

TDP 0,2, TDPZ 0,2

Solid shaft with EURO flange B10 or housing foot B3

With own bearings

Overview

- Low response time
- Open circuit voltage 10...150 mV per rpm
- Redundant output (TDPZ)
- EURO flange B10 or housing foot B3
- Very high resistance to shock
- High signal quality due to patented LongLife technology
- Recognition of sense of rotation possible via control



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) |
| Performance | TDP: 12 W (speed ≥3000 rpm) TDPZ: 2x 3 W (speed ≥3000 rpm) |
| Armature-circuit time-constant | <75 μs (TDP) <40 μs (TDPZ) |
| Open-circuit voltage | TDP: 10...150 mV per rpm TDPZ: 20...100 mV per rpm |
| Interference immunity | EN 61000-6-2 |
| Emitted interference | EN 61000-6-3 |
| Approval | CE CSA |

Technical data - mechanical design

| | |
|---------------|---|
| Size (flange) | ø115 mm |
| Shaft type | ø11 mm solid shaft ø7 mm solid shaft (optional) ø14 mm solid shaft (optional) |

Technical data - mechanical design

| | |
|-------------------------|--|
| Flange | EURO flange B10 Housing foot B3 |
| Protection EN 60529 | IP 55 IP 56 (option) |
| Operating speed | ≤10000 rpm |
| Torque | 1.5 Ncm |
| Rotor moment of inertia | 1.1 kgcm ² (TDP) 1.2 kgcm ² (TDPZ) |
| Admitted shaft load | ≤60 N axial ≤80 N radial |
| Material | Housing: aluminium die-cast Shaft: stainless steel |
| Operating temperature | -30...+130 °C |
| 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 (TDP) 2.9 kg (TDPZ) |
| Connection | Terminal box |

Optional

- Marine air protected/tropicalized
- Second shaft end (B14)

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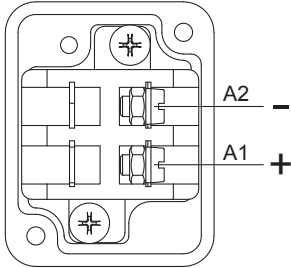
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Terminal assignment

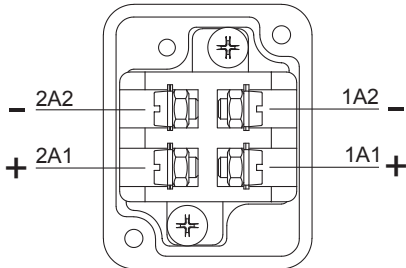
View A (see dimension)

Connecting terminal tachogenerator TDP
Polarity for positive rotating direction



View A (see dimension)

Connecting terminal twin tachogenerator TDPZ
Polarity for positive rotating direction



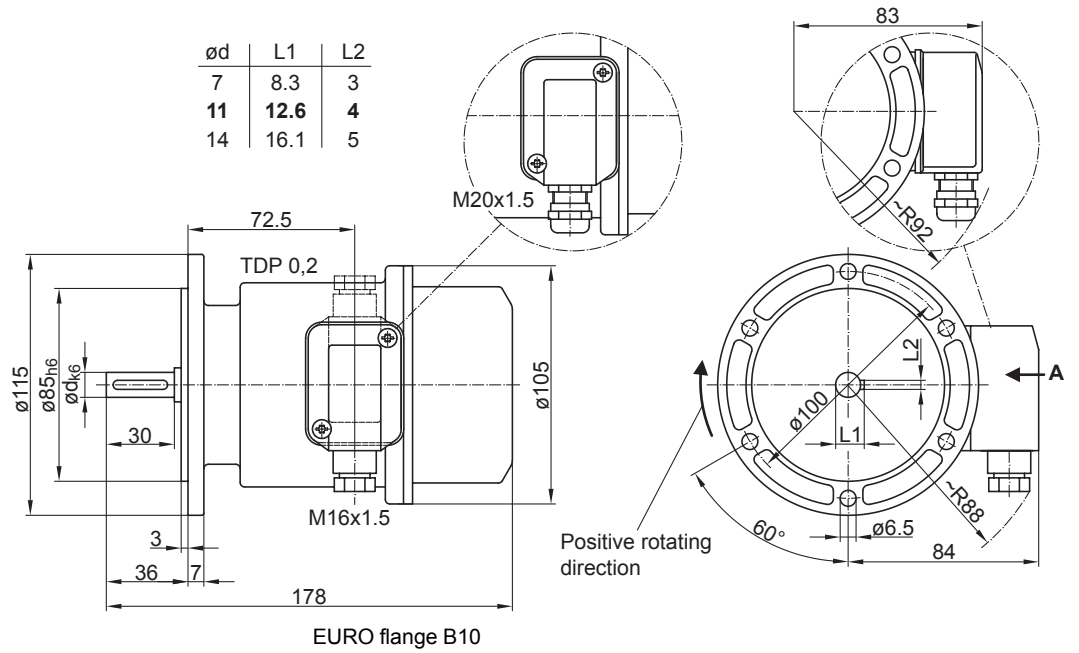
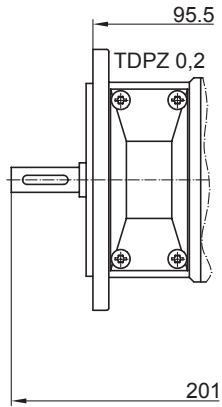
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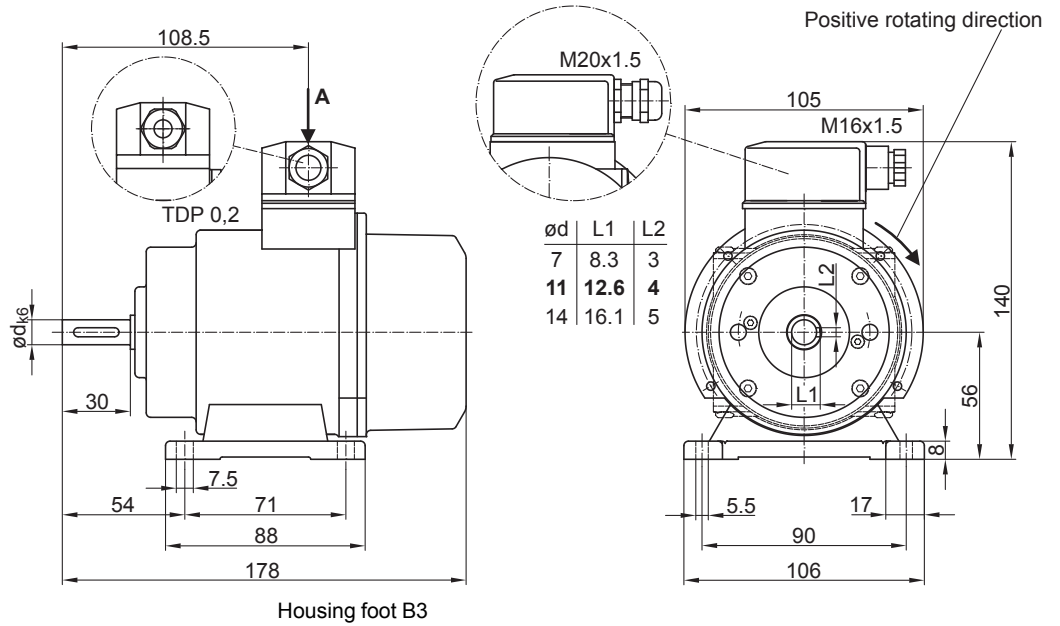
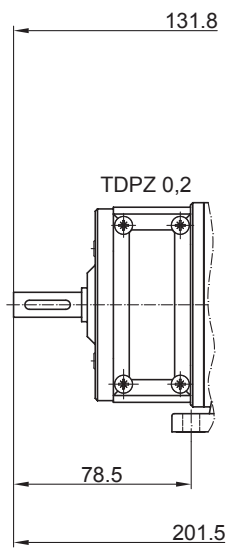
With own bearings

Dimensions

| ød | L1 | L2 |
|-----------|-------------|----------|
| 7 | 8.3 | 3 |
| 11 | 12.6 | 4 |
| 14 | 16.1 | 5 |



EURO flange B10



Housing foot B3

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Ordering reference

| | | | |
|---|--------------|--------------|--------------|
| | TDP # | ##### | ##### |
| Product | TDP | | |
| Tachogenerator | | | |
| Design | | | |
| Tachogenerator | | | |
| Twin tachogenerator | Z | | |
| Open-circuit voltage | | | |
| 10 mV per rpm (not available for TDPZ) | | 0,2LT-6 | |
| 20 mV per rpm | | 0,2LT-7 | |
| 30 mV per rpm | | 0,2LT-10 | |
| 40 mV per rpm | | 0,2LT-5 | |
| 60 mV per rpm | | 0,2LT-4 | |
| 100 mV per rpm | | 0,2LT-3 | |
| 150 mV per rpm (not available for TDPZ) | | 0,2LT-1 | |
| Mounting type | | | |
| EURO flange B10 | | | B10 |
| Housing foot B3 | | | B3 |

Data according to type

| Type | Open-circuit voltage U _o [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 [kΩ] | 0-6000 R _L [kΩ] | 0-n _{max} R _L [kΩ] | | | |
| TDP0,2 LT-6 | 10 | ≥0.1 | ≥0.3 | ≥0.9 | 10000 | 3 | 6 |
| TDP0,2 LT-7 | 20 | ≥0.3 | ≥1.2 | ≥3.3 | 10000 | 11 | 23 |
| TDP0,2 LT-10 | 30 | ≥0.7 | ≥2.7 | ≥7.5 | 10000 | 26 | 50 |
| TDP0,2 LT-5 | 40 | ≥1.2 | ≥5 | ≥13.5 | 10000 | 47 | 90 |
| TDP0,2 LT-4 | 60 | ≥2.7 | ≥11 | ≥30 | 10000 | 99 | 200 |
| TDP0,2 LT-3 | 100 | ≥7.5 | ≥30 | ≥30 | 6000 | 271 | 550 |
| TDP0,2 LT-1 | 150 | ≥16 | --- | ≥30 | 4000 | 630 | 1260 |
| Twin tachogenerator with redundant output (The data refer to each of the two tachogenerator outputs) | | | | | | | |
| TDPZ0,2 LT-7 | 20 | ≥1.2 | ≥4.8 | ≥14 | 10000 | 19 | 45 |
| TDPZ0,2 LT-10 | 30 | ≥2.7 | ≥11 | ≥30 | 10000 | 42 | 103 |
| TDPZ0,2 LT-5 | 40 | ≥4.8 | ≥20 | ≥54 | 10000 | 70 | 170 |
| TDPZ0,2 LT-4 | 60 | ≥11 | ≥44 | ≥120 | 10000 | 160 | 390 |
| TDPZ0,2 LT-3 | 100 | ≥30 | ≥120 | --- | 6000 | 445 | 1080 |
| Superimposed ripple (for τ _{RC} = 0.7 ms): | | ≤0.5% (peak-peak) | | ≤0.2% (rms) | | | |

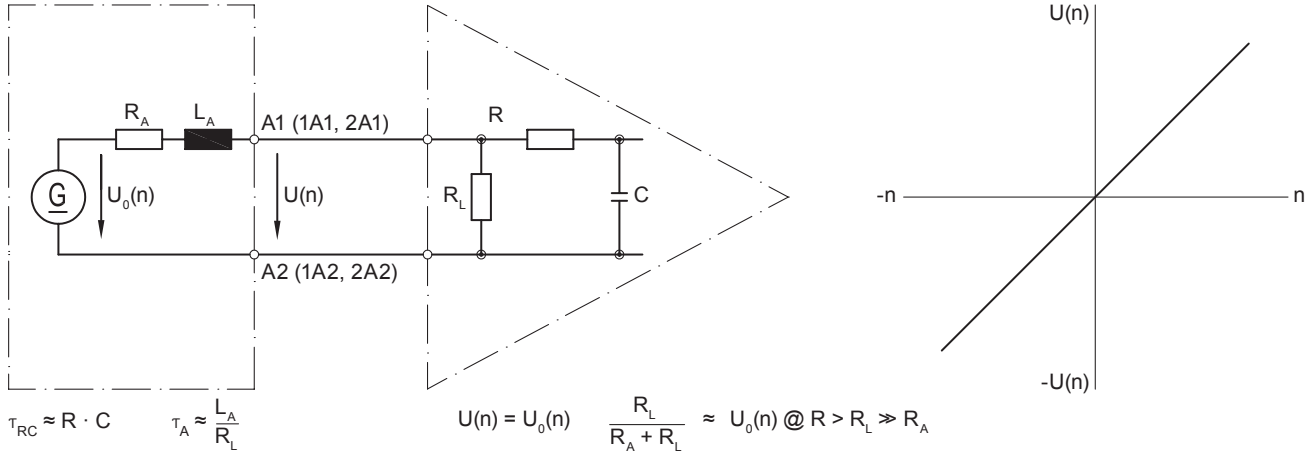
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Equivalent circuit diagram

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 $\varnothing 6 \dots 12$ mm)
- Spring disk coupling K 50 (shaft $\varnothing 11 \dots 16$ mm)
- Spring disk coupling K 60 (shaft $\varnothing 11 \dots 22$ mm)