100 mV per rpm
- 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
- Optional: Second shaft end (B14)



**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
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE, CSA C/US

**Technical data - mechanical design**

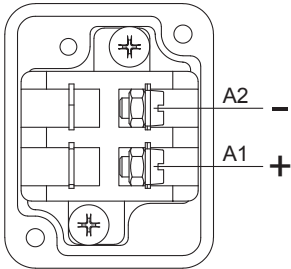
Size (flange)	4.528" DIA
Shaft type	.312" DIA / .318" DIA solid shaft

**Technical data - mechanical design**

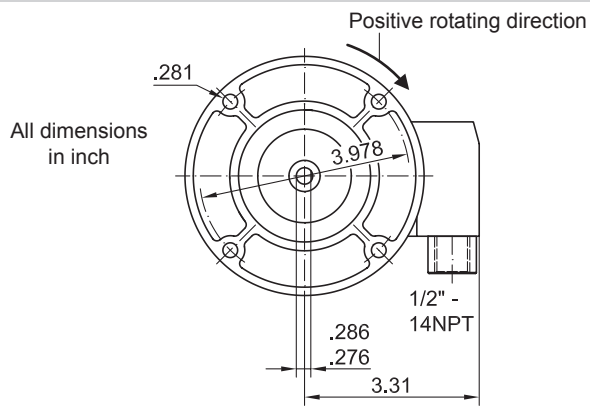
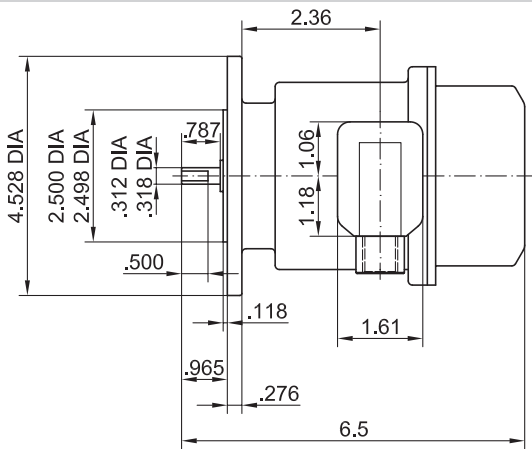
Flange	Mounting flange
Protection DIN EN 60529	IP 55
Operating speed	≤10000 rpm
Torque	1,5 Ncm
Rotor moment of inertia	1,1 kgcm <sup>2</sup>
Admitted shaft load	≤60 N axial ≤80 N radial
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-22...+266 °F
Resistance	IEC 60068-2-6 Vibration 10 g, 10...2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms
Weight approx.	2,4 kg
Connection	Terminal box

**Terminal assignment**

Polarity for positive rotating direction



**Dimensions**



**Ordering reference**

**Order key**

#####

**Design**

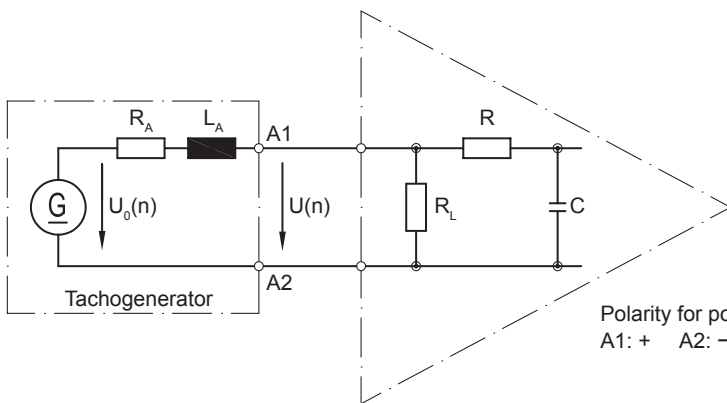
APY 20 - Open-circuit voltage 20 mV per rpm	11094254
APY 50 - Open-circuit voltage 50 mV per rpm	11071028
APY 100 - Open-circuit voltage 100 mV per rpm	11070714

**Data according to type**

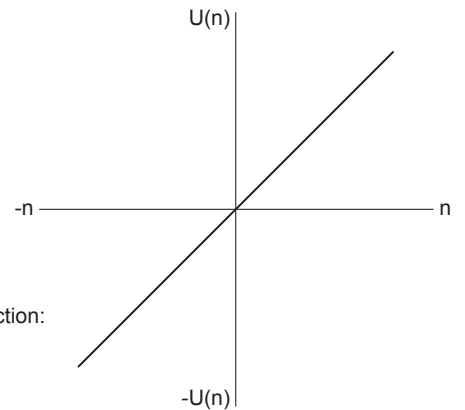
Type	Off-load voltage $U_0$ [mV/rpm]	Minimum load required depending on speed range [rpm]			Maximum operating speed $n_{max}$ [rpm]	Armature resistance $R_A$ (68°F) [Ω]	Armature inductance $L_A$ [mH]
		0-3000 $R_L$ [kΩ]	0-6000 $R_L$ [kΩ]	0- $n_{max}$ $R_L$ [kΩ]			
APY 20	20	≥0.3	≥1.2	≥3.3	10000	11	23
APY 50	50	≥1.9	≥7.8	≥21.5	10000	66	137
APY 100	100	≥7.5	≥30	≥30	6000	271	546

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

**Replacement switching diagram**



Polarity for positive rotating direction:  
A1: +    A2: - (VDE)



$\tau_{RC} \approx R \cdot C$

$\tau_A \approx \frac{L_A}{R_L}$

$U(n) = U_0(n) \cdot \frac{R_L}{R_A + R_L} \approx U_0(n)$  for  $R > R_L \gg R_A$

**Accessories**

**Mounting accessories**

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