

TG 74 d

Ex approval ATEX II 2 G Ex db eb IIC T6 Gb

Solid shaft $\varnothing 14$ mm with EURO flange B10

Overview

- Tachogenerator / ATEX
- Ex-approved by ATEX II 2 G Ex db eb IIC T6 Gb
- Low response time
- Solid shaft $\varnothing 14$ mm
- EURO flange B10
- High signal quality due to patented LongLife technology
- Recognition of sense of rotation



Technical data

Technical data - electrical ratings

Reversal tolerance	≤ 0.1 %
Linearity tolerance	≤ 0.15 %
Temperature coefficient	± 0.06 %/K (open-circuit)
Isolation class	B
Calibration tolerance	± 5 %
Climatic test	Humid heat, constant (IEC 60068-2-3, Ca)
Performance	12 W (speed ≥ 5000 rpm)
Armature-circuit time-constant	< 150 μ s
Voltage	20... 150 mV per rpm
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE ATEX

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 14$ mm solid shaft

Technical data - mechanical design

Flange	EURO flange B10
Protection EN 60529	IP 54 (T6)
Torque	1.5 Ncm
Rotor moment of inertia	1.15 kgcm ²
Admitted shaft load	≤ 60 N axial ≤ 80 N radial
Material	Aluminium die cast alloy Shaft: stainless steel
Ambient temperature	-20... +55 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 2 G Ex db eb IIC T6 Gb (gas)
Weight approx.	3.8 kg
Connection	Screw terminal connector

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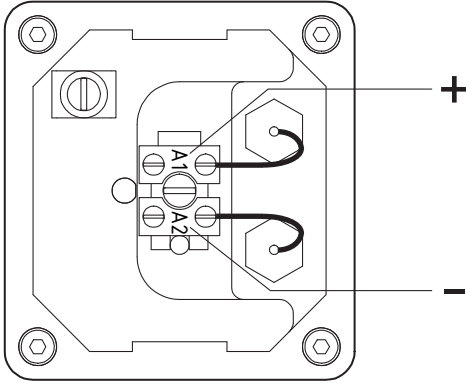
Solid shaft $\varnothing 14$ mm with EURO flange B10

Terminal assignment

View A (see dimension)

Connecting terminal

Polarity for positive rotating direction

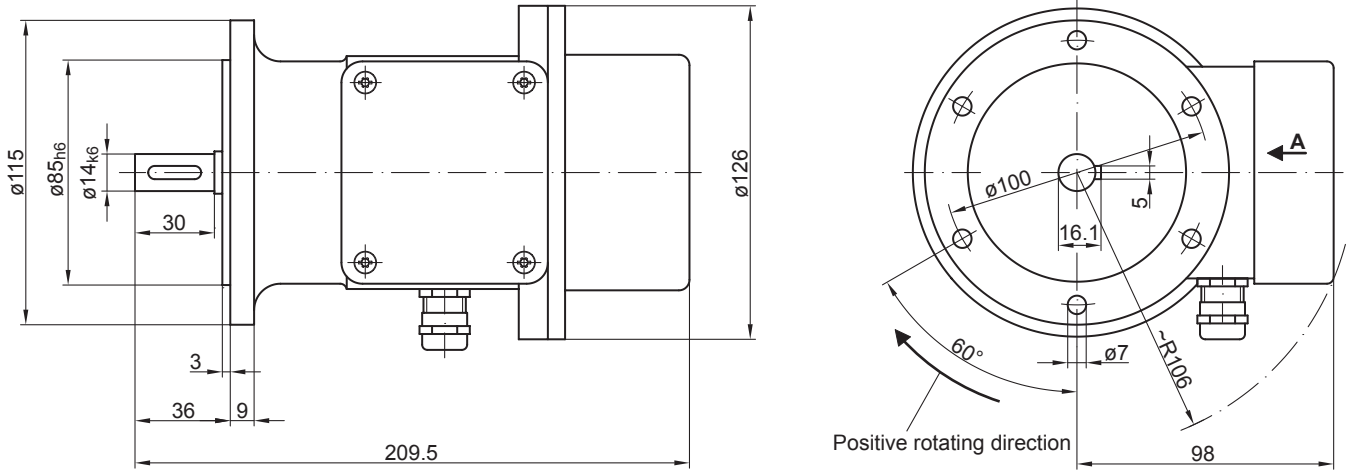


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Dimensions



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Solid shaft ø14 mm with EURO flange B10

Ordering reference

Product

Tachogenerator

TG74- ##

TG74-

Voltage

20 mV per rpm	2d
40 mV per rpm	4d
60 mV per rpm	6d
100 mV per rpm	10d
150 mV per rpm	15d

Data according to type

Type	Voltage (DC)	At current	Minimum load required depending on speed range [rpm]			Maximum operating speed	Armature resistance	Armature inductance
	U [mV/rpm]		I [mA]	0-3000	0-6000			
TG74-2d	20	200	R _L ≥ 0.3 [kΩ]	R _L ≥ 1.2 [kΩ]	R _L ≥ 2.2 [kΩ]	n _{max} 8000 [rpm]	R _A (20°C) 9.2 [Ω]	L _A 45 [mH]
TG74-4d	40	100	R _L ≥ 1.2 [kΩ]	R _L ≥ 4.8 [kΩ]	R _L ≥ 8.6 [kΩ]	n _{max} 8000 [rpm]	R _A (20°C) 38 [Ω]	L _A 170 [mH]
TG74-6d	60	66	R _L ≥ 2.7 [kΩ]	R _L ≥ 11 [kΩ]	R _L ≥ 15 [kΩ]	n _{max} 7000 [rpm]	R _A (20°C) 86 [Ω]	L _A 390 [mH]
TG74-10d	100	40	R _L ≥ 7.5 [kΩ]	–	R _L ≥ 15 [kΩ]	n _{max} 4200 [rpm]	R _A (20°C) 235 [Ω]	L _A 1080 [mH]
TG74-15d	150	27	–	–	R _L ≥ 16 [kΩ]	n _{max} 2800 [rpm]	R _A (20°C) 575 [Ω]	L _A 2420 [mH]

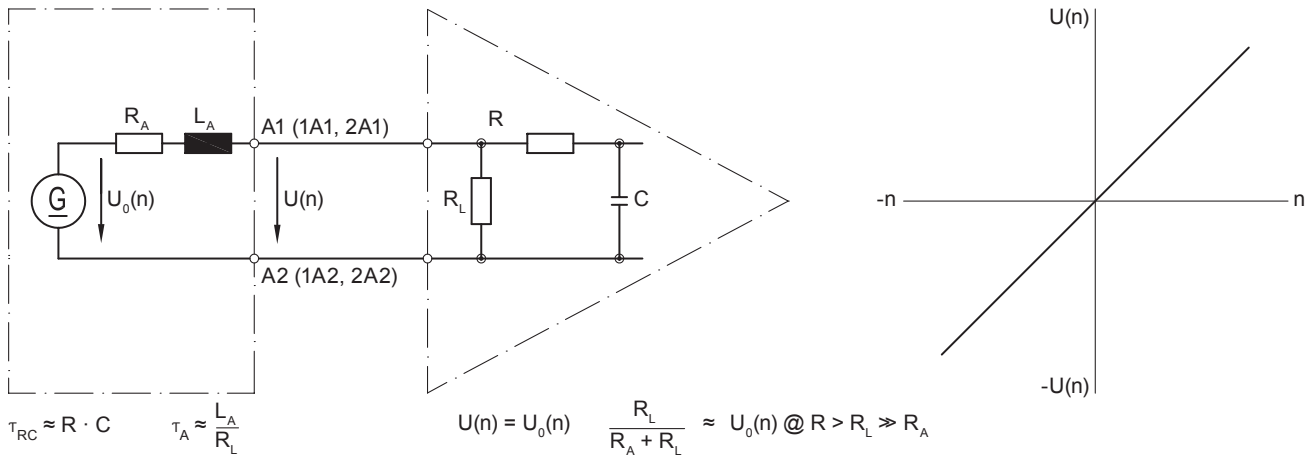
Superimposed ripple (for τ_{RC} = 0.7 ms):

≤ 0.6% (peak-peak)

≤ 0.2% (rms)

Equivalent circuit diagram

Tachogenerator



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

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)