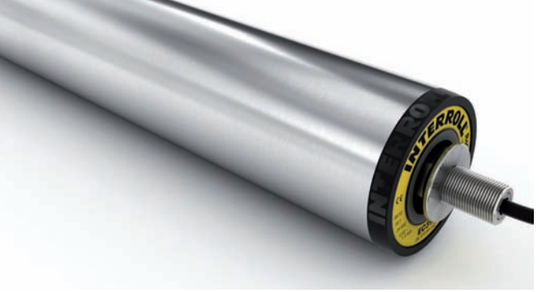


ROLLERDRIVE EC310 FOR REFRIGERATED APPLICATIONS

Product Description

- Internal commutation electronics (brushless motor)
- 4 gear stages
- Constant conveyor speed
- Energy recovery in braking (see also p 195)
- Electronic holding brake
- 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	-30 to 0 °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 stage versions

Gear ratio	Max. conveyor speed	Rated torque	Start-up torque	Zero motion hold
	m/s	Nm	Nm	Nm
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

Further 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

Reference number

8 9 Y ☐ ☐ ☐ ☐ ☐ ☐ ☐

Identification number of RollerDrive
9 = 24 V EC310

Motor version

Motor shaft version
Y= For refrigerated applications

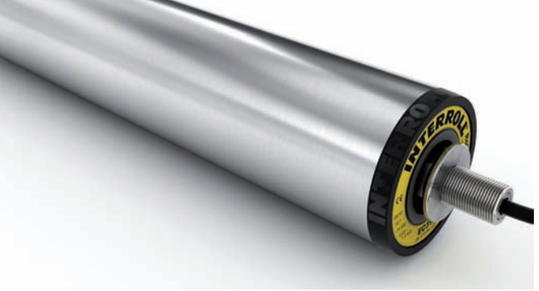
Gears
K = 20:1
L = 24:1
Q = 36:1
V = 48:1

Tube version
JAA = steel, zinc-plated; diameter 50 x 1.5 mm; without grooves

Tube version
JAD = steel, zinc-plated; diameter 50 x 1.5 mm; 1 groove
JAE = steel, zinc-plated; diameter 50 x 1.5 mm; 2 grooves
NAA = steel, stainless; diameter 50 x 1.5 mm; without grooves
NAD = steel, stainless; diameter 50 x 1.5 mm; 1 groove
NAE = steel, stainless; diameter 50 x 1.5 mm; 2 grooves
JB6 = steel, zinc-plated; diameter 51 x 2 mm; without grooves
JCJ = steel, zinc-plated; diameter 51 x 2 mm; 1 groove
JCD = steel, zinc-plated; diameter 51 x 2 mm; 2 grooves
NB6 = steel, stainless; diameter 51 x 2 mm; without grooves

Assembly & design on non-cable side
6FD = Bearing housing without torque transmission, female thread, uncoated ball bearing, stainless steel fixing material
5PA= PolyVee head, female thread, uncoated ball bearing, zinc-plated fixing material
5PB= PolyVee head, spring-loaded shaft, uncoated ball bearing, stainless steel fixing material
5RA= Round belt head, female thread, uncoated ball bearing, zinc-plated fixing material

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



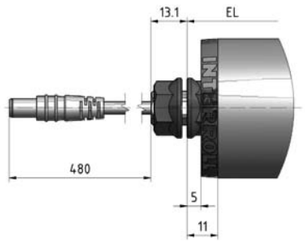
ROLLERDRIVE EC310 FOR REFRIGERATED APPLICATIONS

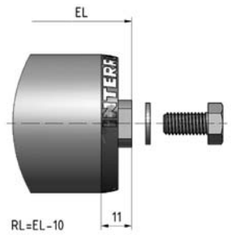
Dimensions and Connections

Dimensions

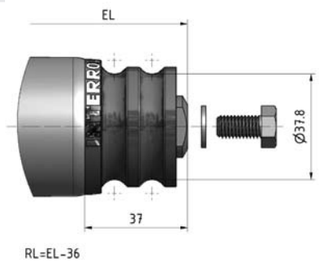
The dimensions depend on the shaft and counter bearing selected. The reference length/ordering length RL does not have any reference edges on the conveyor roller and can therefore not be shown. The installation (EL) corresponds to the clearance between the side profiles. All dimensions in mm.

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

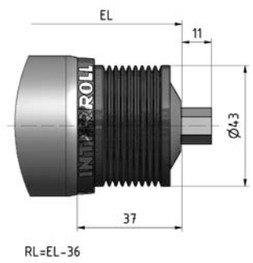


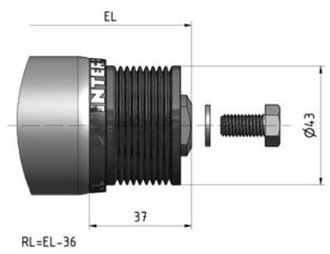


Round belt head

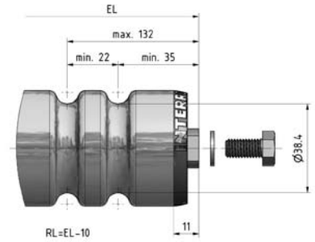


PolyVee Heads

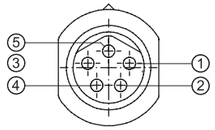




Motor side	Slave side	
	11 mm hex spring-loaded shaft	Female thread M8
2 grooves		



Motor plug assignment:



Motor plug

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