DMD50
for container conveyor technology

Drum motor for operation on a decentralized Motor Controller for efficient, zero pressure accumulation conveying.

Applications

Reliable drive solutions for applications in general cargo conveying technology under normal environmental conditions. Designed for the safe and efficient transport of boxes, containers and workpiece carriers, the drives impress with their versatile application options in different conveying concepts. They are particularly suitable for line conveyors and compact belt conveyors as well as for zero-pressure accumulation conveyor technology systems where a consistent material flow is crucial.

In addition, the drives can be easily integrated into shuttle systems, alignment conveyor segments and transfer routes and flexibly support the implementation of branches and distribution structures within complex conveyor systems. Thanks to their robust design and high adaptability, they represent an economical and powerful solution for modern intralogistics processes.

Features & Benefits

- Integrated encoders for operation on decentralized Motor Controllers
- Brushless drive technology
- Available as a direct drive (without gearbox) and in a version with gearbox
- Voltage ranges for 24 VDC and 48 VDC
- Low wear and designed to be maintenance-free



DMD50 *Gearless direct drive*

The gearless design enables particularly direct and efficient power transmission while simultaneously reducing energy loss. By eliminating mechanical transmission components, noise, wear and maintenance are significantly minimized. It is also designed for applications with a parcel throughput of up to 1400 parcels per hour with an average weight of 30 kg and a maximum weight of up to 50 kg.

Technical data

		DMD50-AA	DMD50-AB	DMD50-AC	DMD50-AD	DMD50-BA	DMD50-BB	DMD50-BC	DMD50-BD
Rated voltage	VDC	24	24	24	24	48	48	48	48
Rated power (S1)	W	27	40	42	55	28	43	56	77
Speed	m/s	0 - 1.0	0 - 1.0	0 - 2.0	0 - 2.0	0 - 1.0	0 - 1.0	0 - 2.0	0 - 2.0
Nominal torque (S1)	Nm	0.68	1.00	0.52	0.68	0.70	1.05	0.70	0.96
Maximum torque	Nm	1.70	3.40	2.00	2.40	1.80	3.60	1.85	2.90
Rated current	ADC	2.0	3.0	2.5	3.1	1.5	1.5	2.2	3.2
Maximum current	ADC	5.4	10.0	11.6	14.0	4.6	4.9	7.6	8.2

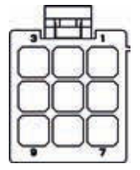
	Configuration
Feedback	sensorless or with Hall sensor
Maximum noise level	< 49 dB(A), application dependent
Length of connecting cable	500 mm
Tube dimensions	Ø 50 x 1.5 mm
Tube material *	Galvanized steel or stainless steel
Tube options*	PVC sleeve / PU sleeve
Ambient temperature *	0 °C ... 40 °C
Protection class *	IP54

* other versions on request

Motor cable connections (sensorless operation)

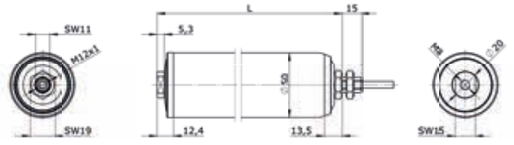
Pin	Signal	Presentation
1	Motor phase U	 M8 B-coded 5-pin/male
2	Motor phase V	
3	Motor phase W	
4	star point	
5	GND	

Hall sensor connections

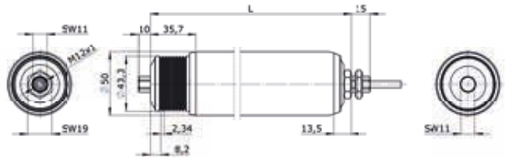
Pin	Signal	Presentation
1	Motor phase U	 9-pin 3-row/male *
2	Motor phase V	
3	Motor phase W	
4	GND 5 V	
5	Supply 5 V	
6	n.c.	
7	Hall 1	
8	Hall 2	
9	Hall 3	

* other versions on request

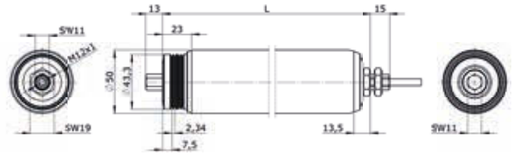
Mechanical versions



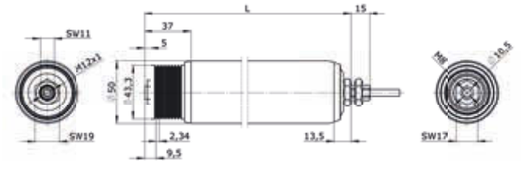
smooth with M8 internal thread



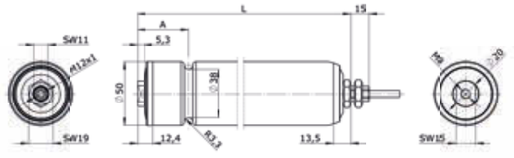
Poly-V, 9 ribs with spring-loaded axle



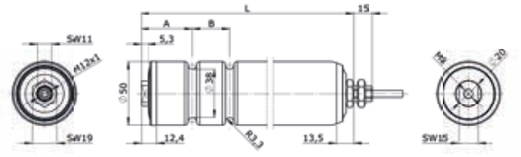
Poly-V, 2x2-ribbed with hexagonal axle



Poly-V, 9-ribbed with through axle

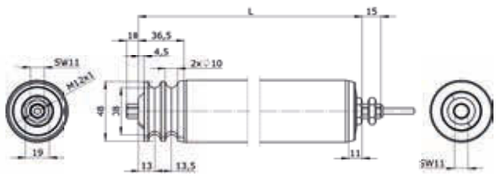


Single groove with M8 internal thread

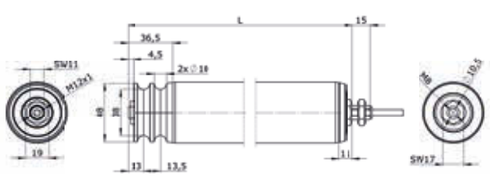


Double groove with M8 internal thread

Variable	Single groove [mm]	Double groove [mm]
A	40.5	40.5
B	-	30
L	clamping length	



Round belt with hexagonal spring axle



Round belt with M8 internal thread can be plugged in