

GT 7

Blind hollow shaft $\varnothing 12 \dots 16$ mm

Housing $\varnothing 85$ mm, bearingless configuration

Overview

- Temperature compensation of tacho voltage as standard
- Open circuit voltage 10...60 mV per rpm
- Blind hollow shaft $\varnothing 12 \dots 16$ mm
- High signal quality due to patented LongLife technology
- Low moment of inertia
- No auxiliary energy source required



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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	± 5 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	GT 7.08: 0.3 W (speed ≥ 5000 rpm) GT 7.16: 0.6 W (speed ≥ 5000 rpm)
Armature-circuit time-constant	< 4 μ 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
Shaft type	$\varnothing 12 \dots 16$ mm (blind hollow shaft)
Protection EN 60529	IP 55
Torque	1.5 Ncm
Rotor moment of inertia	0.4 kgcm ² (GT 7.08) 0.55 kgcm ² (GT 7.16)
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 100 g, 6 ms
Weight approx.	110 g (GT 7.08) 180 g (GT 7.16)
Connection	Screw terminal connector Cable 0.6 m

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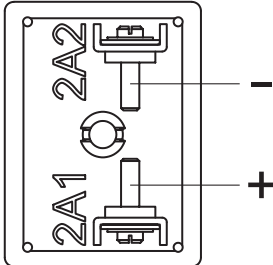
Housing $\varnothing 85$ mm, bearingless configuration

Terminal assignment

View A (see dimension)

Connecting terminal

Polarity for positive rotating direction

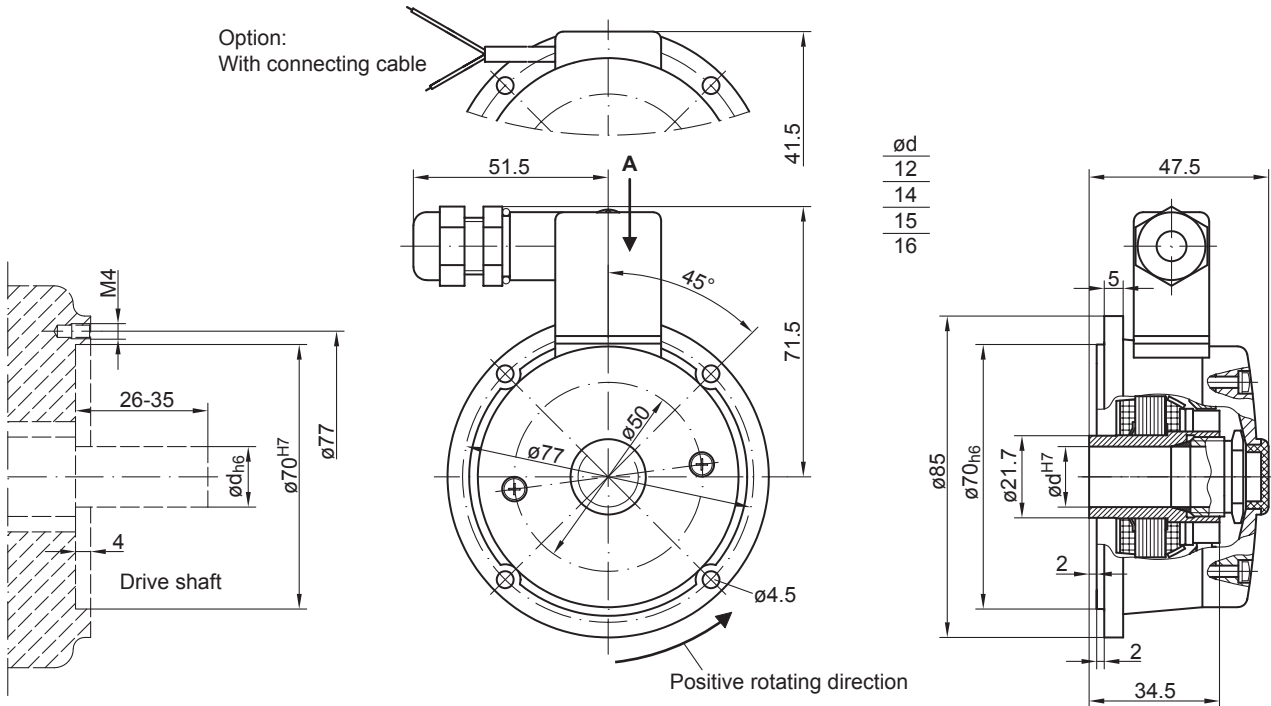


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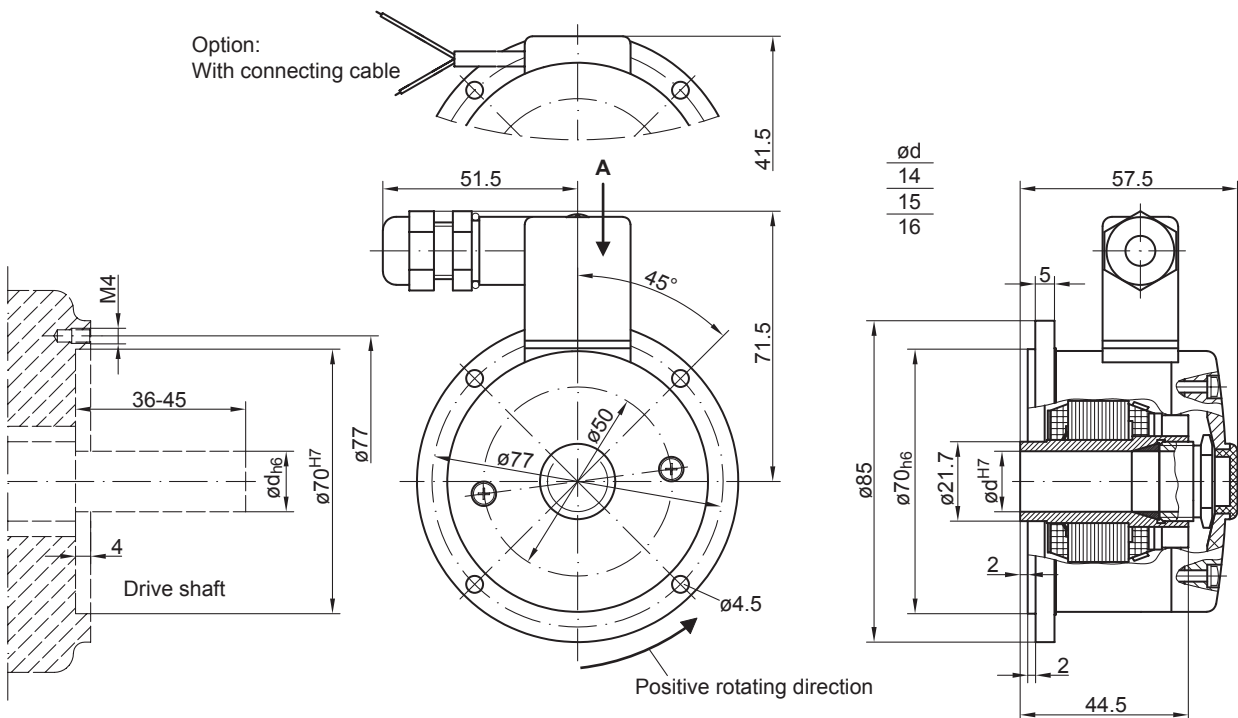
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Dimensions



GT 7.08 - Open-circuit voltage 10...30 mV per rpm



GT 7.16 - Open-circuit voltage 40...60 mV per rpm

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Ordering reference

GT7 #####

Product

Tachogenerator

GT7

Open-circuit voltage

10 mV per rpm	.08L/410
20 mV per rpm	.08L/420
30 mV per rpm	.08L/430
40 mV per rpm	.16L/440
60 mV per rpm	.16L/460

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 [k Ω]	0-6000 R_L [k Ω]	0- n_{max} R_L [k Ω]			
GT7.08L/410	10	≥ 5	≥ 12	≥ 27	9000	60	20
GT7.08L/420	20	≥ 20	≥ 48	≥ 108	9000	230	80
GT7.08L/430	30	≥ 45	≥ 108	≥ 243	9000	550	180
GT7.16L/440	40	≥ 40	≥ 96	≥ 216	9000	410	160
GT7.16L/460	60	≥ 90	≥ 215	≥ 223	6100	760	360

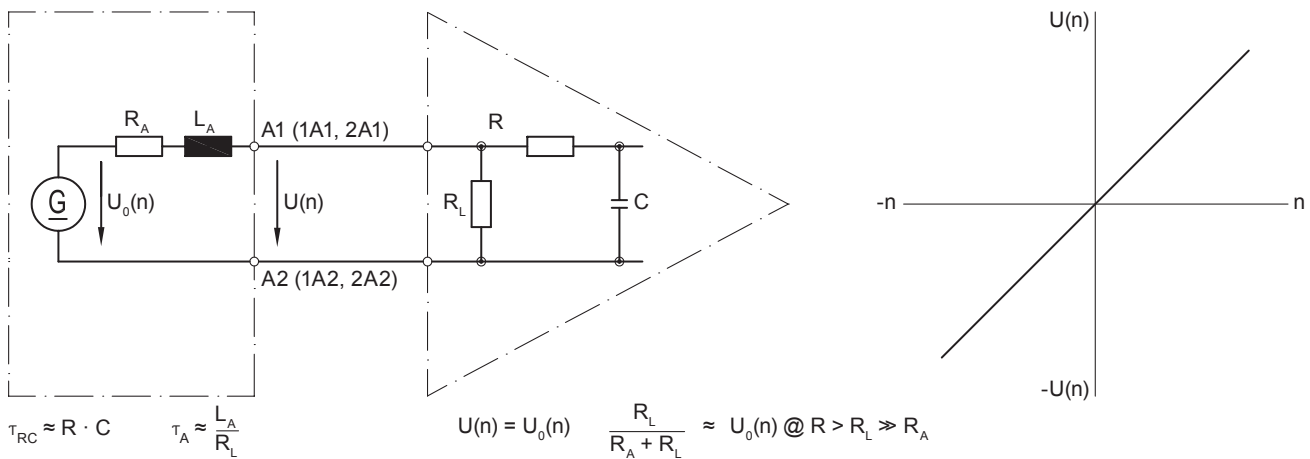
Superimposed ripple (for $\tau_{RC} = 0.3$ ms):

$\leq 0.6\%$ (peak-peak)

$\leq 0.25\%$ (rms)

Equivalent circuit diagram

Tachogenerator



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

Accessories

Mounting accessories

Mounting cone (on request)

Spare parts

11248745 Maintenance kit for GT7 / GTF7