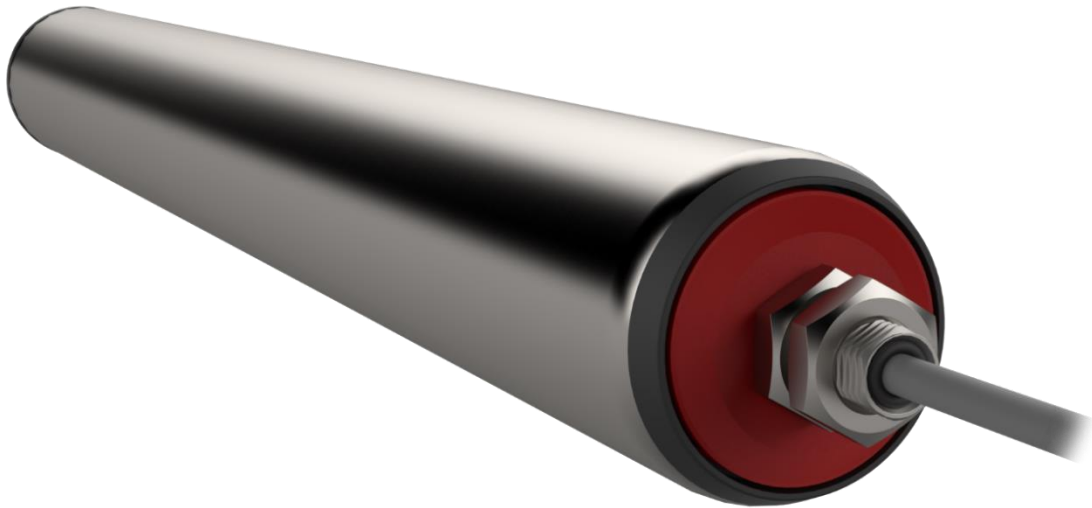


Motor roller ***EUROPA 50***



The EUROPA 50 motor rollers come with very powerful, yet efficient, synchronous motors, which have been designed using the very latest calculation methods for the application in question. The motors are equipped with planetary gears, which are dimensioned for compactness and output density. The planetary wheels of each gearing stage are fitted with their own bearing. This guarantees the highest level of quiet operation and a long working life.

The motor rollers can be adapted to the respective application with regard to their connection dimensions and mechanical/electrical interfaces

Characteristics

Applications

- Package conveying technology for packages, standardised containers, crates, boxes
- Sorting applications (as the drive for the ejection)
- Drive for roller conveyors
- Drive for the belt conveyor and other conveyors

Features

- Synchronous technology with high energy efficiency
- Maintenance-free due to lifetime-lubricated planetary gearboxes
- Available with increased protection standards



Technical data

Technical data		
Motor type		Synchronous motor
Insulation class of the motor winding		Class F
Voltage	VDC	24/48
Nominal current	A	2.1
Maximum current	A	8
Protection type		IP54 (on request IP67)
Thermal protection		I ² t
Noise level	db	< 55dB (depending on the application)
Length of motor cable	mm	500 *
Clamping length	mm	0 ... 600
Ambient temperature	°C	0 to 40
Version A side		Axis M12 × 1, hexagon SW11
Version B side		Bead: a = 40mm, b = 30mm Round, poly V, smooth and bead Roller base antistatic with internal thread M8
Pipe outer diameter	mm	50
Pipe wall thickness	mm	1.5
Pipe material		Galvanised steel / stainless steel
Pipe sleeve		PVC hose, PU hose, rubber coating
Pipe		straight
Maximum load		Depending on pipe length



*Dimensions and design can be adapted according to the customer.

Additional options

- Rubber coating for driving conveyor belts and lower running noise
- Electromagnetic brakes

Electrical connection assignment of the EUROPA 50 motor roller

The following encoder systems are available for operating the motor roller:

- Sensorless control
- Digital reverberation sensors



*Dimensions and design can be adapted according to the customer.

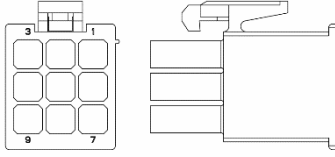
Pin assignment for sensorless control and M8 plug

Signal	Pin	Description	Wire colour	
U	1	Motor phase U	Brown	
V	2	Motor phase V	White	
W	3	Motor phase W	Black	
NP	4	Neutral point	Blue	
PE	5	Earth	Grey	
Cable specification:		Connector specification:		
Construction:		5 x 0.34 mm ²	Type:	Circular connector M8x1
Material:		TPU, UL 20549,	Coding:	B
Nominal voltage:		300V	Gender:	Coupling, pin
Outer diameter:		5.10 +/- 0.15 mm	Number of pins:	5
Temperature:			Manufacturer:	Conec
unmoved:		-40°C ... +		
moved:		-25°C ... +80°C		
Certification:		CE, UL		
Halogen free		Yes		

Pin assignment for reverberation sensors

(Hybrid cable with combined motor and encoder cable)

Signal	Pin	Description	Wire colour
U	2	Motor phase U	Grey
V	1	Motor phase V	Brown
W	3	Motor phase W	Black
	4	n.c.	
GND	5	GND reverberation sensor	White
5V	6	5V supply reverberation sensor	Brown
H1	7	Reverberation sensor 1	Red
H2	8	Reverberation sensor 2	pink
H3	9	Reverberation sensor 3	Yellow



Cable specification: Construction: 3 x AWG16 + 5 x AWG2 unshielded Material: PUR, black Nominal voltage: 300V Outer diameter: 7.4 +/-0.2mm Temperature: unremoved: -40°C ... +80°C moved: -25°C ... +80°C Certification: CE, UL Halogen free: Yes	Connector specification: Type: Mini Mate-N-Lok Gender: Pin Number of pins: 9 (3 rows) Manufacturer: TE
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Gearbox variants

The following table shows the technical data for different gearbox variants in the corresponding power grading.

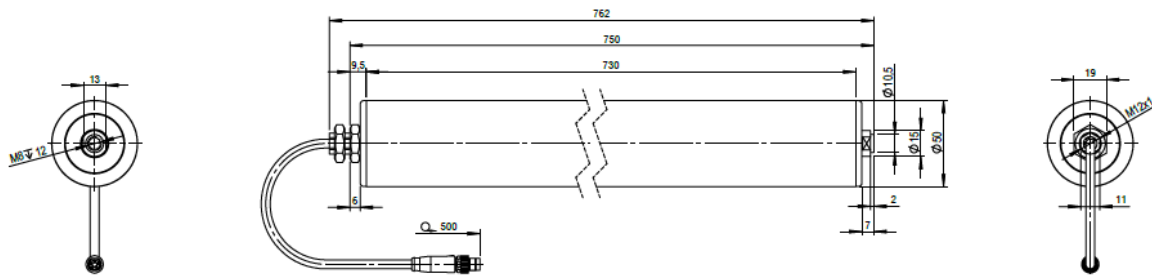
Mechanical data EUROPA 50-51C motor roller

Type	Performance [kW]	v [m/s]	i*	M_n [Nm]	M_{max} [Nm]	Mo [Nm]	F_n [N]	F_{max} [N]
EUROPA 50-51C	0.08	0.007 ... 0.21	49	5.88	14	11.27	235	560
		0.01 ... 0.28	35	4.2	12.88	8.05	168	515
		0.02 ... 0.42	25	3	9.2	5.25	120	368
		0.03 ... 0.52	20	2.4	7.36	4.6	96	294
		0.04 ... 0.64	16	1.92	5.88	3.68	77	235
		0.05 ... 0.76	12	1.44	4.42	2.76	58	177

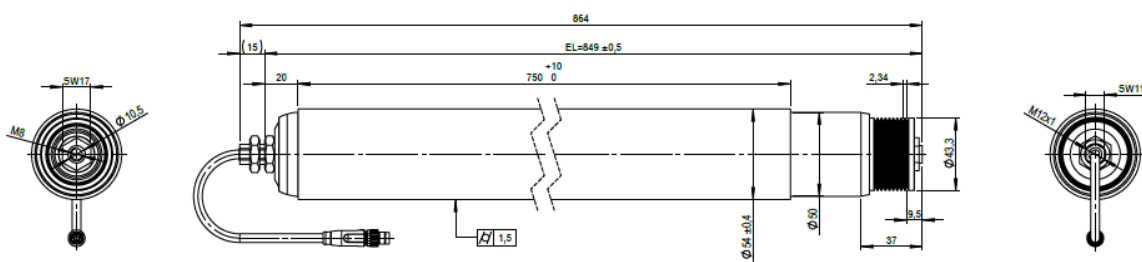
* other gear ratios on request

Dimensions

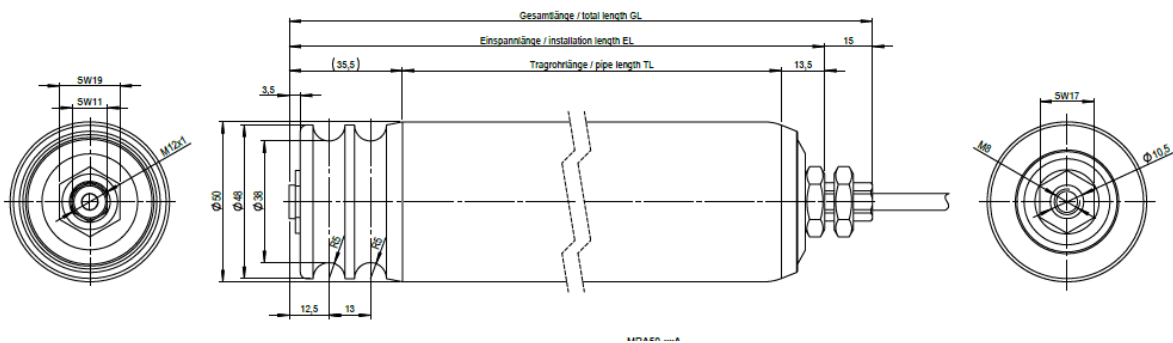
Smooth version



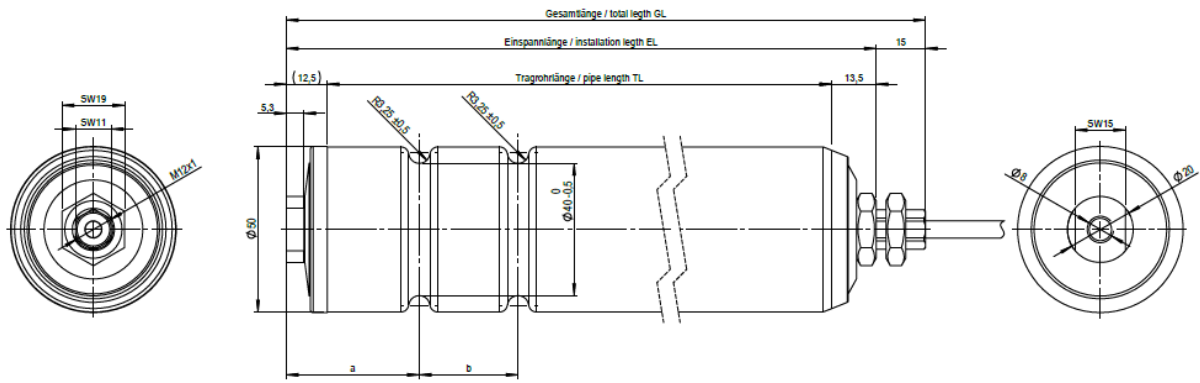
Poly-V belt (and rubber) version



Round belt version



Double bead version



Single bead version

