

GTB 9

Blind hollow shaft $\varnothing 12 \dots 16$ mm or cone shaft $\varnothing 17$ mm (1:10)

Housing $\varnothing 95$ mm, bearingless configuration

Overview

- Low response time
- Open circuit voltage 10...60 mV per rpm
- Blind hollow shaft $\varnothing 12 \dots 16$ mm or cone shaft $\varnothing 17$ mm (1:10)
- High signal quality due to patented LongLife technology
- High protection IP 68
- Connector output
- No auxiliary energy source required



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	$\pm 5 \%$
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	0.3 W (speed ≥ 5000 rpm)
Armature-circuit time-constant	$< 9 \mu s$
Open-circuit voltage	GTB 9.06: 10...20 mV per rpm GTB 9.16: 60 mV per rpm
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE

Technical data - mechanical design

Size (flange)	$\varnothing 95$ mm
Shaft type	$\varnothing 12 \dots 16$ mm (blind hollow shaft) $\varnothing 17$ mm (cone shaft 1:10)
Protection DIN EN 60529	IP 68
Torque	0,35 Ncm
Rotor moment of inertia	0,95 kgcm ²
Material	Housing: stainless steel / plastic Shaft: stainless steel
Operating temperature	$-30 \dots +130$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10...2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Weight approx.	0,7 kg
Connection	Connector

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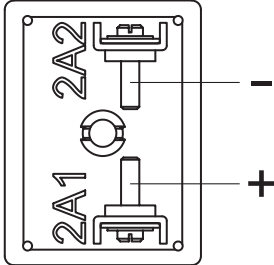
Housing $\varnothing 95$ mm, bearingless configuration

Terminal assignment

View A (see dimension)

Connecting terminal

Polarity for positive rotating direction

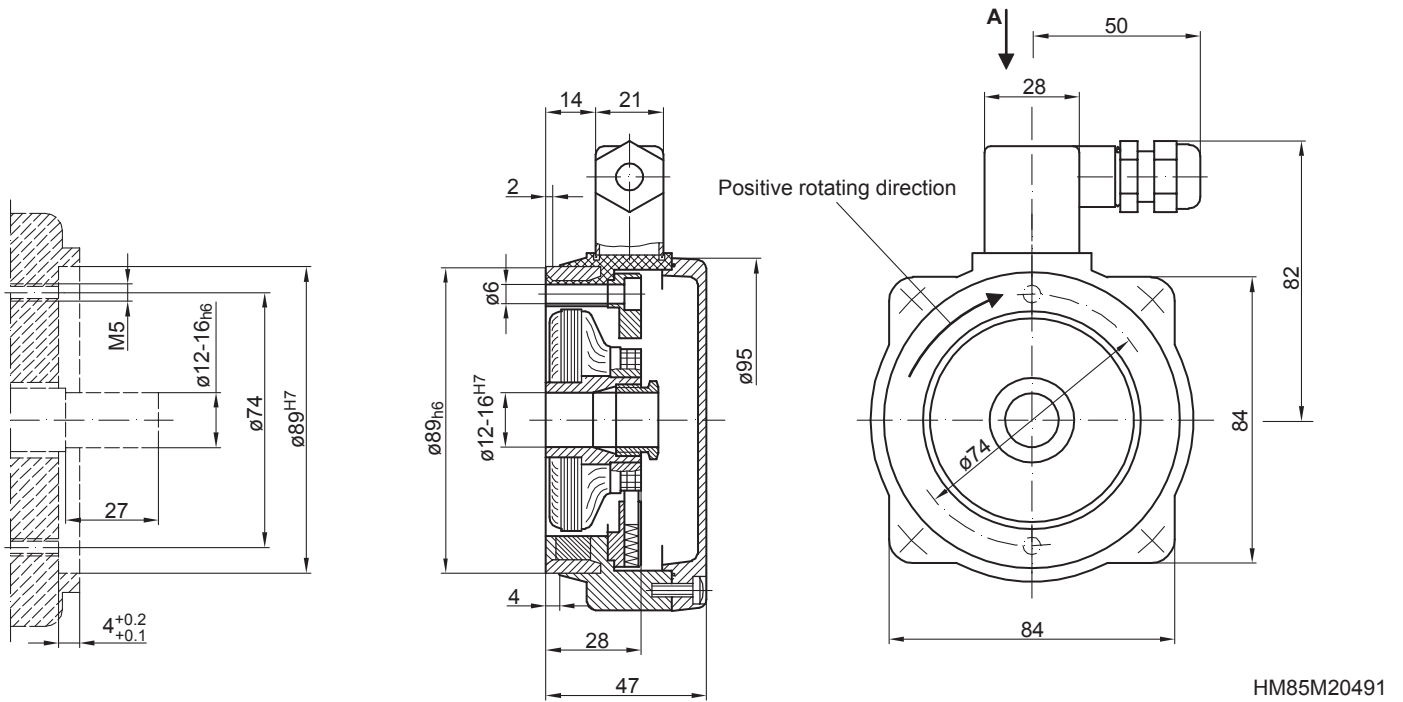


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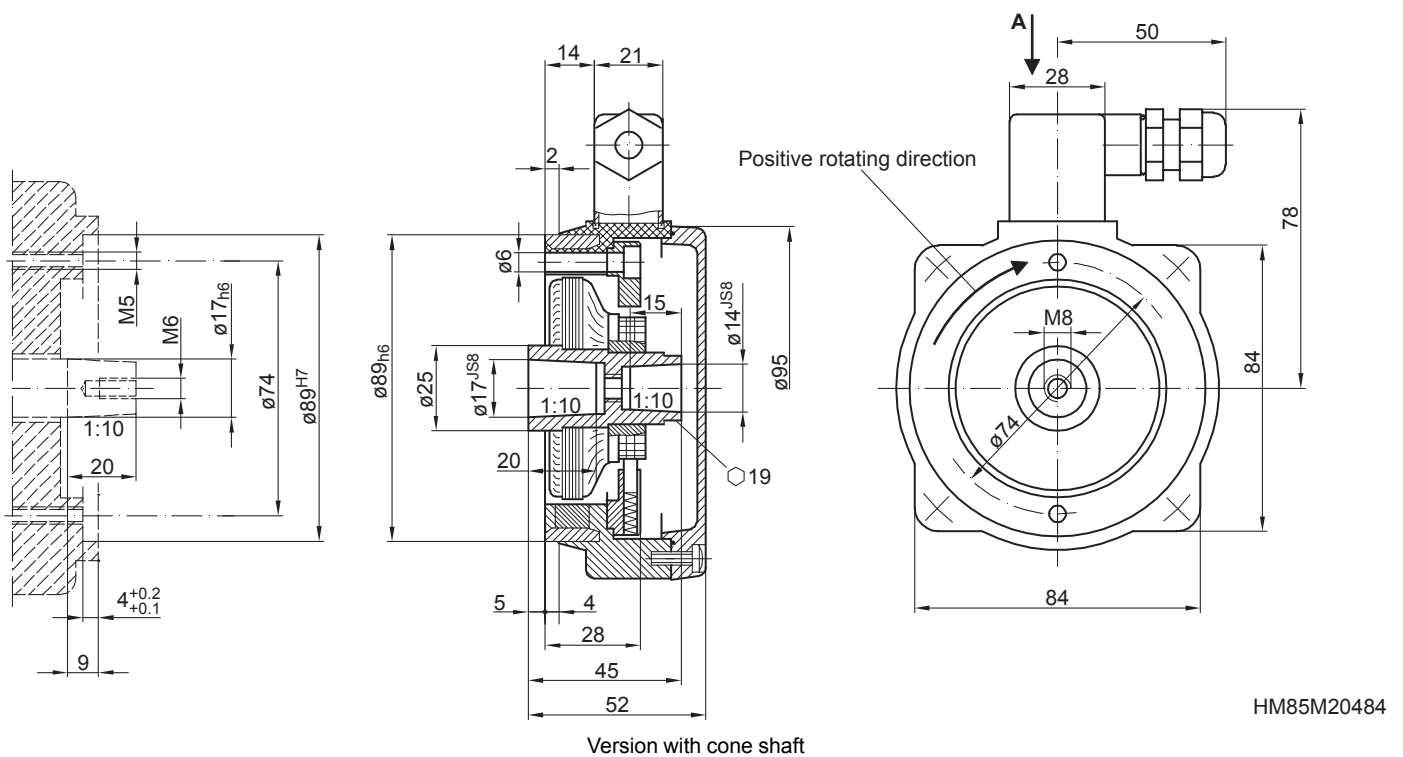
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Dimensions



Version with through hollow shaft



Version with cone shaft

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Ordering reference

Product	GTB9	#####	#
Tachogenerator	GTB9		
Open-circuit voltage			
10 mV per rpm		.06L/410	
20 mV per rpm		.06L/420	
60 mV per rpm		.16L/460	
Design			
Cylindrical shaft			-
Cone shaft			K

Data according to type

Type	Off-load voltage	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
	U_0 [mV/rpm]	0-3000 R_L [k Ω]	0-6000 R_L [k Ω]	0- n_{max} R_L [k Ω]	n_{max} [rpm]	R_A (20°C) [Ω]	L_A [mH]
GTB9.06L/410	10	≥ 5	≥ 12	≥ 27	9000	105	40
GTB9.06L/420	20	≥ 20	≥ 48	≥ 108	9000	370	169
GTB9.16L/460	60	≥ 60	≥ 144	—	6000	340	275

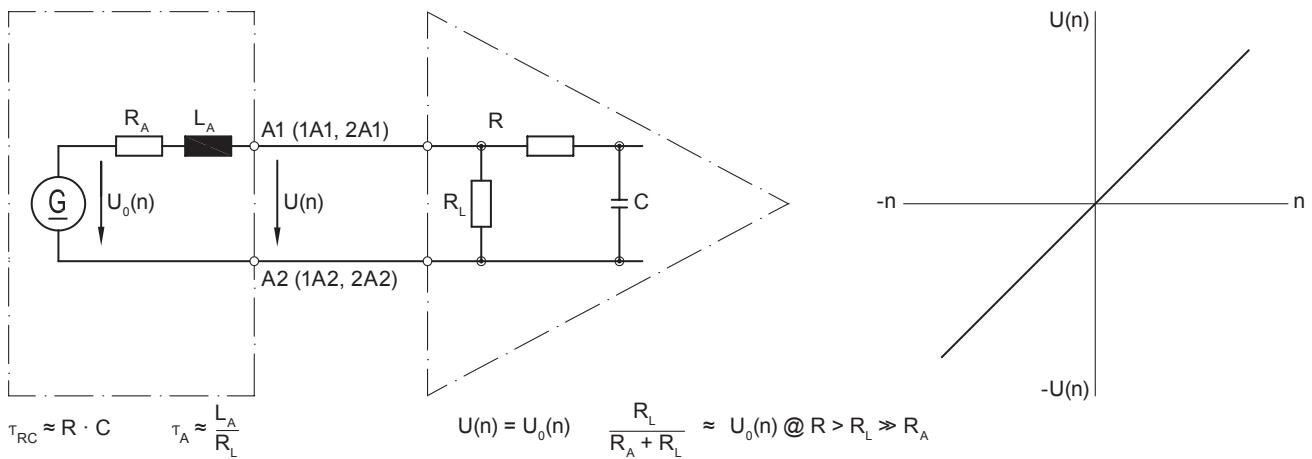
Superimposed ripple (for $\tau_{RC} = 0.3$ ms):

$\leq 0.5\%$ (peak-peak)

$\leq 0.25\%$ (rms)

Replacement switching diagram

Tachogenerator



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

Accessories

Mounting accessories

Mounting cone (on request)

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Spare parts

Carbon brushes (on request)