



RollerDrives
EC310

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 197)
- Electronic holding brake
- Motor cable with 5-pole snap-in plug

Technical Data

General technical data	
Mechanical power	32 W
Noise level	55 dB(A)
Max. load capacity with a reference length of from 300 to 1,000 mm	1,100 N
Max. load capacity with a reference length of from 1,010 to 1,500 mm	490 N
Electrical data	
Rated voltage	24 V DC
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	< 5 %, recommended: < 1 %
Protection rate	IP54
Dimensions	
Tube diameter	50 mm
Wall thickness	1.5 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	90 %, non-condensing

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
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	Shaft	Gear ratio	Min. reference length
2 grooves	11 mm hex spring-loaded shaft	9:1	335
		12:1 / 16:1 / 24:1	331
		36:1 / 48:1 / 64:1 / 96:1	342
	Female thread M8	9:1	315
		12:1 / 16:1 / 24:1	311
		36:1 / 48:1 / 64:1 / 96:1	322
Without grooves	11 mm hex spring-loaded shaft	9:1	312
		12:1 / 16:1 / 24:1	308
		36:1 / 48:1 / 64:1 / 96:1	319
	Female thread M8	9:1	270
		12:1 / 16:1 / 24:1	266
		36:1 / 48:1 / 64:1 / 96:1	277
PolyVee head Round belt head	11 mm hex spring-loaded shaft	9:1	305
		12:1 / 16:1 / 24:1	301
		36:1 / 48:1 / 64:1 / 96:1	312
	Female thread M8	9:1	295
		12:1 / 16:1 / 24:1	291
		36:1 / 48:1 / 64:1 / 96:1	302
Toothed belt head Chain head	Female thread M8	9:1	287
		12:1 / 16:1 / 24:1	283
		36:1 / 48:1 / 64:1 / 96:1	294

Counter bearing
and min.
reference length
versions

Tube material	Steel, stainless steel / Steel, zinc-plated
Shaft material	Steel, stainless steel / Steel, zinc-plated
Motor shaft	11 mm with hex and thread M12 x 1
Tube sleeve	PVC, 2 mm / PVC, 5 mm
Length of motor cable	0.48 m

Further versions

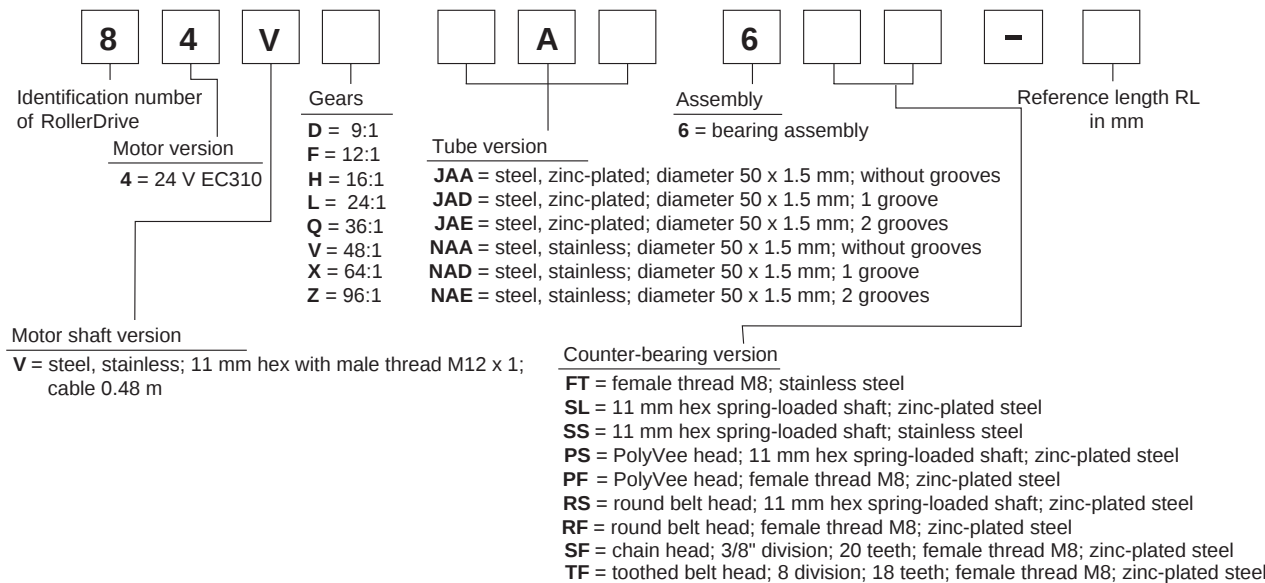


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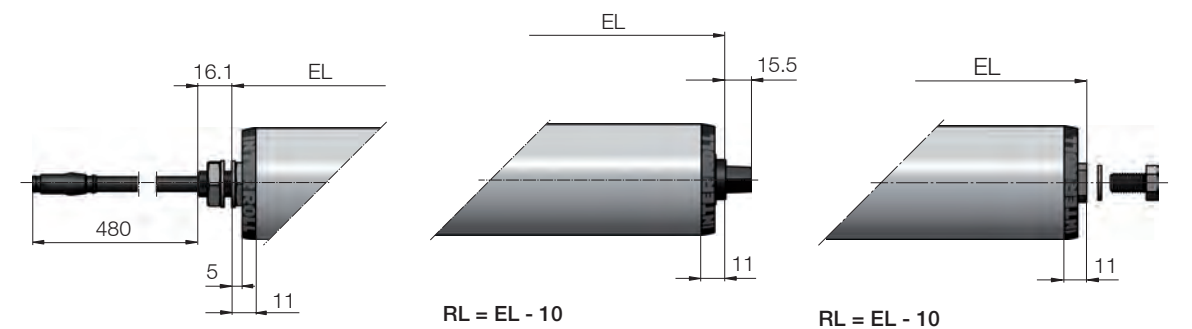
Reference
number



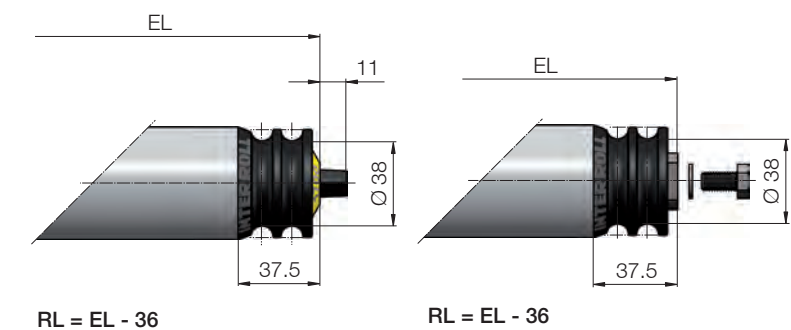
Dimensions and Connections

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.

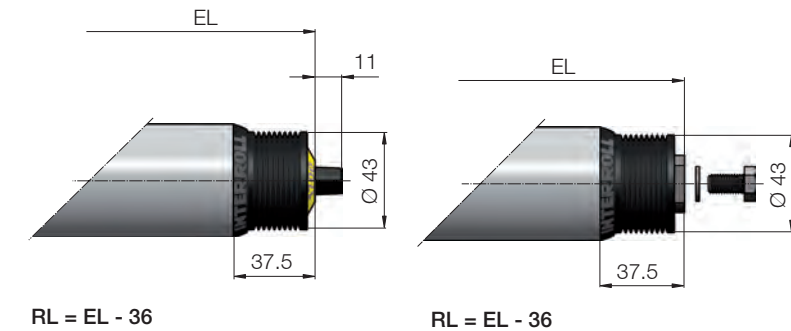
Motor shaft	Counter bearing	Female thread M8
11 mm hex M12 x 1	11 mm hex spring-loaded shaft	
	Straight	



Round belt head



PolyVee Heads





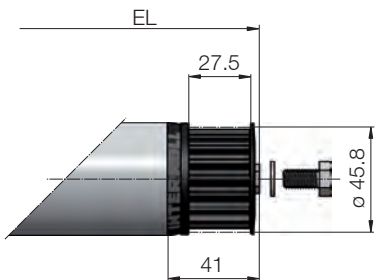
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Motor plug

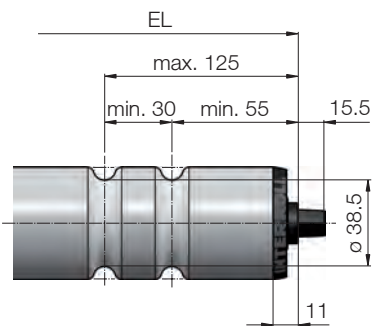
Motor shaft

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

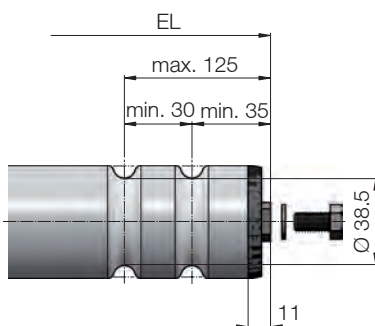


$RL = EL - 40$

2 grooves

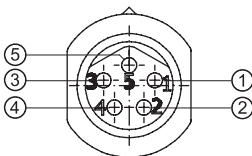


$RL = EL - 10$



$RL = EL - 11$

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