



The motorized roller PM500FE with brushless technology 24VDC, used with circuit board CBM-105 is designed for conveying light and medium loads for order preparation, distribution, and for assembly lines. This circuit board is separated from the gear-motor in order to optimize the performance, durability of the roller and to offer diverse functions such as pulse signals, acceleration/deceleration, optional position holder... The assembly can be controlled by PLC.

ADVANTAGES

HIGH CAPACITY AND RELIABLE

The transfer speed is high with a rate of up to 1800 start up / hour. Stops are accurate and reliable thanks to the dynamic brake, without wear off.

FLEXIBILITY AND MODULARITY

Decentralized motorization, mounting and ease of use, simplified and fast line modification.

ERROR SIGNAL AND PROTECTION

Defects are detected and reported. The motor and circuit board are protected against overload, overheating, incorrect wiring, the current return, etc..

SIGNAL PULSE

This signal is used to measure data such as distance, speed, etc.. to achieve a more precise control of loads.

ECOLOGY AND SAFETY

No noise or oil rejection. Everything works with very low voltage, without compressed air.

ACCELERATION / DECELERATION

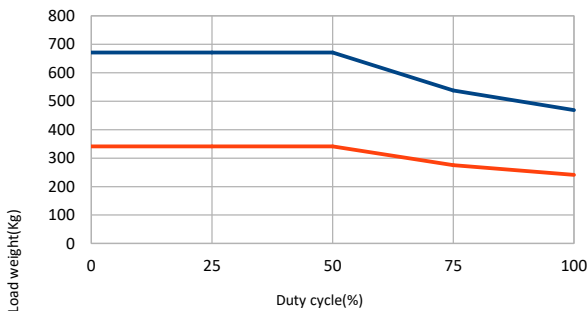
It is possible to adjust the transport speed (from 0 to 2.5 sec) with a soft acceleration and deceleration allowing the safe transport of loads that could be unstable.

SERVO BRAKE

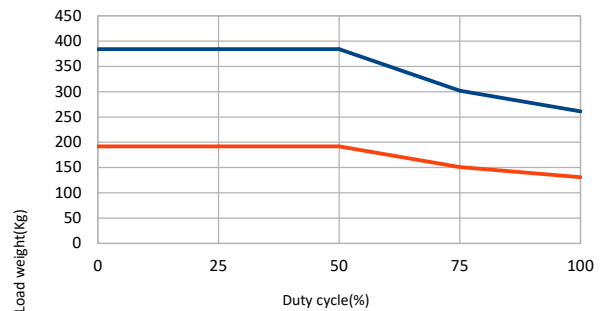
In addition to the dynamic braking, there is a possibility to activate or deactivate the maintaining electronic brake for retaining the charges in position.

TRANSFER CAPACITY

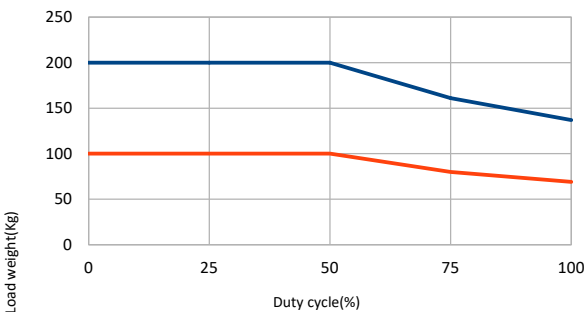
PM500FE 15m/min



PM500FE 25m/min



PM500FE 55m/min



- Load to transport
 - Plastic box ($\mu = 0,03$)
 - Cardboard box ($\mu = 0,06$)
- 9 slave rollers driven by 1 motorized roller



These curves are given as a guide. Transfer capacity depends on the nature and quality of the transported load, the belt tension, the quality of the bearings, the nature of the sleeves, the ambient temperature...

OPTIONS / VARIANTS

Motor shaft :



Plain hexagonal



Threaded hexagonal

Shaft on the non-motor side :



Hexagonal spring loaded



Set crew

Protection index :



IP 54



IP 65

Material :



Zinc plated steel



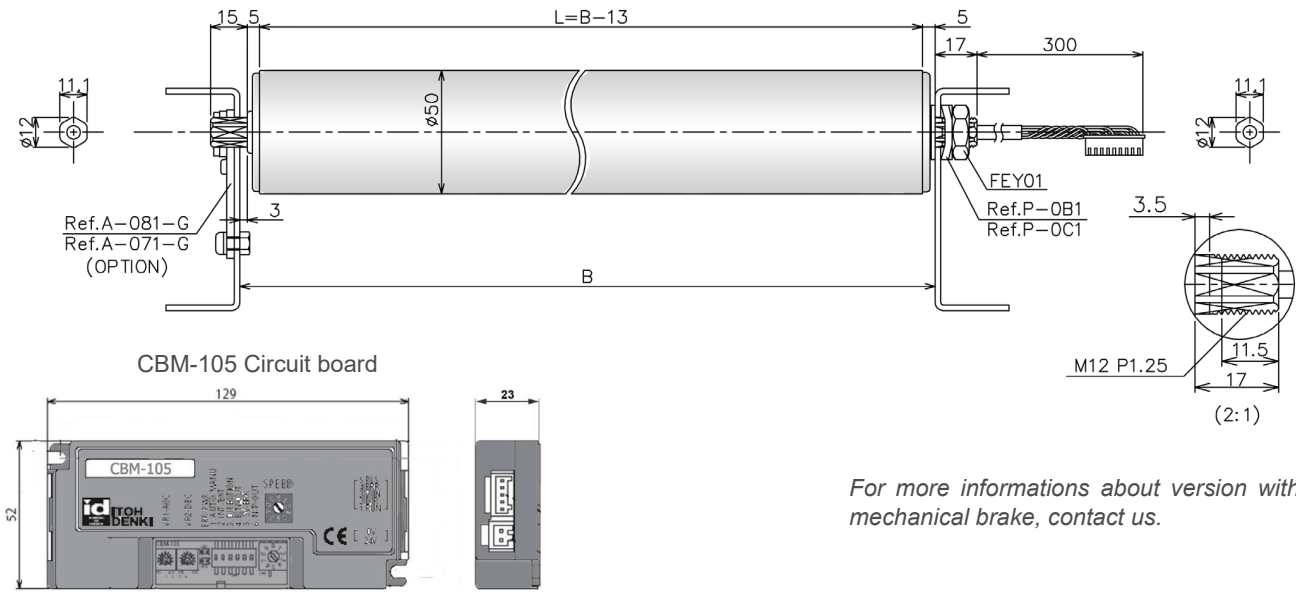
Stainless steel

Contact us for more specifics.

The elements of this document

STRUCTURES AND DIMENSIONS

Without brake motorized roller version : PM500FE



For more informations about version with mechanical brake, contact us.

ELECTRO-MECHANICAL CHARACTERISTICS

CHARACTERISTICS		SPEED CODE 15	SPEED CODE 25	SPEED CODE 55	
ELECTRO-MECHANICAL	Motor	Direct current and brushless 24 VDC			
	Absorbed power (W)	nominal	25 - 67,2		
		start-up	96		
	Tangential force (N)	nominal	133,9 - 143,9	78 - 86	42,8 - 46
		start-up	349,8	225	111,8
	Operation	Continuous or intermittent 1800 starts/h max. Minimum duty cycle : 1s ON / 1s OFF			
	Brake	Dynamic braking			
	Nominal speed (m/min)	no load	2,2 - 17,4	3,7 - 29,3	7,7 - 61,7
		nominal	2,2 - 13,3	3,7 - 25,4	7,7 - 47,3
	Protection index (motor roller)	IP54, 65 (Contact us for other classes)			
Lenght	285 à 1200 mm	260 à 1200 mm	260 à 1200 mm		
Static load max.	300 - 1200 mm = 65 - 15 kg per roller				
CONTROL	Input signal	Start / Stop, Direction of rotation			
	Selection of rotation direction	By dip switch (CW/CCW) or input signal			
	Speed setting	20 speeds with a rotating switch			
		20 speeds by external analog voltage of 0-10VDC			
	Acceleration / Deceleration	Adjustable with potentiometer from 0 to 2,5s			
	Servo-brake activation	ON/OFF by dip switch			
	Pulse signal out-put(imp./tour)	89,9	53,34	25,28	
	Error signal out-put	Over-heating, wiring error, under-voltage, over-voltage...			
Protection	Against polarity reversal 0/24V and power backfeed, fuse, integrated thermal protection				

Shape :



Grooves



Crowned

Pulley :



Ribbed



Grooves

Sleeve :



Tapered



PVC

Lagging :



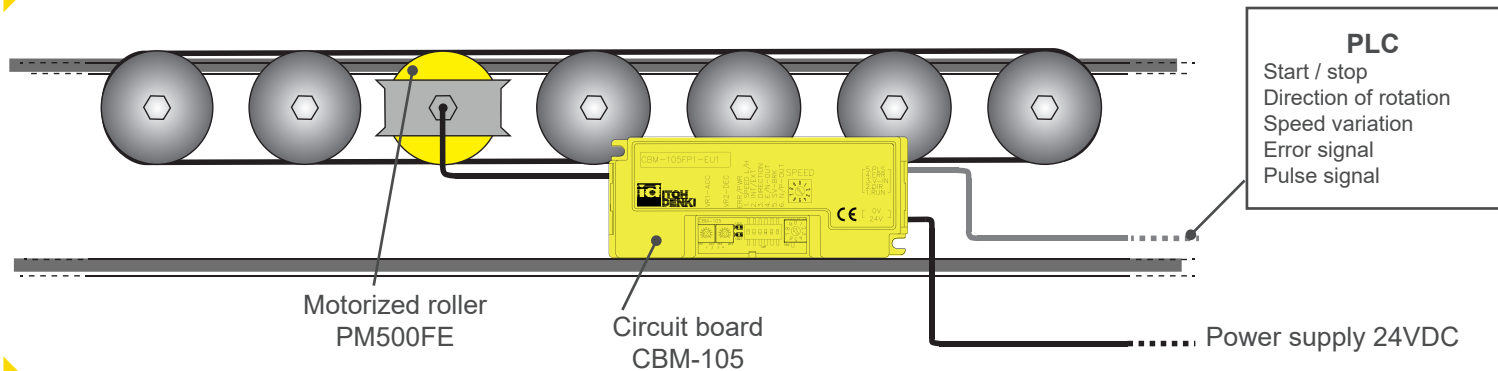
Polyurethane



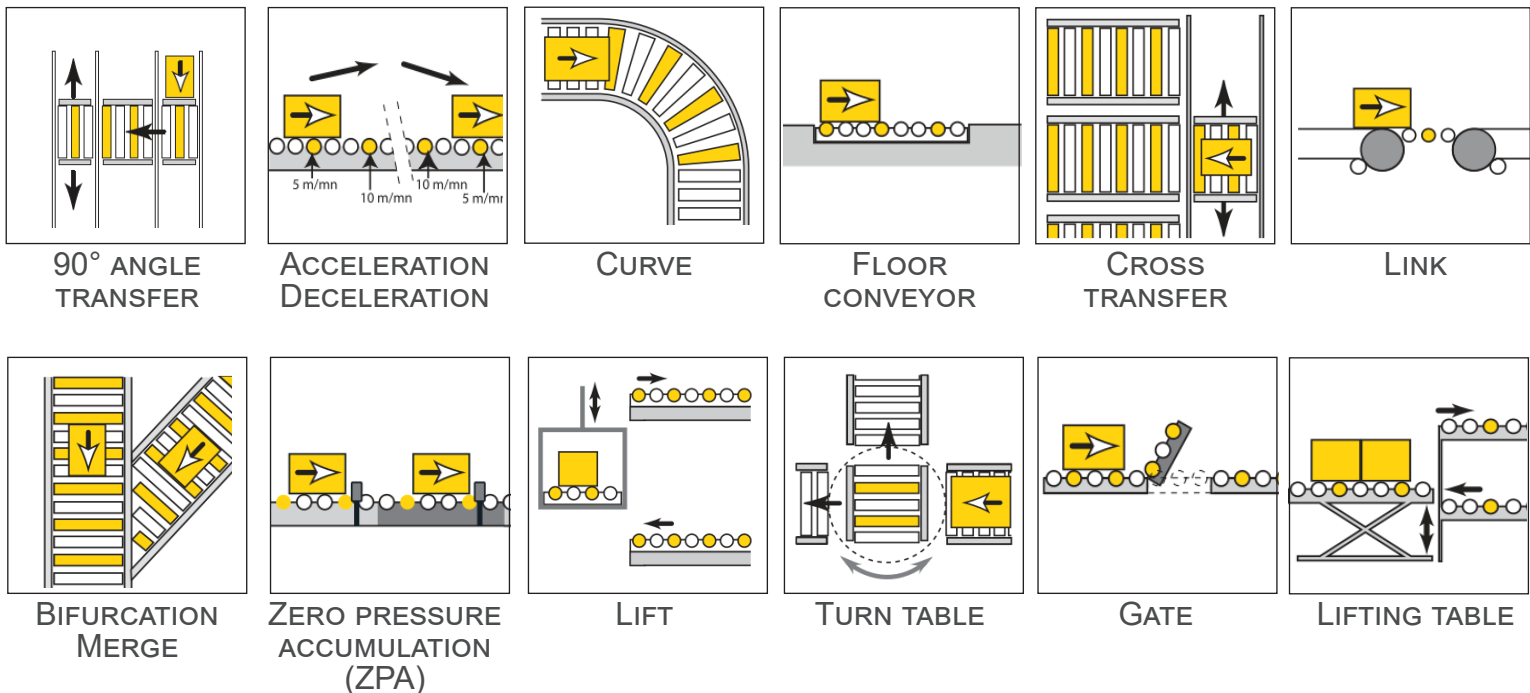
Natural / nitrile

are indicative and could be modified.

WIRING



APPLICATIONS

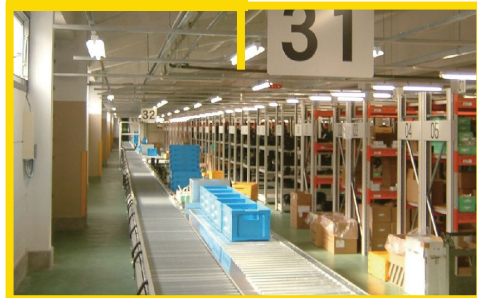


REFERENCES

ORDER PREPARATION



DISTRIBUTION



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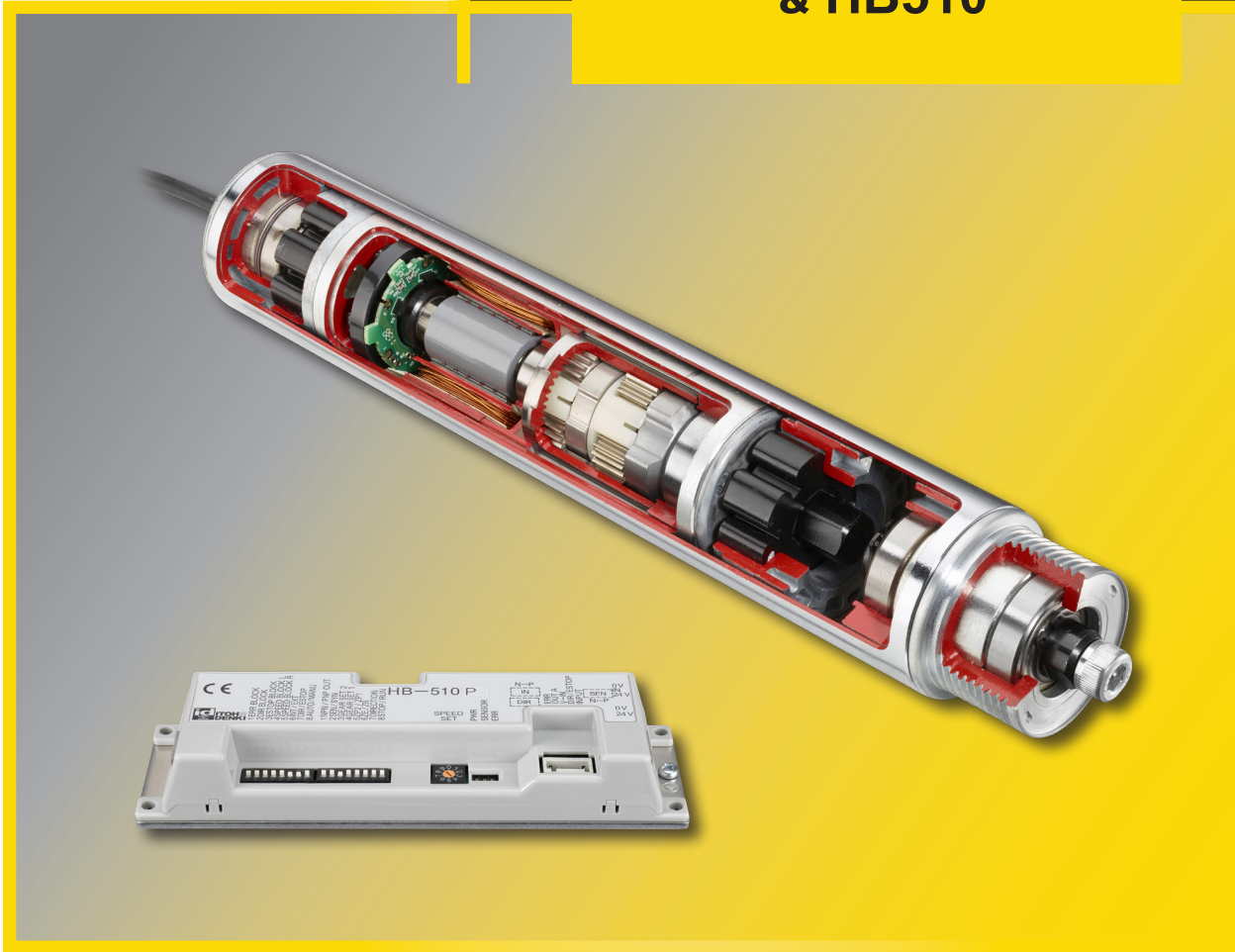
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The power roller PM500FE with brushless technology is associated with the external HB510 circuit board with zero pressure accumulation (ZPA) control, which allows the traceability of the loads to be transported. It is designed for conveying light and medium loads for order preparation, distribution, and for assembly lines.

ADVANTAGES

HIGH CAPACITY AND RELIABLE

The transfer speed is high with a rate of up to 1800 start up / hour. Stops are accurate and reliable thanks to the dynamic brake, without wear off.

FAST AND MODULAR INSTALLATION

It is easy to add or remove conveyor zones through the design of modules without changing the ZPA program.

PROGRAMMED AREAS' MANAGEMENT

All functions necessary to manage zones are preprogrammed to help manage your conveyor.

ECOLOGY AND SAFETY

No noise or oil rejection. Everything works with very low voltage, without compressed air.

ELECTRO-MECHANICAL CHARACTERISTICS

CHARACTERISTICS		SPEED CODE 15	SPEED CODE 25	SPEED CODE 55	
ELECTROMECHANIC	Motor	Direct current and brushless 24 VDC			
	Absorbed power (W)	nominal	29,3 - 60	28,8 - 61,9	29,3 - 60
		start-up	96		
	Tangential force (N)	nominal	118,6 - 127,1	67,7 - 75,0	37,9 - 40,6
		start-up	349,8	225,5	111,8
	Operation	Continuous or intermittent 1800 starts/h max. Minimum duty cycle : 1s ON / 1s OFF			
	Brake	Dynamic braking			
	Nominal speed (m/min)	no load	4,3 - 17,4	7,3 - 29,3	15,4 - 61,7
		nominal	4,3 - 13,9	7,3 - 26,3	15,4 - 49,4
	Protection index (motor roller)	IP54, 65, cold room (<i>Contact us for other classes</i>)			
Lenght	285 à 1200 mm	260 à 1200 mm	260 à 1200 mm		
Static load max.	300 - 1200 mm = 65 - 15 kg per roller				
CONTROL	Speed setting	10 speeds with a rotating switch 10 speeds by external analog voltage of 0-10VDC			
	Error signal in-put	Over-heating, wiring error, under-voltage, over-voltage...			
	Sensor output signal	Recovery sensor state for PLC			
	Protection	Against polarity reversal 0/24V and power backfeed, fuse, integrated thermal protection			
	Sensor timer	Timing sequence of the motorized roller depending on the sensor status of the downstream zone			
	Run holding timer	Timing sequence of the motorized roller depending on the sensor status of the zone to be left			
	Jam timer	Jam/blockage detection of the load depending on the sensor status time			
	Emergency stop	Stop of the motorized rollers of all the defined zones			
	Transfer mode	Selection of train mode or singulation mode by dip switch			
	Transfer direction and logic	Invert the direction of travel and logic for all the defined zones			
	Synchronization function	Synchronization of several motorized rollers in the same zone			
	Forced Start / Forced Stop	The forced start enables evacuating the load of the last zone The forced stop enables inserting load in a defined location			
	Speed control block area	Speed variation simultaneous and synchronized of several motorized rollers			
	Modification program	Contact us			

OPTIONS / VARIANTS

Motor shaft :



Plain hexagonal



Threaded hexagonal

Shaft on the non-motor side :



Hexagonal spring loaded



Set crew

Protection index :



IP 54



Cold room
-30°



IP 65

Material :



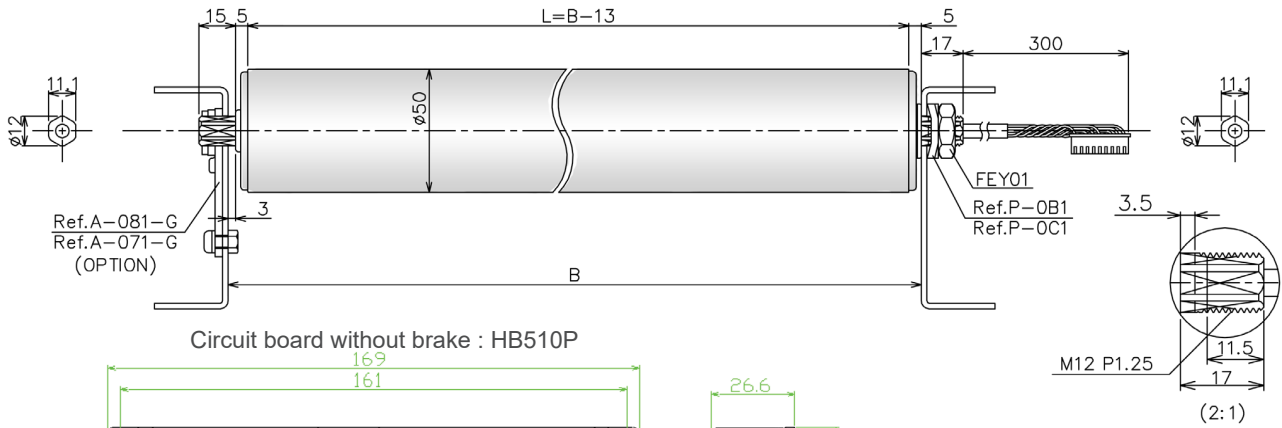
Zinc plated steel



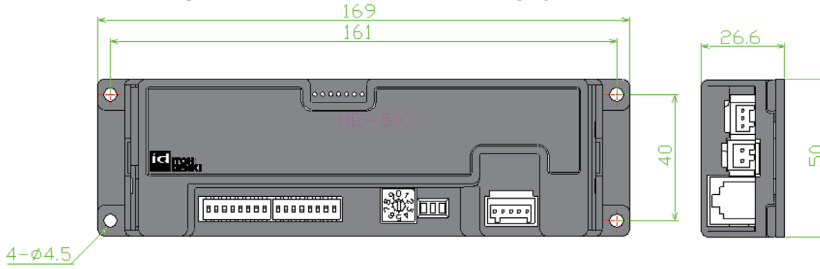
Stainless steel

STRUCTURES AND DIMENSIONS

Motorized roller without brake : PM500FE



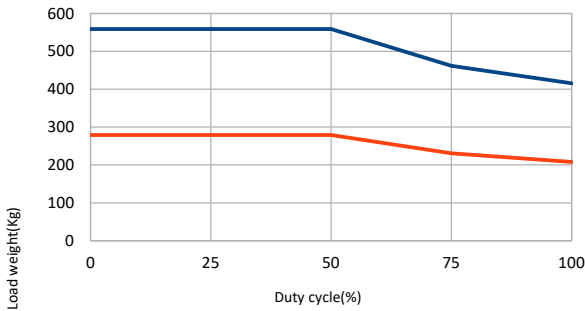
Circuit board without brake : HB510P



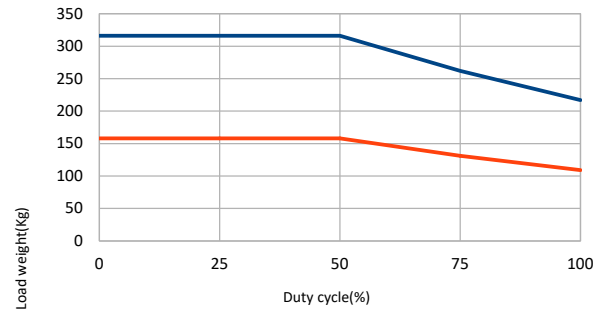
For more informations about version with mechanical brake, contact us.

TRANSFER CAPACITY

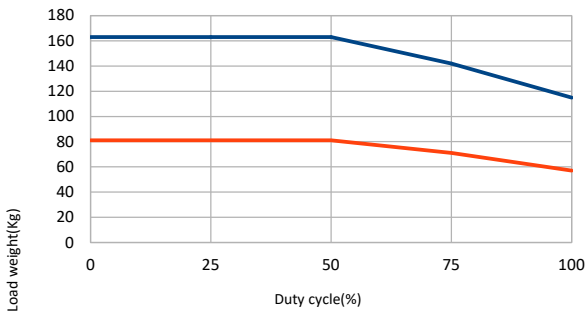
PM500FE 15m/min



PM500FE 25m/min



PM500FE 55m/min



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Shape :



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Pulley :



Ribbed



Grooves

Sleeve :



Tapered



PVC

Lagging :



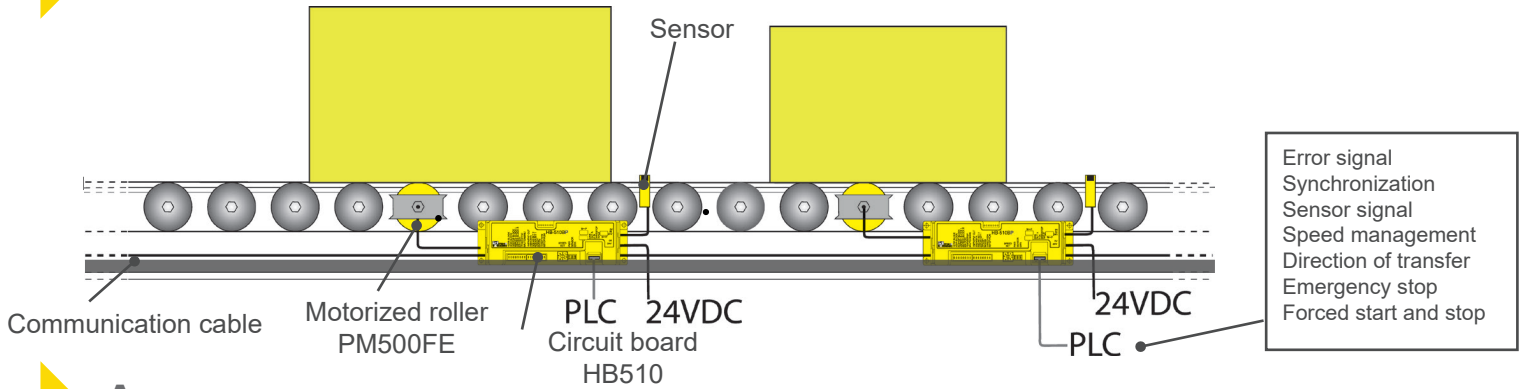
Polyurethane



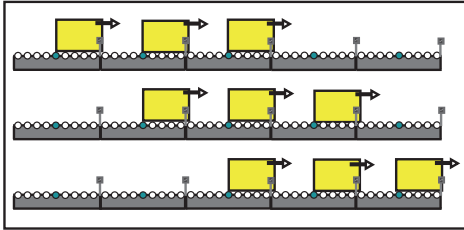
Natural rubber / nitrile

are indicative and could be modified.

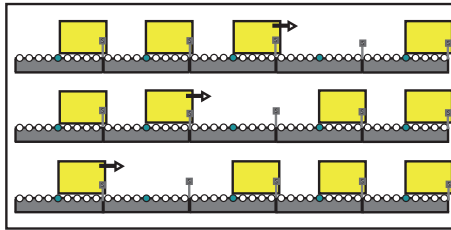
WIRING



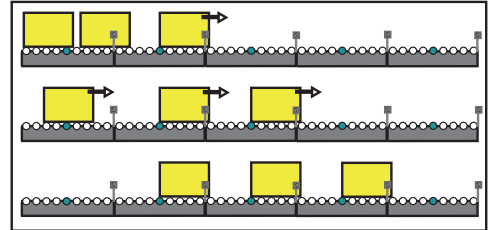
APPLICATIONS



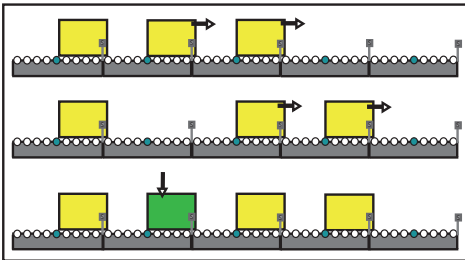
TRAIN - 1 PACKAGE PER ZONE
ALL PACKAGES MOVE AT ONCE



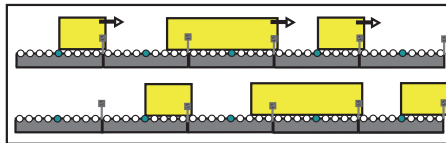
STEPBYSTEP-1 PACKAGE PER ZONE
1 PACKAGE MOVES AT A TIME



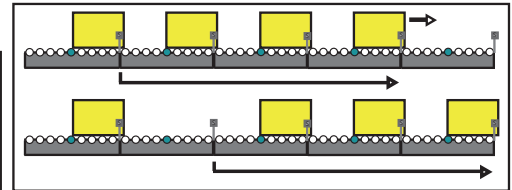
PACKAGE SEPARATION



PACKAGE INSERTION
ZPA STOP



LONG AND SHORT PACKAGES
TRANSPORT



GROUPED EVACUATION

REFERENCES

ORDER PREPARATION



POSTAL TRIAGE



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