

3.2.2 ROD 320.005 incremental encoders

Version:	Optical encoder system with different pulse numbers (refer to the Catalog)
Coupling:	Via a taper on the drive end (this is integrated in the motor)
Application:	Indirect measuring system for digital position control loop
Evaluation:	Incremental
Output signals:	Squarewave; RS422 (TTL)
Connection:	Connector

Table 3-3 Technical data, ROD 320.005 pulse encoder

Mech. speed Electr. speed Operating voltage Current drain Frequency range	max. 8500 RPM Dependent on the pulse number (refer below) 5 V DC \pm 5 % \leq 150 mA (without load) 0 to 300 kHz
Edge clearance Delay V_{a0} to V_{a1} and V_{a2} Output load capacity	$a \geq$ 420 ns $t_d \leq$ 50 ns $I_{high} \leq$ DC 20 mA $I_{low} \leq$ DC 20 mA; $C_{Load} \leq$ 1000 pF
Short-circuit strength	Briefly, all outputs with respect to 0 V; 1 output continuously at \leq 25 °C
Light source	Vibration-proof LED
Operating temperature	-30 °C to +100 °C
Intrinsic moment of inertia	$0.035 * 10^{-4}$ kgm ²
Weight	0.25 kg

3.2 Encoders

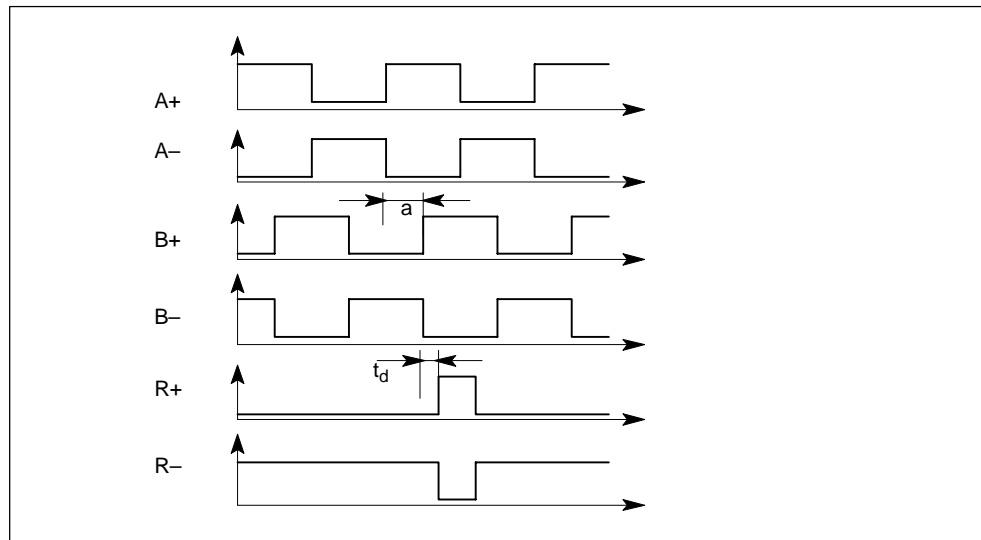


Fig. 3-2 Signal characteristic for clockwise direction of rotation

The servomotors may only be utilized for an overtemperature for $\Delta T = 60$ K.

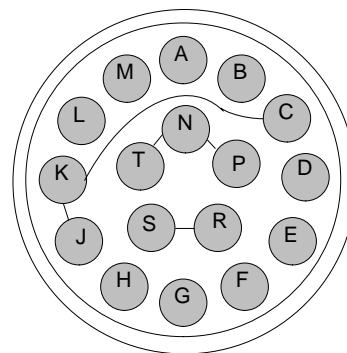
Maximum electrical speed:

$$n_{\max} = \frac{f_g * 10^3 * 60}{\text{Pulse number}} \text{ [RPM]}$$

f_g [kHz] Limiting frequency (-3dB)

Connection assignment for 17-pin flange-mounted socket with pin contacts

PIN No.	Signal
A	A+
B	B+
C, J, K	+5 V
D	A-
E	B-
F	R+
G	R-
H	Shield
N, P, T	0 V
R, S	Bridge
L	Vas ¹⁾



When viewing the plug-in side (pins)

Mating connector: 6FC9348-7AV01 (socket)

Pre-assembled cable: refer to Catalog NC Z

1) Fault signal: LED monitoring