

ROLLERDRIVE EC310

RollerDrive with a long service life for a wide range of applications

Product Description

- Internal commutation electronics (brushless motor)
- 9 gear stages
- Constant conveyor speed
- Energy recovery in braking (see also p 195)
- Electronic holding brake (Zero-Motion-Hold) for driving falling conveyors
- Motor cable with 5-pin snap-in plug, without the need for complex screwing

Technical Data

General technical data	
Mechanical power	32 W
Max. noise level	50 dB(A) (application-dependent)
Possible static bearing load	
Slave side: Female thread / Spring-loaded shaft	1100 N
Slave side: PolyVee with female thread / spring-loaded shaft	
Round belt head with female thread / with spring-loaded shaft	350 N
Electrical data	
Rated voltage	24 V DC
Temporarily permissible voltage range	18 to 28 V DC
Idle current	0.4 A
Rated current	2.0 A
Max. start-up current	5.0 A
Permissible voltage undulation	< 3 %
Protection rate	IP54
Dimensions	
Tube diameter / Wall thickness	50 x 1.5 mm; 51 x 2 mm
Max. reference length	1,500 mm
Ambient conditions	
Ambient temperature in operation	0 to +40 °C
Ambient temperature during transport and storage	-30 to +75 °C
Max. air humidity	85 %

Product Selection

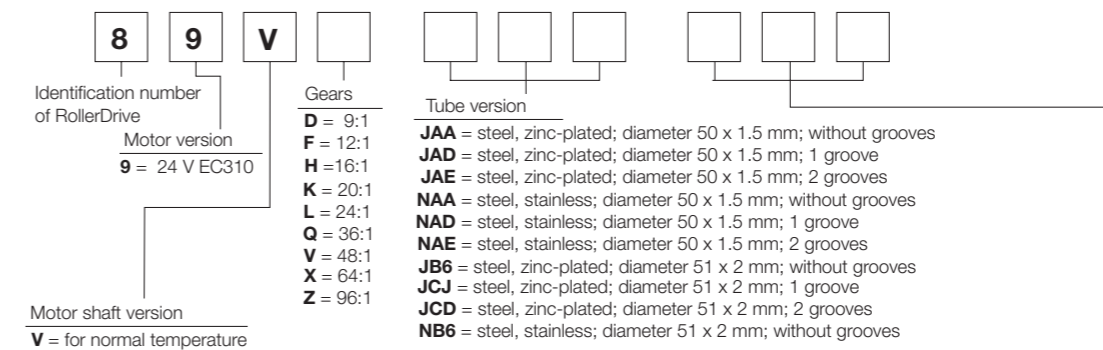
The following tables provide an overview of the possible versions.

Gear ratio	Max. conveyor speed	Rated torque	Start-up torque	Zero motion hold
	m/s	Nm	Nm	Nm
9:1	1.75	0.45	1.10	0.36
12:1	1.31	0.61	1.46	0.48
16:1	0.98	0.81	1.95	0.64
20:1	0.79	1.01	2.44	0.80
24:1	0.65	1.21	2.92	0.96
36:1	0.44	1.82	4.38	1.44
48:1	0.33	2.42	5.85	1.92
64:1	0.25	3.23	7.80	2.56
96:1	0.16	4.84	11.69	3.84

Gear stage versions

Tube material	Stainless steel; steel, zinc-plated; steel, chrome-plated; aluminium
Motor shaft	11 mm with hex and thread M12 x 1
Motor shaft material	Stainless steel
Tube sleeve	PVC hose 2 / 5 mm, PU hose 2 mm, rubber coating 2 to 5 mm, tapered tube sleeves
Length of motor cable	0.48 m

Further versions



Reference number

Assembly & design on non-cable side

- 6FT** = Bearing housing without torque transmission, female thread, uncoated ball bearing, stainless steel fixing material
- 6FN** = Bearing housing without torque transmission, female thread, stainless steel ball bearing, stainless steel fixing material
- 8SL** = Bearing housing without torque transmission, spring-loaded shaft, uncoated ball bearing, zinc-nickel-coated fixing material
- 5PF** = PolyVee head, female thread, uncoated ball bearing, zinc-plated fixing material
- 5PS** = PolyVee head, spring-loaded shaft, uncoated ball bearing, stainless steel fixing material
- 5PT** = PolyVee head, spring-loaded shaft, stainless steel ball bearing, stainless steel fixing material
- 5RF** = Round belt head, female thread, uncoated ball bearing, zinc-plated fixing material
- 5RS** = Round belt head, spring-loaded shaft, uncoated ball bearing, stainless steel fixing material
- 6TF** = Toothed belt head, female thread, stainless steel ball bearing, stainless steel fixing material
- 6SF** = Double sprocket head, female thread, stainless steel ball bearing, stainless steel fixing material

Not all criteria can be combined: please ask about tapered tube designs and tube coatings

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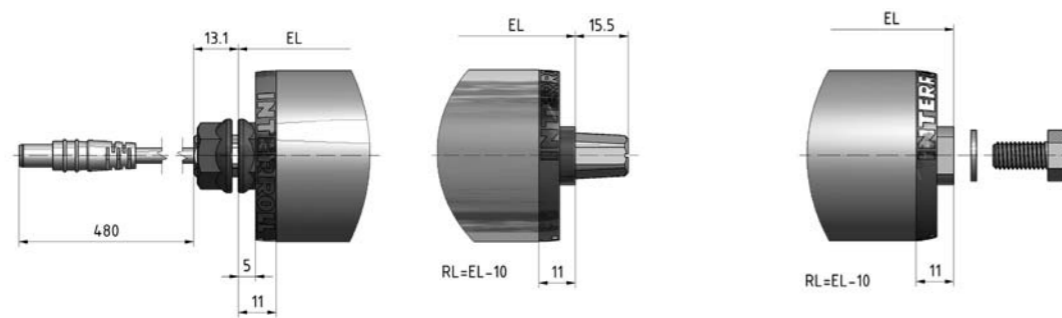
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Dimensions and Connections

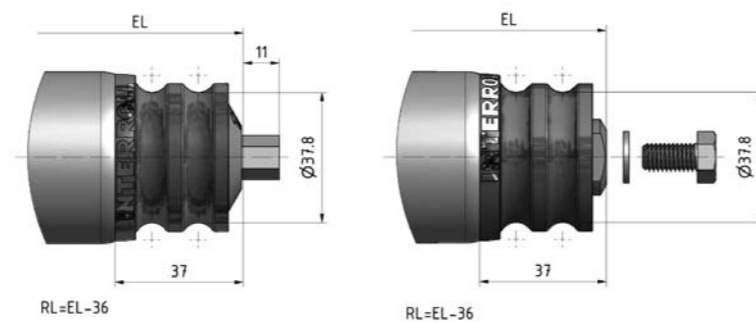
Dimensions

The dimensions depend on the shaft and counter bearing selected. The reference length/ordering length RL does not have any reference edges on the conveyor roller and can therefore not be shown. The installation (EL) corresponds to the clearance between the side profiles. All dimensions in mm.

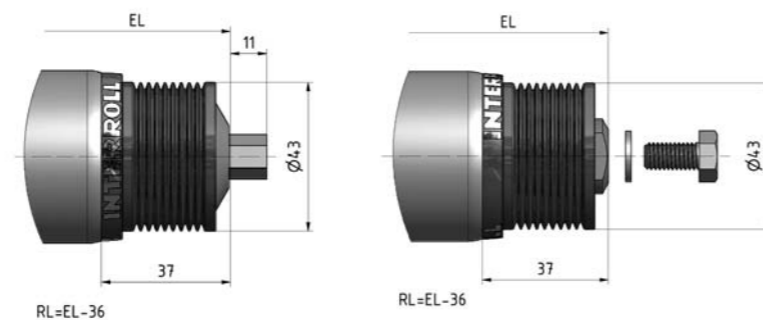
Motor side	Slave side	
11 mm hex M12 x 1	11 mm hex spring-loaded shaft	Female thread M8
	Straight	



Round belt head



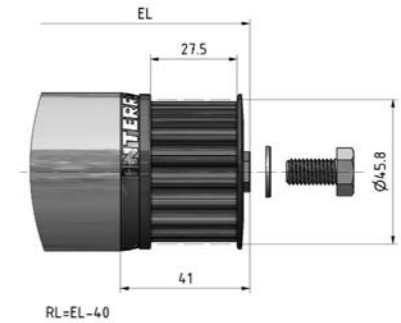
PolyVee Heads



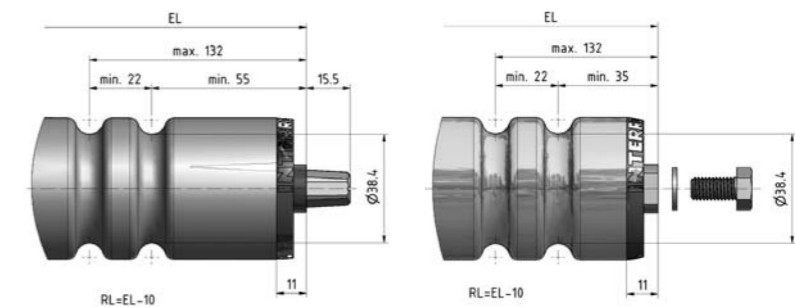
Motor side

Slave side

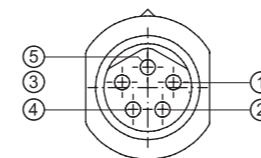
11 mm hex spring-loaded shaft	Female thread M8
	Toothed belt head



2 grooves



Motor plug assignment:



Pin	Colour	Line
1	Brown	+24 V DC
2	White	Direction of rotation
3	Blue	Earth
4	Black	Fault output
5	Grey	Analogue speed input

Motor plug