

## 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	$\leq 0.1$ %
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	GT 7.08: 0.3 W (speed $\geq 5000$ rpm) GT 7.16: 0.6 W (speed $\geq 5000$ rpm)
Armature-circuit time-constant	$< 4$ $\mu$ 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
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 <sup>2</sup> (GT 7.08) 0.55 kgcm <sup>2</sup> (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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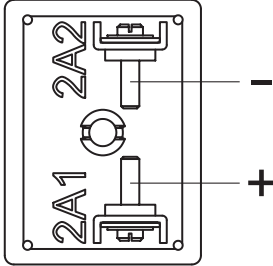
Housing  $\varnothing 85$  mm, bearingless configuration

### Terminal assignment

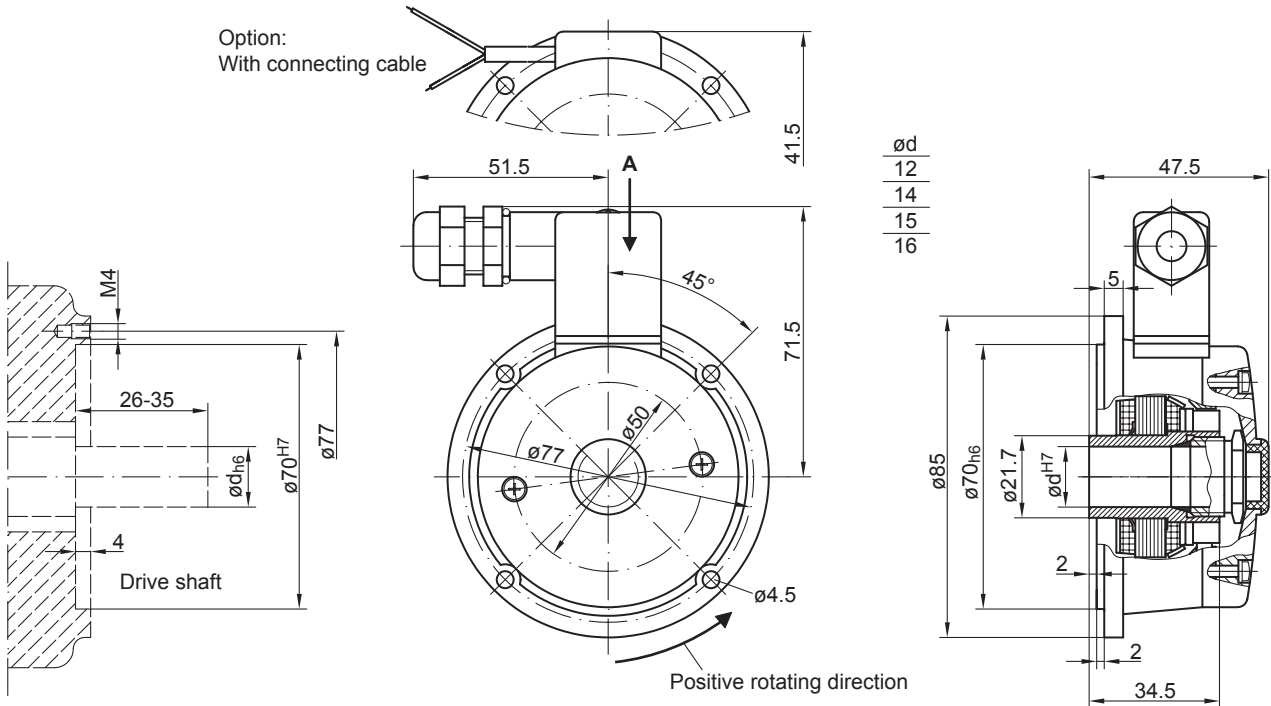
**View A** (see dimension)

Connecting terminal

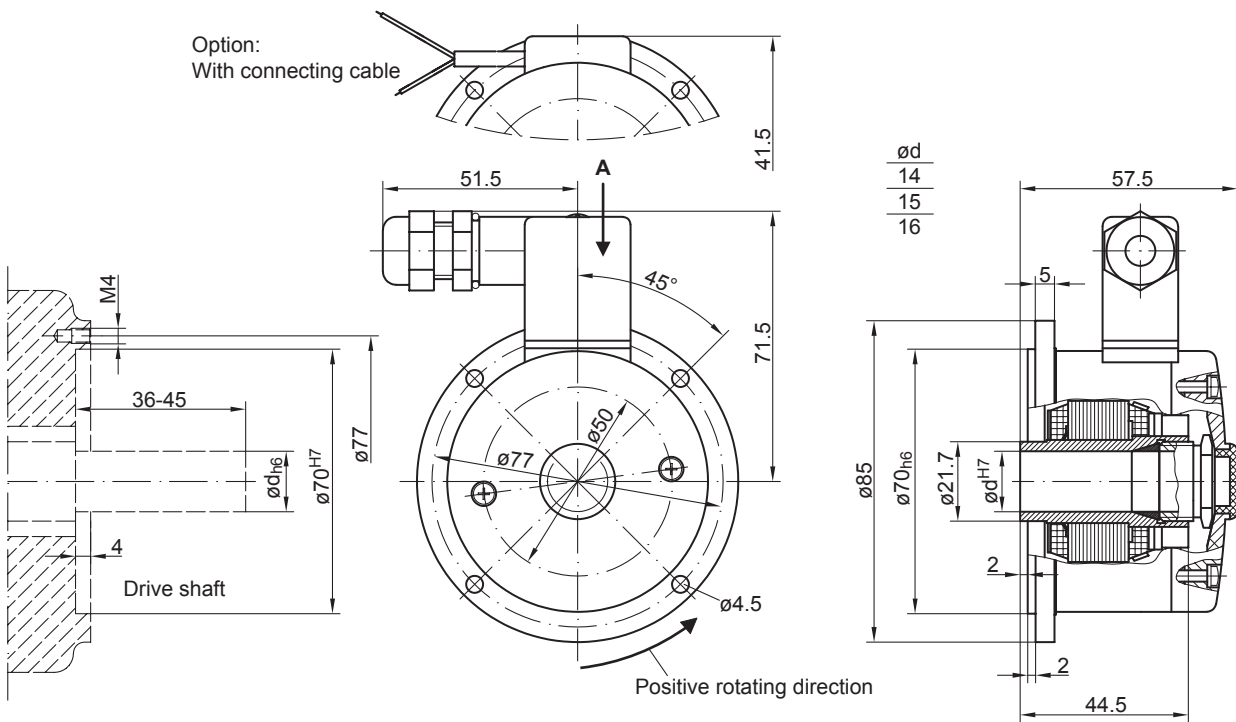
Polarity for positive rotating direction



## Dimensions



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



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

## 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	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
	$U_0$ [mV/rpm]	0-3000 $R_L$ [k $\Omega$ ]	0-6000 $R_L$ [k $\Omega$ ]	0- $n_{max}$ $R_L$ [k $\Omega$ ]	$n_{max}$ [rpm]	$R_A$ (20°C) [ $\Omega$ ]	$L_A$ [mH]
GT7.08L/410	10	$\geq 5$	$\geq 12$	$\geq 27$	9000	60	20
GT7.08L/420	20	$\geq 20$	$\geq 48$	$\geq 108$	9000	230	80
GT7.08L/430	30	$\geq 45$	$\geq 108$	$\geq 243$	9000	550	180
GT7.16L/440	40	$\geq 40$	$\geq 96$	$\geq 216$	9000	410	160
GT7.16L/460	60	$\geq 90$	$\geq 215$	$\geq 223$	6100	760	360

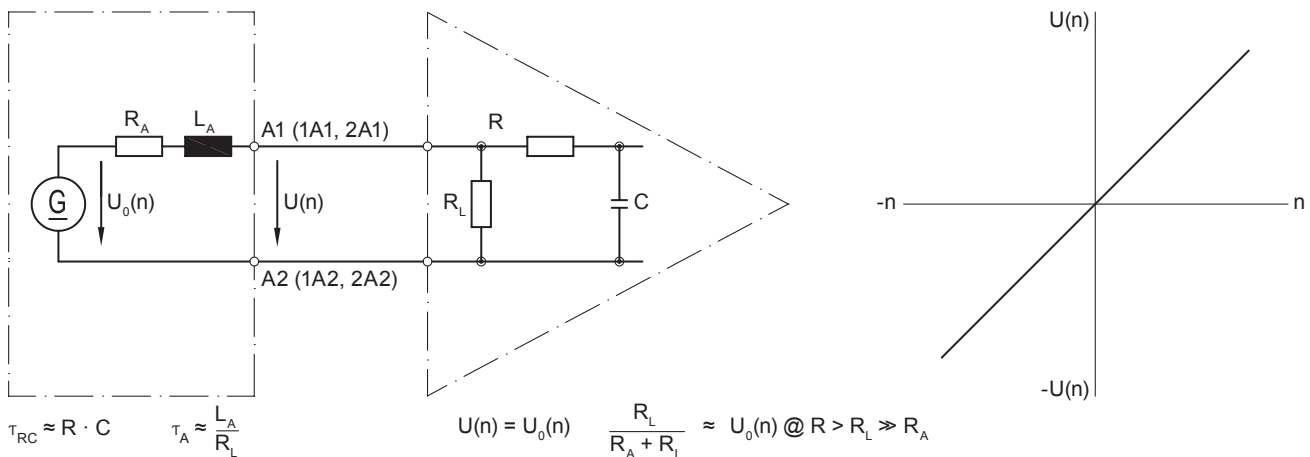
Superimposed ripple (for  $\tau_{RC} = 0.3$  ms):

$\leq 0.6\%$  (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