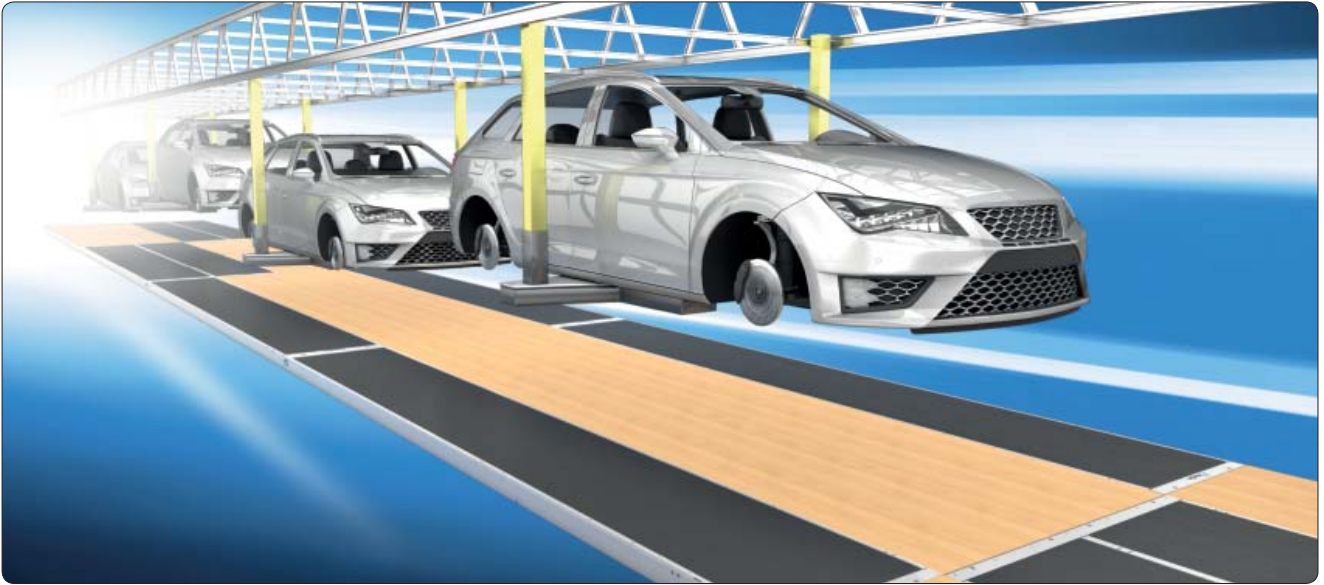


» The People Mover System

English
1/2016

 MayTec®



in combination with suspension track system



in combination with skid tracks



in combination with floor conveyors



installation of conveyors within the platform according to requirements
 replaceable with interchangeable platforms
 required time for replacement: approximately 15 minutes

People Movers

- aluminium base frame
- min. 120 mm total height
- belt options available
- internal drive
- belt speed: 0 - 10 m/min
- optional**
- fire safety specification: B1 compliant version
- electrostatic discharge: ESD compliant version

Interchangeable platform / Stage

- power supply (electricity, light, water)
- lights
- oil drip trays
- servicing and access points
- variable working heights
- optional**
- fire safety specification: B1 compliant version
- electrostatic discharge: ESD compliant version

Project Integration Management

- project implementation
- delivery
- assembly and installation management

Symbols

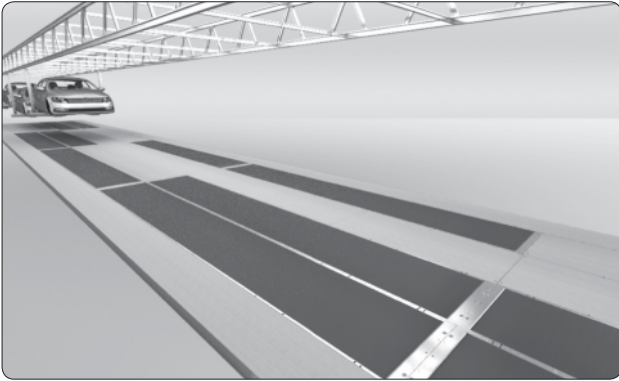


Continuous operation

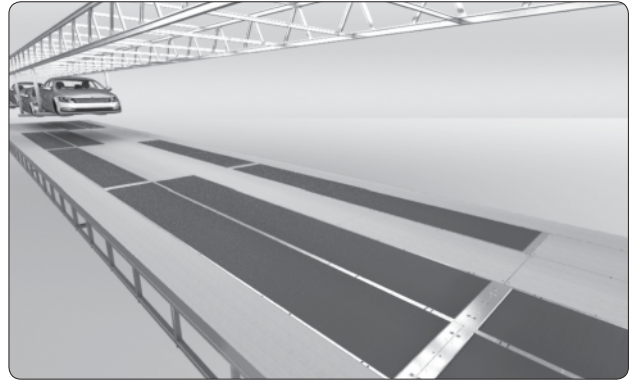


Tandem drive

Variable conveyor setup

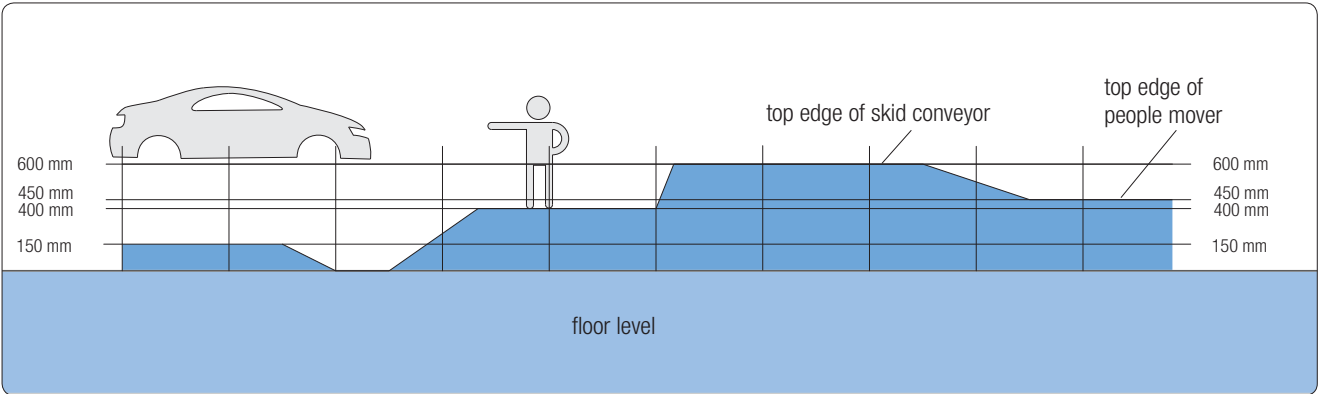


conveyor setup with platform

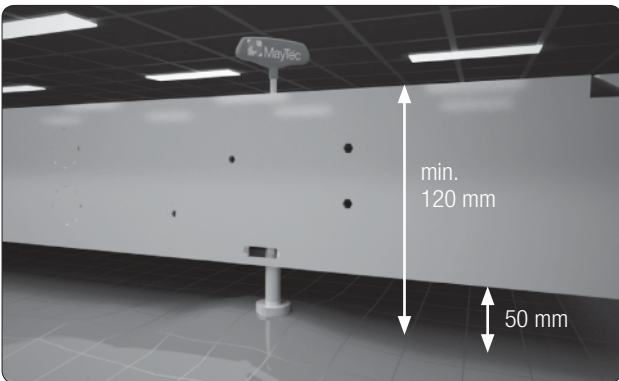


conveyor setup with height adjustable platform

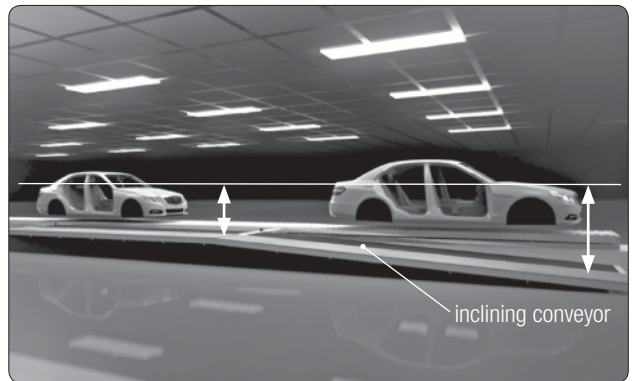
Variable working height



typical skid conveyor configuration



height adjustment for conveyor and platform



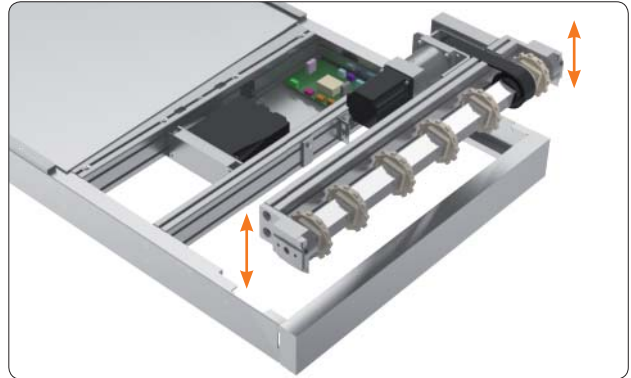
incline and decline (up to 7°) per platform

Roller cover



drive unit with spring loaded PVC clearing strips prevents collection of small parts

Drive unit



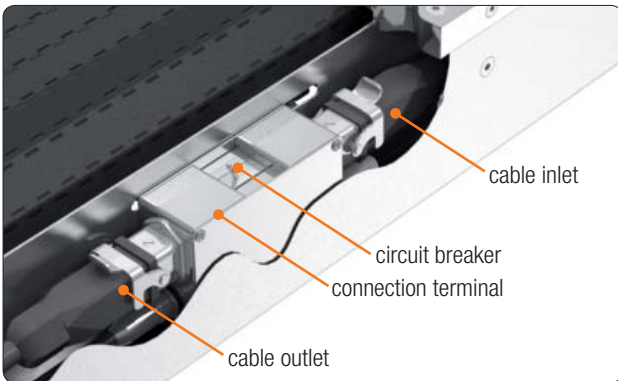
maintenance free drive and idler unit, replaceable from above

Dirt collection tray

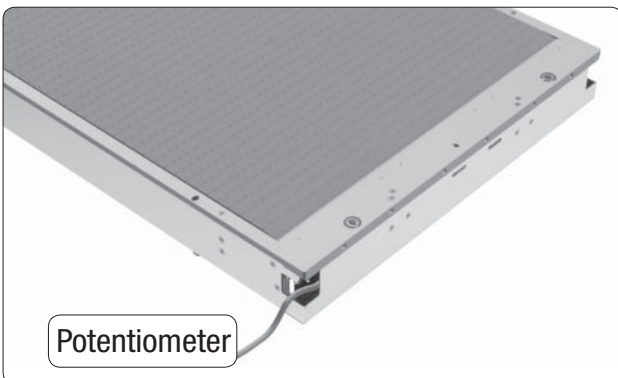


easy cleaning from above

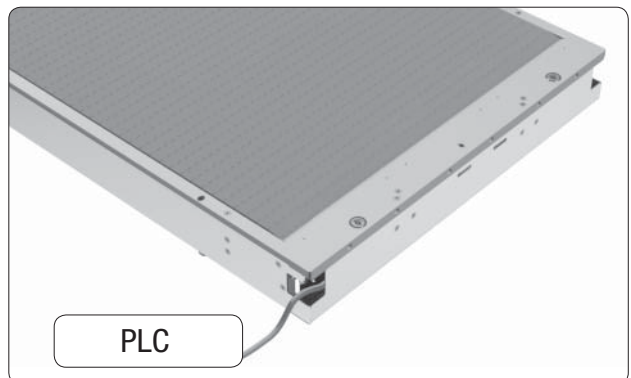
Electrical connection



connection terminal with C4A circuit breaker in each conveyor various connections for subsequent and parallel units

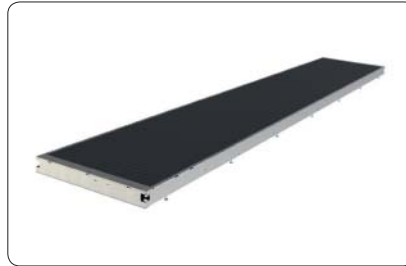


speed adjustment by potentiometer



external speed adjustment

Conveyor

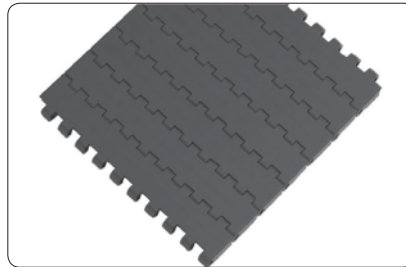


People mover

↗ 5-7

- Type 5721
- Type 5722
- Type 5723

Plastic link chain



Belt type

↗ 10-23

- Habasit M2420 Flat Top 1"
- Habasit M2423 Non Slip 1"
- Forbo Siegling S8-0 FLT
- Uni-chains QNB-C
- Uni-chains QNB-Rough
- System Plast 2250 FT

Interchangeable platform / Stage



Interchangeable platform / Stage

↗ 24-29

- Interchangeable platform
- Stage

Drive

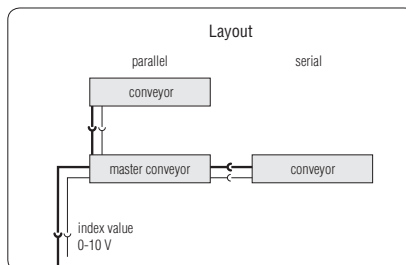


Drive

↗ 30

- AC servo motor with servo drive ①
Type Minas A4
- Planetary gear box ②
Type PLE 80/90

Control



Control methods

↗ 32-34

- servo drive inside the conveyor
 - speed adjustment via potentiometer
 - speed adjustment according to external index value
- servo drive with external control panel
 - speed adjustment according to external index value

People mover

Type 5.721

height: 120 mm

- motor capacity 750 Watt
- internal drive
- stainless steel sliding surface
- 320 kg continuous load



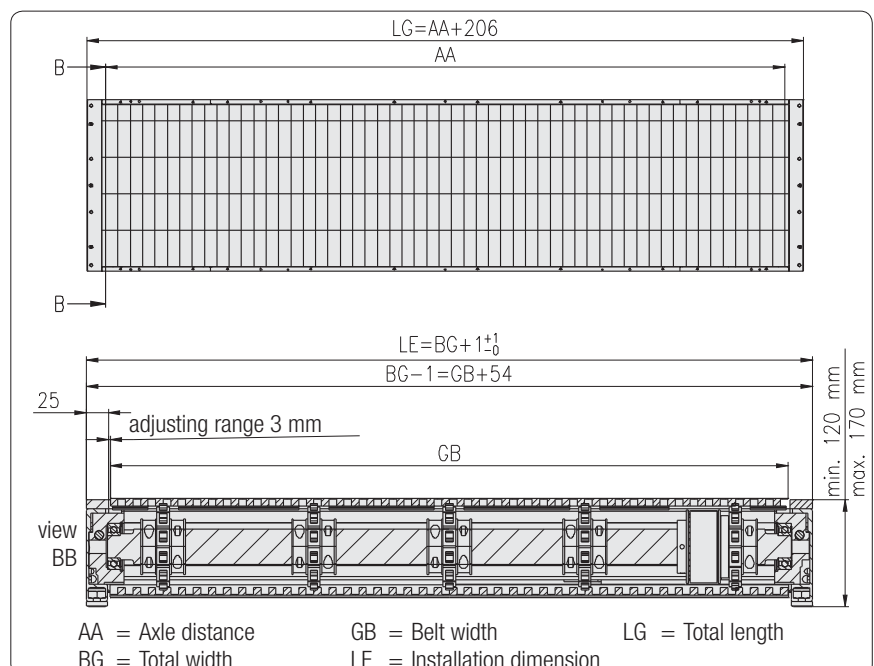
patent No. 102007017628

Implementation

An integrated design (motor, control, drive shaft and bearings) housed within the conveyor frame creates a uniform exterior surface.

High stability and drive capacity combined with low overall height and weight allow for a variety of applications. Stainless steel surfaces cater to abrasive dust environments.

Technical data	
transported weight:	320 kg continuous load (4 people) 480 kg temporary maximum load (6 people)
belt width:	app. 600 - 1,540 mm ↗ 18-19
total width:	app. 650 - 1,600 mm ↗ 18-19
total length:	1,500 - 10,000 mm
base frame:	aluminium extrusion, unanodized
sliding surface:	stainless steel sheet
belt material:	as required ↗ 10-23
motor:	AC servo motor with servo drive
nominal power:	PN 750 W
torque:	nominal 2.4 Nm, peak 7.1 Nm
nominal RPM:	1,100 min ⁻¹
transmission:	planetary gear box PLE 80/90 ↗ 30
ratio:	i40 / i100 ↗ 30
torque:	110 - 120 Nm ↗ 30
speed:	0 - 7 m/min (± 1.5%), acceleration time 2 - 3 sec.
drive orientation:	pulling in direction of travel
control:	servo drive inside the conveyor or external ↗ 32-34 speed adjustment via potentiometer ↗ 32-34 or according to external index value



People mover

Type 5.722

height: 120 mm

- motor capacity 750 Watt
- internal drive
- PVC sliding surface
- 600 kg continuous load



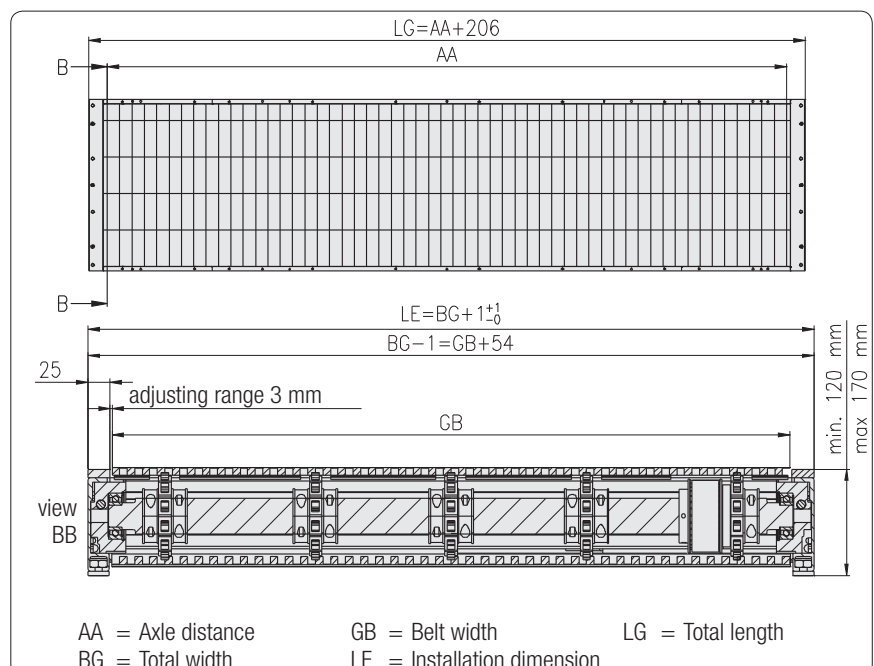
patent No. 102007017628

Implementation

An integrated design (motor, control, drive shaft and bearings) housed within the conveyor frame creates a uniform exterior surface.

High stability and drive capacity combined with low overall height and weight allow for a variety of applications. The PVC sliding surface reduces the friction, which allows to transport high loads at a reduced drive power.

Technical data	
transported weight:	600 kg continuous load 800 kg temporary maximum load
belt width:	app. 600 - 1,540 mm ↗ 18-19
total width:	app. 650 - 1,600 mm ↗ 18-19
total length:	1,500 - 10,000 mm
base frame:	aluminium extrusion, unanodized
sliding surface:	PVC panel
belt material:	as required ↗ 10-23
motor:	AC servo motor with servo drive
nominal power:	PN 750 W
torque:	nominal 2.4 Nm, peak 7.1 Nm
nominal RPM:	1,100 min ⁻¹
transmission:	planetary gear box PLE 80/90 ↗ 30
ratio:	i40 / i100 ↗ 30
torque:	110 - 120 Nm ↗ 30
speed:	0 - 7 m/min (± 1.5%), acceleration time 2 - 3 sec.
drive orientation:	pulling in direction of travel
control:	servo drive inside the conveyor or external ↗ 32-34 speed adjustment via potentiometer ↗ 32-34 or according to external index value



People mover

Type 5.723

height: 150 mm

- motor capacity 2 × 750 Watt
- internal drive
- tandem drive
- PVC sliding surface
- 1.200 kg continuous load



patent No. 102007017628

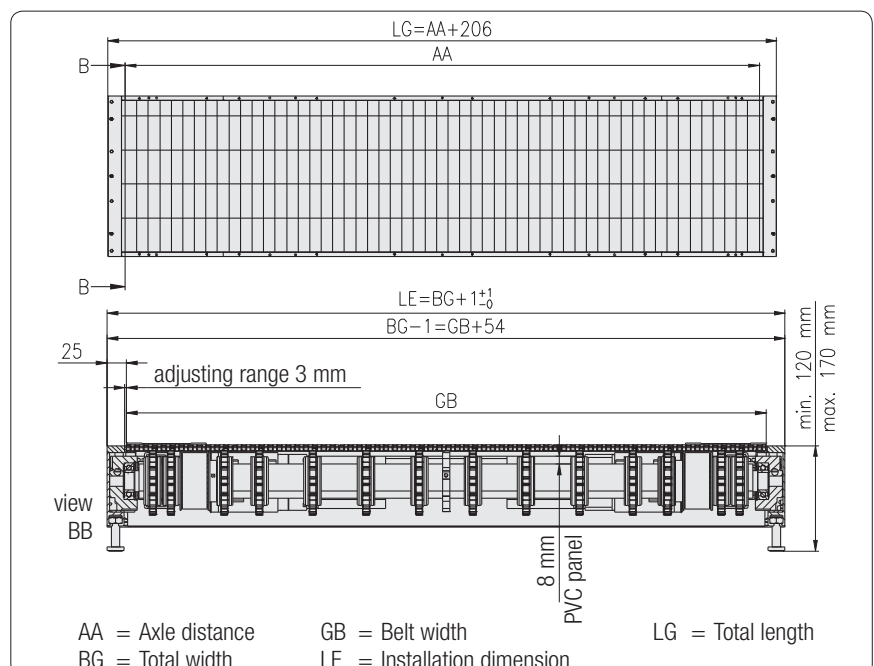


Implementation

An integrated design (motor, control, drive shaft and bearings) housed within the conveyor frame creates a uniform exterior surface.

High stability and drive capacity combined with low overall height and weight allow for a variety of applications. The PVC sliding surface reduces the friction, which allows to transport high loads at a reduced drive power.

Technical data	
transported weight:	1,200 kg continuous load (15 people) 1,500 kg temporary maximum load
belt width:	app. 600 - 1,540 mm ↗ 18-19
total width:	app. 650 - 1,600 mm ↗ 18-19
total length:	1,500 - 10,000 mm
base frame:	aluminium extrusion, unanodized
sliding surface:	PVC panel
belt material:	as required ↗ 10-23
motor:	2 × AC servo motor with servo drive
nominal power:	2 × PN 750 W = 1,500 W
torque:	nominal 4.8 Nm, peak 14 Nm
nominal RPM:	1,100 min ⁻¹
transmission:	2 × planetary gear box PLE 80/90 ↗ 30
ratio:	i40 / i100 ↗ 30
torque:	245 - 320 Nm ↗ 30
speed:	0 - 7 m/min (± 1.5%), acceleration time 2 - 3 sec.
drive orientation:	pulling in direction of travel
control:	servo drive inside the conveyor or external ↗ 32-34 speed adjustment via potentiometer ↗ 32-34 or according to external index value



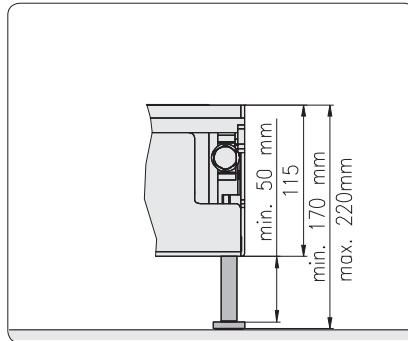
Base frame



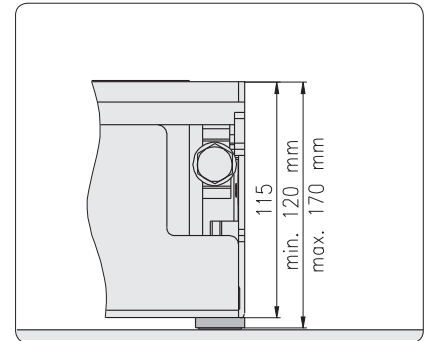
Assembly

MayTec custom extrusions provide high longitudinal and lateral stability

Height adjustability



Type 1

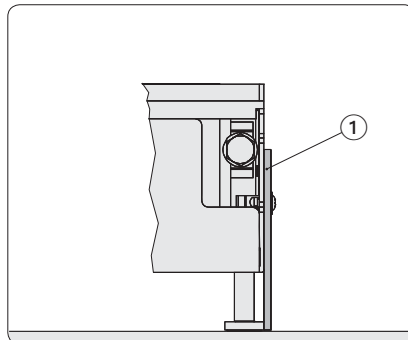


Type 2

Application

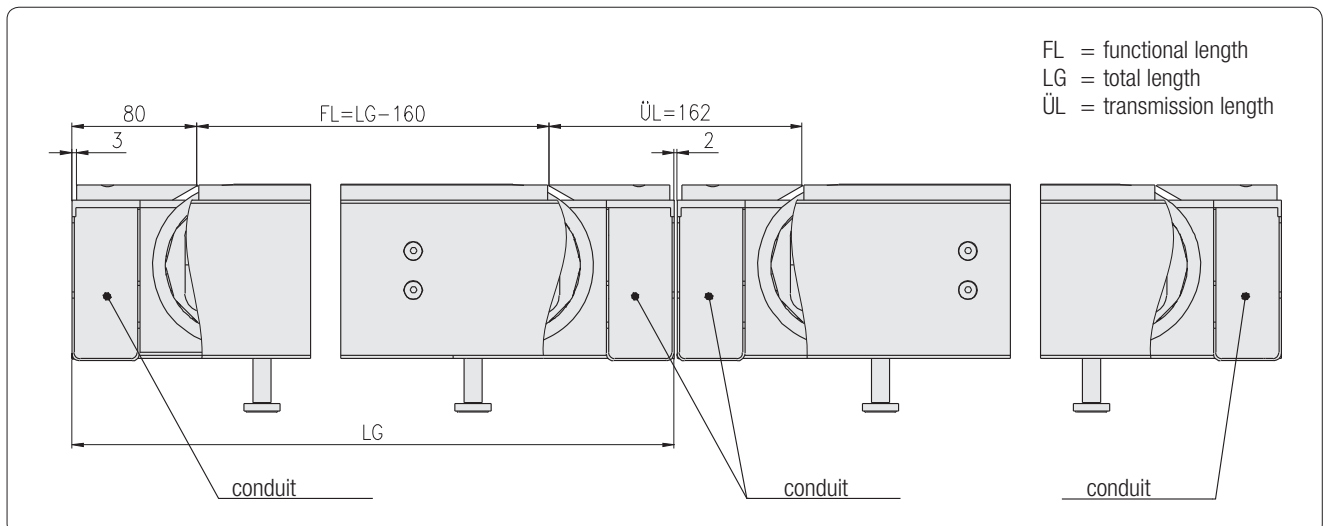
Accessible from top with socket wrench
The system allows a fast and easy adjustment to the floor conditions.

Side cover



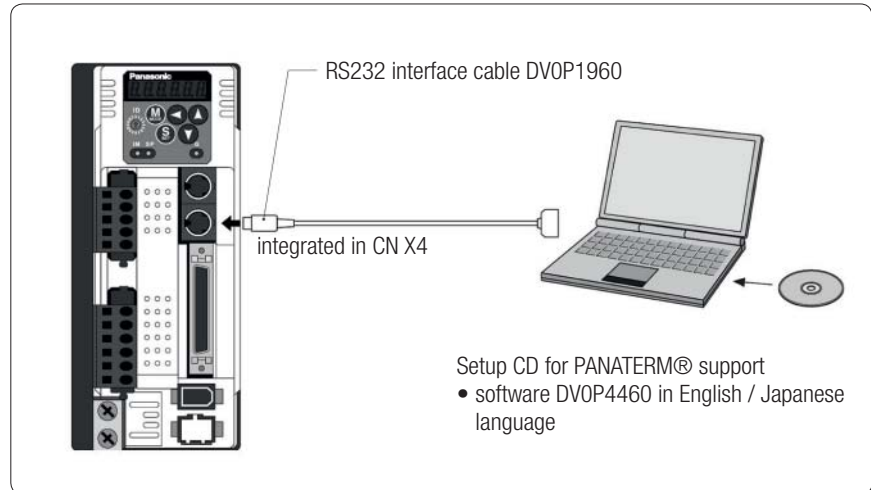
① adjustable cover strip
side cover can be adjusted to compensate for unevenness of flooring

Functional lengths



Servo drive Type Minas A4

- RS232 interface cable
- PANATERM® software



Comments

The RS232 interface cable is integrated with the cable harness located at the conduit end of the drive. PANATERM® software is supplied on a data storage device.

Error codes

#	Description	#	Description
11	control undervoltage	41 *	absolute value - overflow error
12	overvoltage error	42	absolute revolution speed exceeded
13	mains undervoltage	44 *	absolute revolution counter
14 *	over current protection	45 *	multiple revolution counter
15 *	temperatur exceedence	47 *	absolute status error
16	capacity overload	48 *	encoder z-phase error
18 *	overload on ballast resistor	49 *	encoder CS signal error
21 *	encoder communication error	50 *	external scale of length status error 0
23 *	encoder data error	51 *	external scale of length status error 1
24	position discrepancy	52 *	external scale of length status error 2
25 *	position discrepancy of external encoder	53 *	external scale of length status error 3
26	RPM exceedence	54 *	external scale of length status error 4
27	electronic gear box	55 *	external scale of length status error 5
28 *	data error from external locator	65	torque limit for anti-clockwise rotation
29	overflow of pulse error counter	66	torque limit for anti-clockwise rotation
34	software limitation	95 *	automatic motor identification
35 *	data transfer error from external scale of length		other
36 *	EEPROM parameter error	No.	other error
37 *	EEPROM test code error		
38	limit switch inputs		
39	discrepancy to index value		
40	absolute value - system failure		

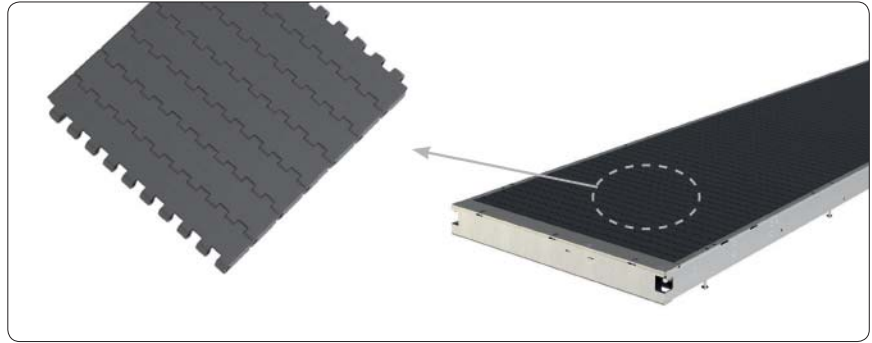
Comments

Error shutdowns marked with *, cannot be deleted by A-CLR.
Switch off electricity, eliminate cause of failure, then switch electricity back on.

The following error codes are not listed in the error log:

#	Description
11	control and undervoltage
13	mains undervoltage
36	EEPROM parameter error
37	EEPROM test code error
38	limit switch inputs
95	automatic motor identification

Plastic link chain



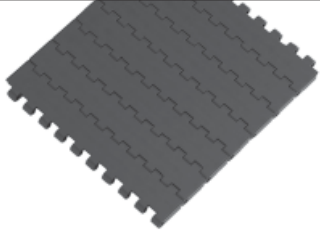
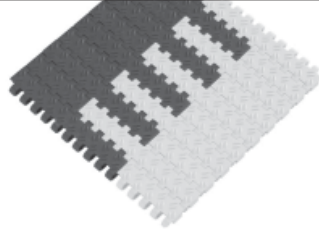

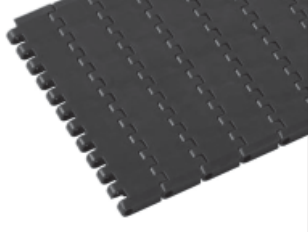


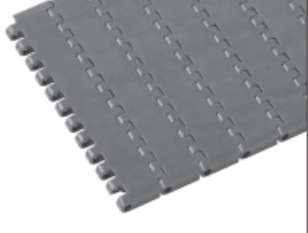
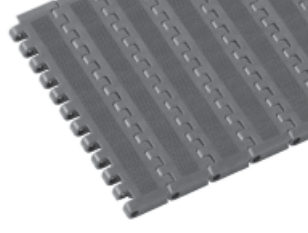

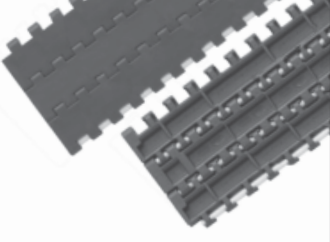


Advantages

1. Non-slip traction created by pinion drive
2. Chain tensioning set at minimal levels
3. Trouble free and low maintenance plastic link chain belt ensures tracking
4. Plastic chain links can be used through a wide temperature range
5. No special tools required for assembly of endless plastic chain link belts
6. Damaged plastic links are quickly and easily replaced
7. Minimal spare parts inventory. Plastic links generally replaced in short pieces
8. High lateral stability
9. Easy cleaning
10. Good sliding value with low friction
11. Scuff and scratch resistant materials
12. Fire safety specification: B1 compliant version
13. ESD: Electrostatic discharge compliant version

↔ 20

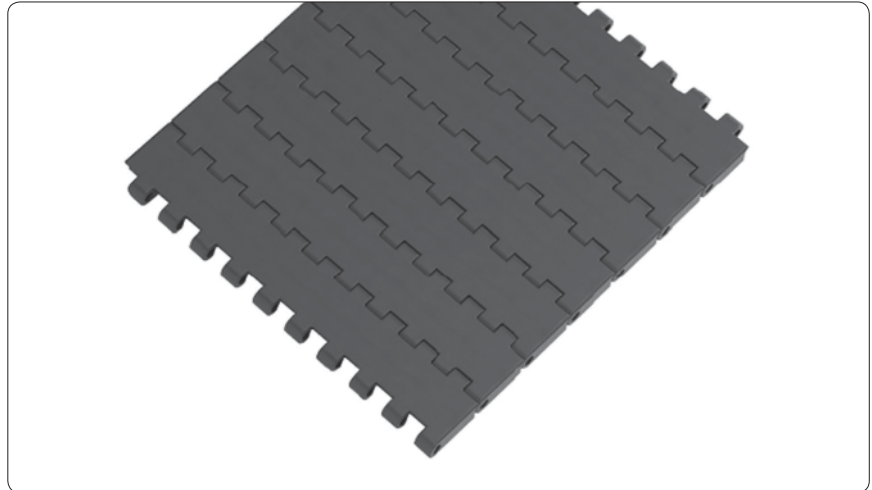
↔ 22 - 23

Producer	Belt surface Type	Anti-slip specification class		
		< R9	R9	R10
Habasit	Belt surface Type		smooth M2420 Flat Top 1"  12	plate with lug pattern M2423 Non Slip 1"  13
				
Forbo Siegling	Belt surface Type	smooth S8-0 FLT  14		
				
uni-chains	Belt surface Type		smooth QNB-C  15	rough surface QNB-Rough  16
				
Forbo Siegling	Belt surface Type	smooth 2250 FT  17		
				

Habasit

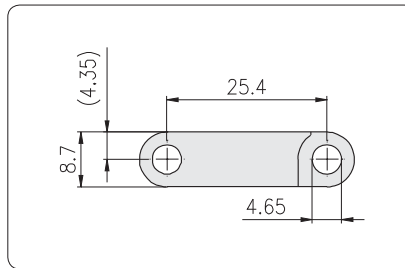
Type M2420 Flat Top 1"

- smooth plastic link chain surface



closed, smooth plastic link chain surface

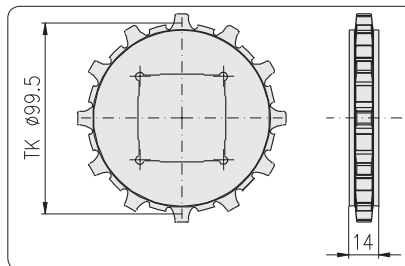
Chain module



Technical data

chain pitch:	1" (25.4 mm)
chain thickness:	8.7 mm
plastic link chain surface:	closed, smooth
anti-slip property:	R9 according DIN 51130
standard widths:	➔ 18 - 19

Sprocket



Technical data

number of teeth:	12 Z
pitch circle Ø:	99.5 mm
hub width:	14 mm
suitable for plastic link chain:	Type M2420 Flat Top 1"
chain pitch:	1" (25.4 mm)
material:	PA (Polyacetal) natural

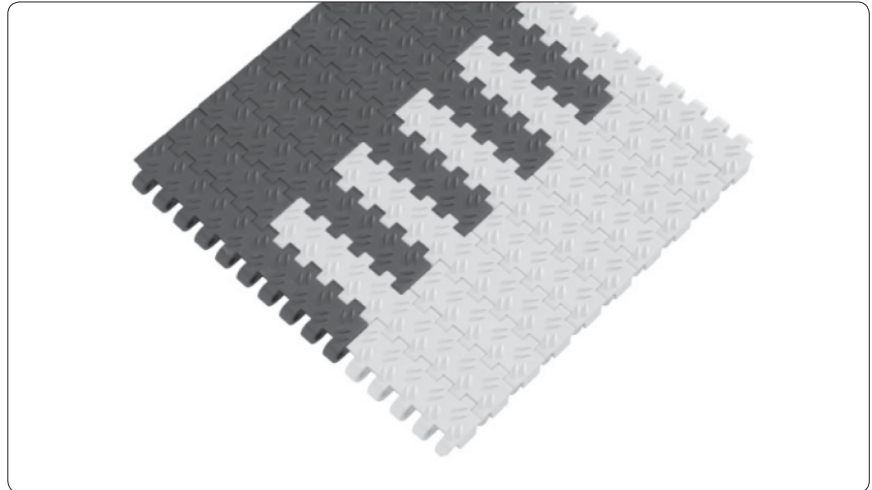
Habasit product range Type M2420 Flat Top 1"

Fire safety specification old	Fire safety specification new		Electrical conductivity	Material	Colour		
	B _{fl} - s1	C _{fl} - s1			black	grey	dark grey
B1	x		0% ESD	PP POM	x x	x	x
	x		min. 25% ESD	PP POM	x x	x	x
	x		min. 33% ESD	PP POM	x x	x	x
	x		100% ESD	PP POM	x x	x	x
B2			0% ESD	PP POM	x x	x x	x x
			min. 25% ESD	PP POM	x x	x x	x x
			min. 33% ESD	PP POM	x x	x x	x x
			100% ESD	PP POM	x x	x x	x x

Habasit

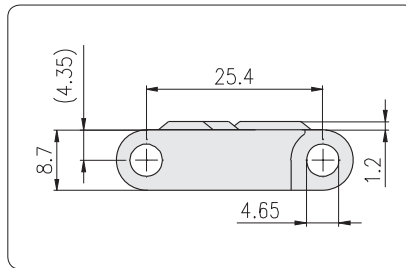
Type M2423 Non Slip 1"

- plastic link chain surface with lug pattern



plastic link chain surface closed with lug pattern

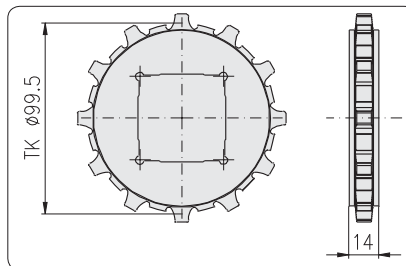
Chain module



Technical data

chain pitch:	1" (25.4 mm)
chain thickness:	8.7 + 1.2 mm
plastic link chain surface:	closed, with lug pattern
anti-slip property:	R10 according DIN 51130
standard widths:	18 - 19

Sprocket



Technical data

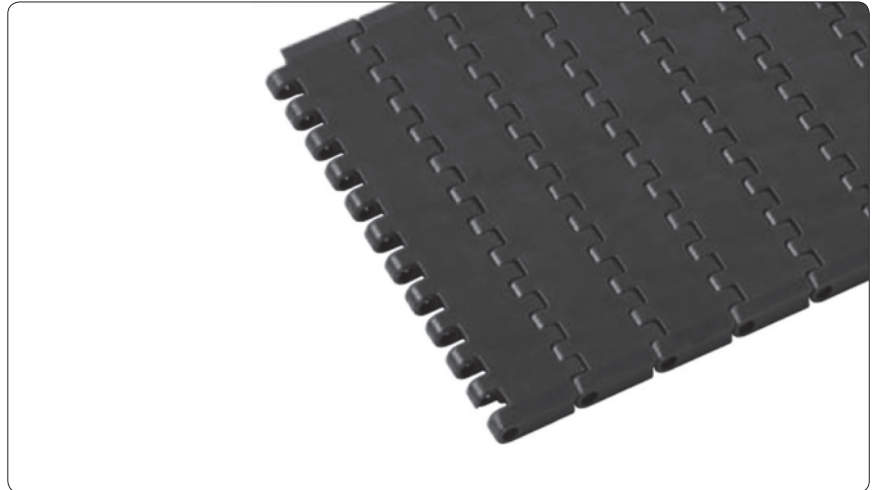
number of teeth:	12 Z
pitch circle Ø:	99.5 mm
hub width:	14 mm
suitable for plastic link chain:	Type M2423 Non Slip 1"
chain pitch:	1" (25.4 mm)
material:	PA (Polyacetal) natural

Habasit product range Type M2423 Non Slip 1"

Fire safety specification old	Fire safety specification new		Electrical conductivity	Material	Colour		
	B _{fl} - s1	C _{fl} - s1			black	grey	dark grey
B1	x		0% ESD	PP POM	x x		
	x		min. 25% ESD	PP POM	x x		
	x		min. 33% ESD	PP POM	x x		
	x		100% ESD	PP POM	x x		
B2			0% ESD	PP POM	x x		
			min. 25% ESD	PP POM	x x		
			min. 33% ESD	PP POM	x x		
			100% ESD	PP POM	x x		

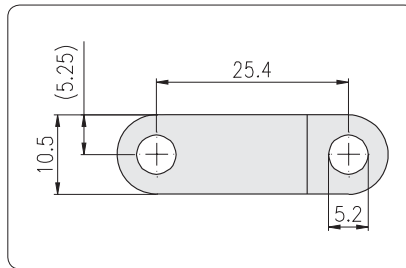
Forbo Siegling Type S8-0 FLT

- smooth plastic link chain surface




closed, smooth plastic link chain surface

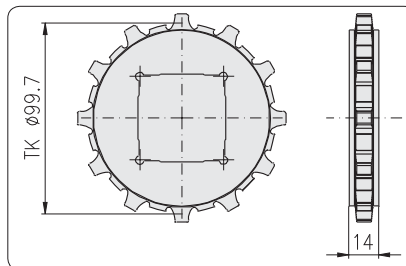
Chain module



Technical data

chain pitch: 1" (25.4 mm)
 chain thickness: 10.5 mm
 plastic link chain surface: closed, smooth
 anti-slip property:
 standard widths:  18 - 19

Sprocket



Technical data

number of teeth: 12 Z
 pitch circle Ø: 99.7 mm
 hub width: 14 mm
 suitable for plastic link chain: Type S8-0 FLT
 chain pitch: 1" (25.4 mm)
 material: PA (Polyacetal) natural

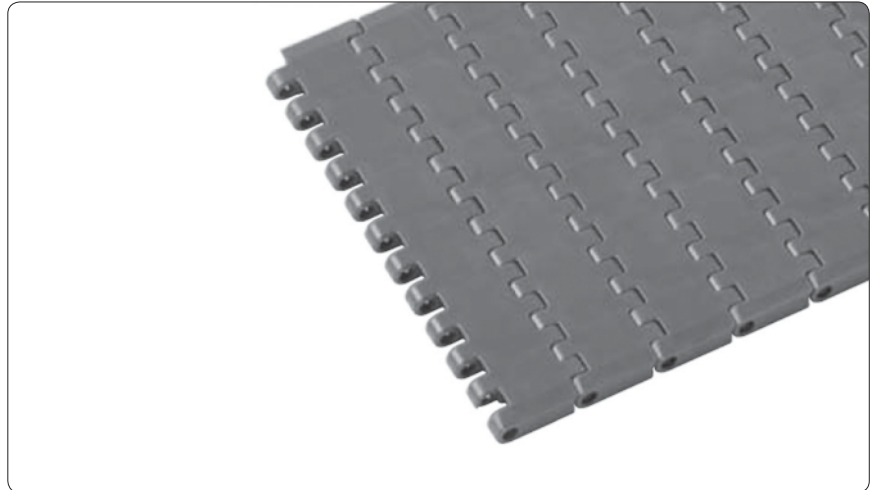
Forbo Siegling product range Type S8-0 FLT

Fire safety specification old	Fire safety specification new		Electrical conductivity	Material	Colour		
	B _{fl} - s1	C _{fl} - s1			black	grey	dark grey
B1		x	0% ESD	PP POM	x		
		x	min. 25% ESD	PP POM	x		
		x	min. 33% ESD	PP POM	x		
		x	100% ESD	PP POM	x		
B2			0% ESD	PP POM	x		
			min. 25% ESD	PP POM	x		
			min. 33% ESD	PP POM	x		
			100% ESD	PP POM	x		

uni-chains

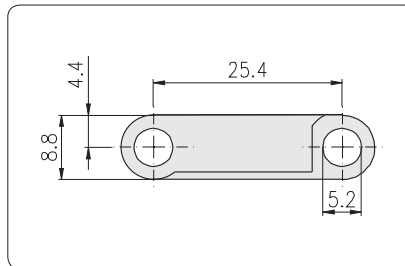
Type QNB-C

- smooth plastic link chain surface



closed, smooth plastic link chain surface

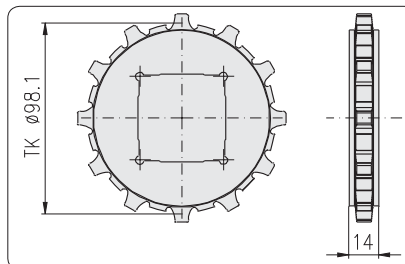
Chain module



Technical data

chain pitch:	1" (25.4 mm)
chain thickness:	8.8 mm
plastic link chain surface:	closed, smooth
anti-slip property:	R9 according DIN 51130
standard widths:	➔ 18 - 19

Sprocket



Technical data

number of teeth:	12 Z
pitch circle Ø:	98.1 mm
hub width:	14 mm
suitable for plastic link chain:	Type QNB-C
chain pitch:	1" (25.4 mm)
material:	PA (Polyacetal) natural

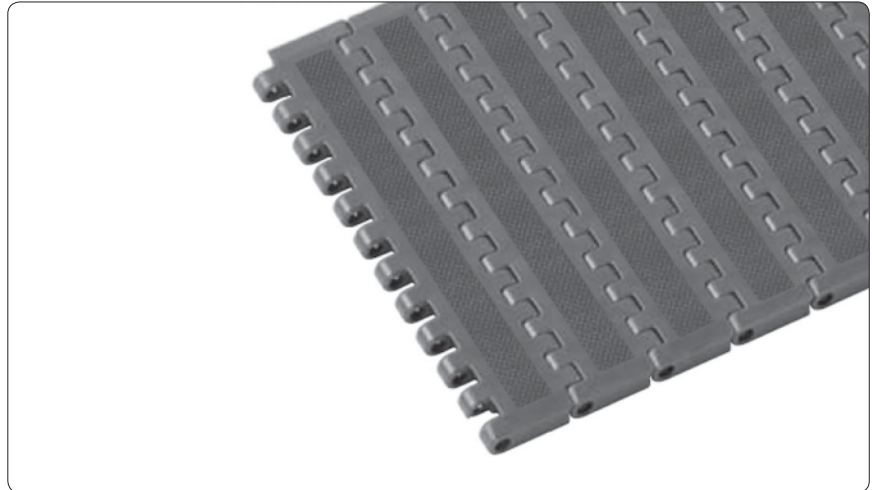
uni-chains product range Type QNB-C

	Fire safety specification		Electrical conductivity	Material	Colour			
	old	new			black	grey	dark grey	
		B _{fl} - s1	C _{fl} - s1					
B1				0% ESD	PP POM	x		
				min. 25% ESD	PP POM	x		
				min. 33% ESD	PP POM	x		
				100% ESD	PP POM	x		
B2				0% ESD	PP POM	x		
				min. 25% ESD	PP POM	x		
				min. 33% ESD	PP POM	x		
				100% ESD	PP POM	x		

uni-chains

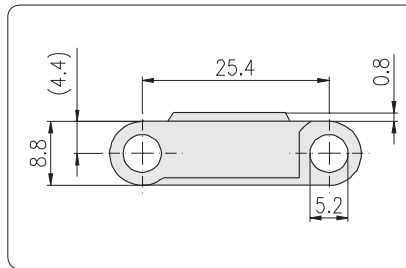
Type QNB-Rough

- plastic link chain surface with rough surface



plastic link chain closed with rough surface

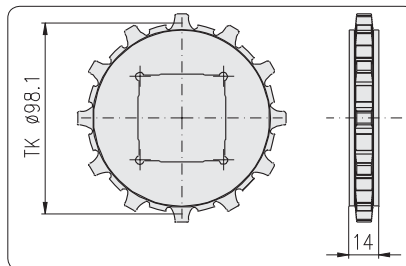
Chain module



Technical data

chain pitch:	1" (25.4 mm)
chain thickness:	9.6 mm
plastic link chain surface:	closed, with rough surface
anti-slip property:	R10 according DIN 51130
standard widths:	18 - 19

Sprocket



Technical data

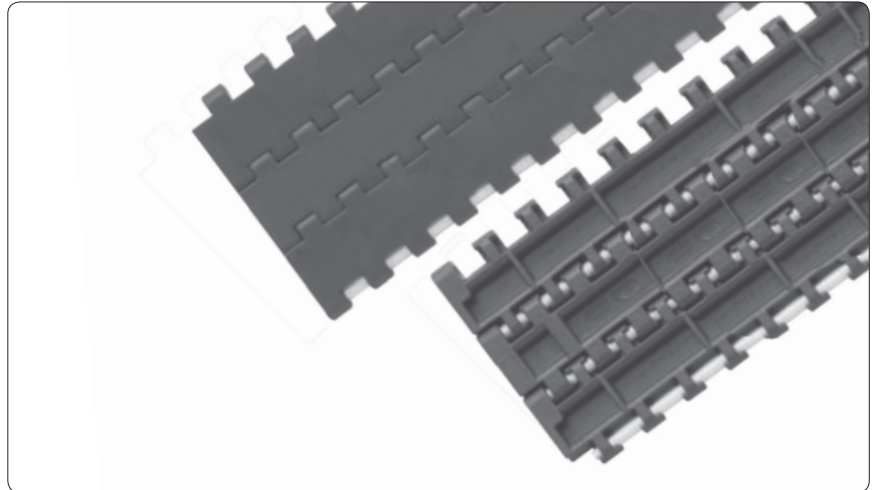
number of teeth:	12 Z
pitch circle Ø:	98.1 mm
hub width:	14 mm
suitable for plastic link chain:	Type QNB-ough
chain pitch:	1" (25.4 mm)
material:	PA (Polyacetal) natural

uni-chains product range Type QNB-Rough

Fire safety specification old	Fire safety specification new		Electrical conductivity	Material	Colour		
	B _{fl} - s1	C _{fl} - s1			black	grey	dark grey
B1			0% ESD	PP POM	x		
			min. 25% ESD	PP POM	x		
			min. 33% ESD	PP POM	x		
			100% ESD	PP POM	x		
B2			0% ESD	PP POM	x		
			min. 25% ESD	PP POM	x		
			min. 33% ESD	PP POM	x		
			100% ESD	PP POM	x		

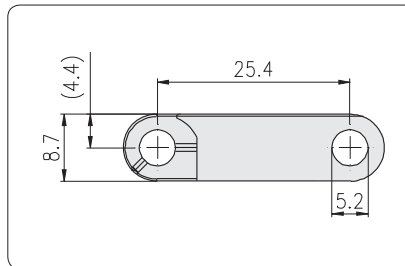
System Plast Type 2250 FT

- smooth plastic link chain surface




closed, smooth plastic link chain surface

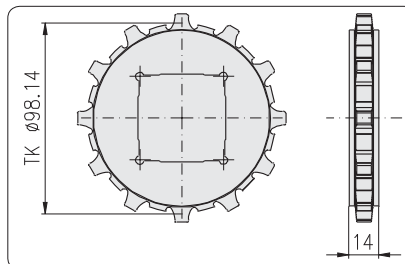
Chain module



Technical data

chain pitch: 1" (25.4 mm)
 chain thickness: 8.7 mm
 plastic link chain surface: closed, smooth
 anti-slip property:
 standard widths:  18 - 19

Sprocket



Technical data

number of teeth: 12 Z
 pitch circle Ø: 98.14 mm
 hub width: 14 mm
 suitable for plastic link chain: Type 2253 FT
 chain pitch: 1" (25.4 mm)
 material: PA (Polyacetal) natural

System Plast product range Type 2250 FT

	Fire safety specification		Electrical conductivity	Material	Colour		
	old	new			black	grey	dark grey
		B _{fl} - s1 C _{fl} - s1					
B1		x	0% ESD	PP POM	x		
		x	min. 25% ESD	PP POM	x		
		x	min. 33% ESD	PP POM	x		
		x	100% ESD	PP POM	x		
B2			0% ESD	PP POM	x		
			min. 25% ESD	PP POM	x		
			min. 33% ESD	PP POM	x		
			100% ESD	PP POM	x		

Conveyor width for plastic link chain type

ESD	
w/o	with

Habasit M2420 Flat Top 1" M2423 Non Slip 1"		Forbo Siegling S8-0 FLT		uni-chains QNB-C QNB-Rough		System Plast 2250 FT		length (mm) max.
width (mm) belt		width (mm) conveyor 1)		width (mm) belt		width (mm) conveyor 1)		
595	649	610	664	607	661	595	649	10,000
680	734	686	740	683	737	680	734	
765	819	762	816	759	813	765	819	
850	904	838	892	835	889	850	904	
935	989	914	968	911	965	935	989	
1,020	1,074	991	1,045	988	1,042	1,020	1,074	6,000
1,105	1,159	1,067	1,121	1,064	1,118	1,105	1,159	
1,190	1,244	1,143	1,197	1,140	1,194	1,190	1,244	
1,275	1,329	1,219	1,273	1,216	1,270	1,275	1,329	
1,360	1,414	1,295	1,349	1,292	1,346	1,360	1,414	
1,445	1,499	1,371	1,425	1,368	1,422	1,445	1,499	5,000
1,530	1,584	1,447	1,501	1,444	1,498	1,530	1,584	

1) conveyor width = belt width + 54 mm

Width of chain module

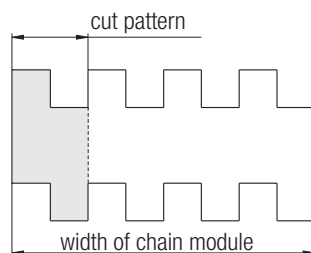
short chain module

long chain module

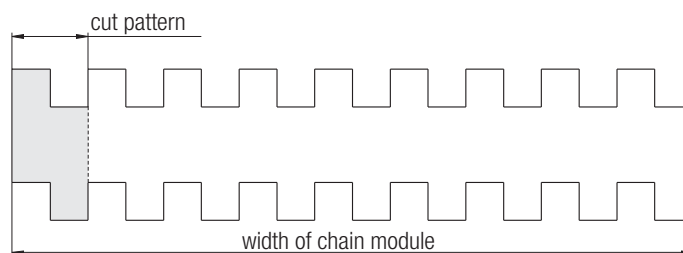
cut pattern

85 mm	114.3 mm	76.2 mm	85 mm
170 mm	228.6 mm	152.4 mm	170 mm
17 mm	12.66 mm	12.66 mm	17 mm

short chain module



long chain module



Conveyor width for plastic link chain type

ESD	
w/o	with

Fire safety class B1

Habasit M2420 Flat Top 1" M2423 Non Slip 1"		Forbo Siegling S8-0 FLT		uni-chains QNB-C QNB-Rough		System Plast 2250 FT		length (mm) max.
width (mm)		width (mm)		width (mm)		width (mm)		
belt	conveyor 1)	belt	conveyor 1)	belt	conveyor 1)	belt	conveyor 1)	
598	652	613	667	610	664	600	654	10,000
683	737	689	743	686	740	686	740	
768	822	765	819	762	816	772	826	
854	908	842	896	839	893	858	912	
939	993	918	972	915	969	943	997	
1,024	1,078	995	1,049	992	1,046	1,029	1,083	6,000
1,110	1,164	1,072	1,126	1,069	1,123	1,115	1,169	
1,195	1,249	1,148	1,202	1,145	1,199	1,201	1,255	
1,280	1,334	1,224	1,278	1,221	1,275	1,286	1,340	
1,366	1,420	1,300	1,354	1,297	1,351	1,372	1,426	
1,451	1,505	1,377	1,431	1,374	1,428	1,458	1,512	5,000
1,536	1,590	1,453	1,507	1,450	1,504	1,544	1,598	

1) conveyor width = belt width + 54 mm






Anti-slip specification class

According to DIN 51130 there are five different anti-slip specification classes R9 to R13.

Higher classes represent higher anti-slip property.

Slip classes are specified by mounting the material to the face of a ramp, oil is then poured over the surface and a subject walks up the ramp. The incline is gradually increased until slipping occurs.

The table below determines the anti-slip class.

Anti-slip specification class	Coefficient of friction	Angle of incline	Illustration
R9	low coefficient of friction	> 6° - 10°	
R10	normal coefficient of friction	> 10° - 19°	
R11	increased coefficient of friction	> 19° - 27°	
R12	high coefficient of friction	> 27° - 35°	
R13	very high coefficient of friction	> 35°	

Fire safety classes according DIN 4102-1

Fire safety class A

Materials of fire safety class A must be non-combustible.

Materials like: concrete, brickwork, soil (sand, gravel, etc.) cement, mortar, stone, architectural ceramics, glass, foam glass, cast iron, steel and aluminium belong to fire safety class A.

Fire safety class B

Flammable

- **Fire safety class B1**

Flame resistant materials belong to fire safety class B1.

Materials such as flame retardant wood and rigid foam plastic belong to this fire safety class.

Fire must extinguish once the fire source has been removed

- **Fire safety class B2**

Normally flammable materials belong to fire safety class B2.

Materials like wooden parts and reconstituted timber products with a thickness > 2 mm.

- **Fire safety class B3**

Easily flammable materials belong to fire safety class B3.

Materials like wooden parts and reconstituted timber products with a thickness < 2 mm.

Cardboard, straw or paper may not be used.

Requirements for automotive applications

Fire safety class B1

In order to comply with fire safety class B1, plastic link chain modules are manufactured from flame resistant materials.

The plastic link chains are assembled from injection molded modules secured by either plastic or metal rods.

Fire safety class "new" according DIN EN 13501-1 for floorings

naming by construction supervision	Fire safety class			
	"old" DIN 4102-1	"new" DIN EN 13501-1	critical thermal flow kW/m ²	no smoke
flame resistant floorings	B1	B _{fl} - s1	> 8	x
		C _{fl} - s1	4.5 to 7.9	x
normally flammable floorings	B2	A2 _{fl} - s2		
		B _{fl} - s2		
		C _{fl} - s2		
		D _{fl} - s1		x
		D _{fl} - s2		
easily flammable floorings	B3	E _{fl}		
		F _{fl}		

ESD version

What is ESD?

Electro Static Discharge

Transition of electrical charges between bodies with different electrostatic potentials. Typically caused by direct contact or induced by an electrostatic field.

How is ESD created?

Almost all equipment, machines and vehicles are designed using electronic components, switches and control elements. The micro electronic components which make up these systems are sensitive to electronic spikes and unexpected voltages.

An electrical charge is created when differing materials rub against, or come in contact with each other. For example, if a person wearing clothing made from different types of materials walks along an electrically isolated surface, a charge will develop on the surface of their body. If this charged surface (the persons skin in this case) is then earthed, a discharge will occur from the person to the earthed surface.

Electronic components can be easily damaged by such a discharge as high voltages are created.

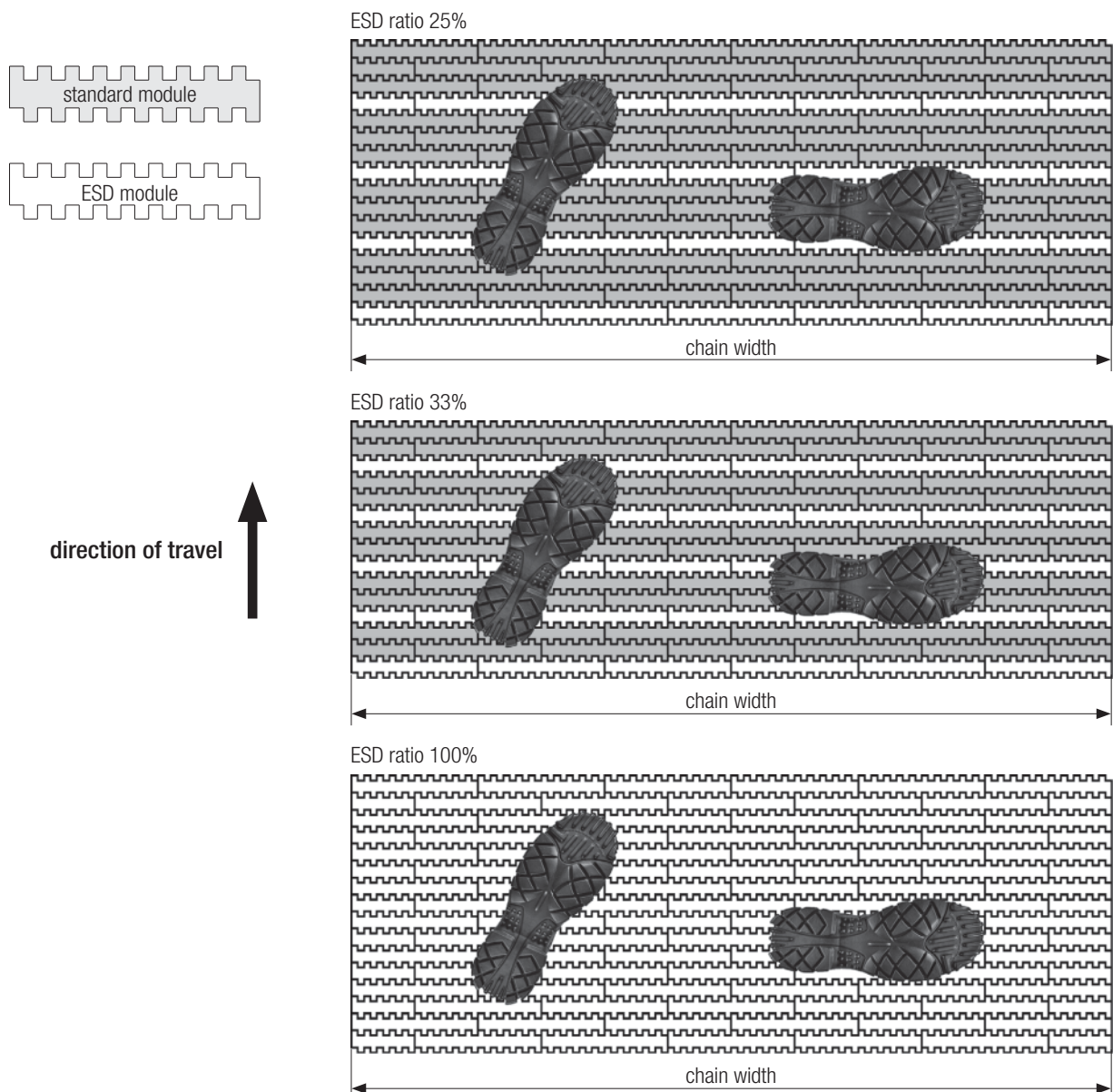
Plastic module patterns

Alternate pattern with ESD modules (colour white)

Assembly in section patterns

Ratio of the ESD modules 25% to 100% depending on the assembly pattern

Example: pattern for chain width 1,020 mm

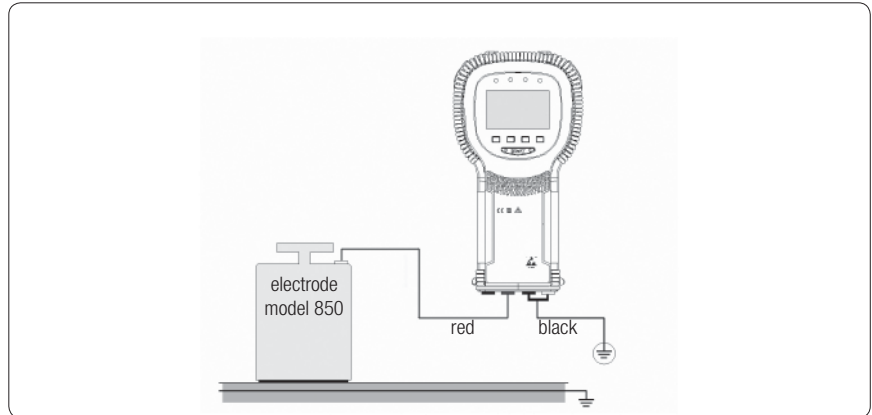


ESD version

Measuring method according to:
DIN EN 61340

1. Electrical grounding resistance

target value: $< 1 \times 10^9 \Omega$



measuring method with analyser Metriso 2000 with electrode model 850



analyser electrode model 850

dimensions:

Ø contact rubber 63.5 mm / height 120 mm

Engineering standards

DIN EN 61340-4-1

DIN EN 61340-5-1

DIN EN 61340-2-3

2. Systematic resistance

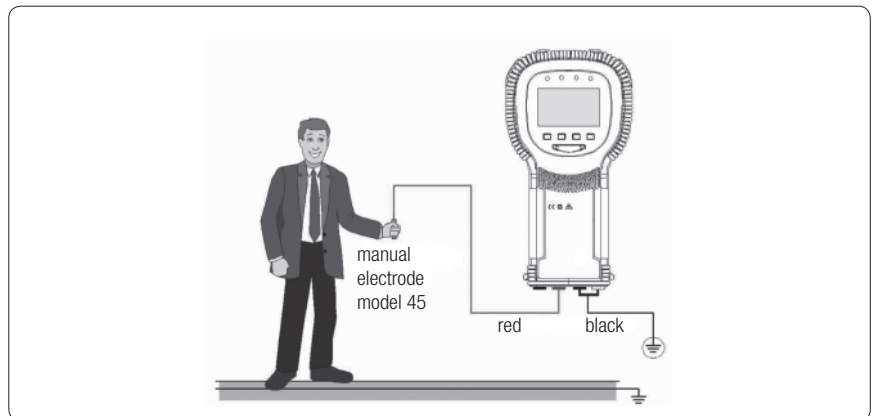
person - shoe - flooring

target value:

$7,5 \times 10^5 \Omega$ to $3,5 \times 10^7 \Omega$

3. Persons charging - walking test

target value: $< 100 \text{ V}$



measuring method with analyser Metriso 2000 with manual electrode model 45



manual electrode model 45

dimensions:

Ø 25 mm / length 120 mm

Engineering standards

DIN EN 61340-4-5

DIN EN 61340-5-1

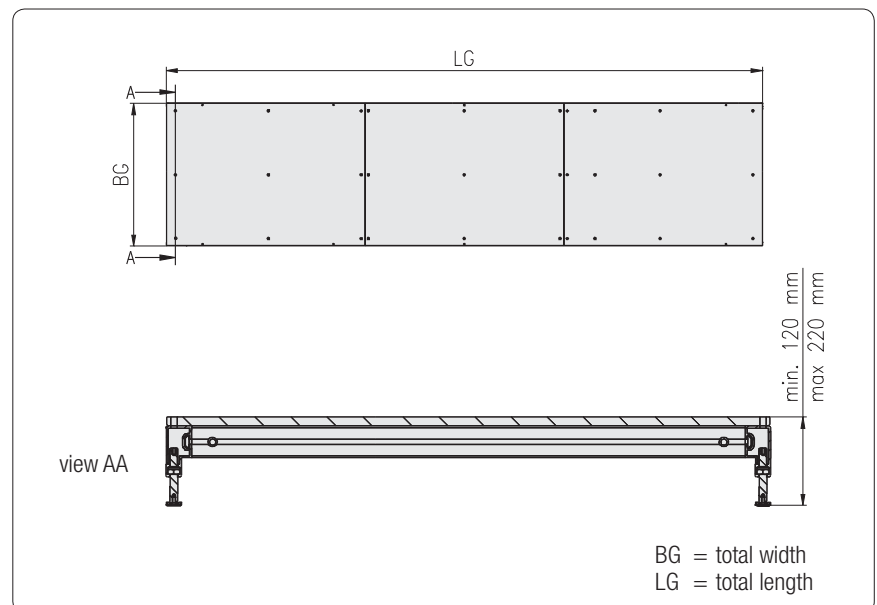
Interchangeable platform
placeholder for people mover

- 500 kg/m² maximum load



Technical data

max. load:	500 kg/m ²	
height:	type 1: min. 120 to max. 170 mm adjustable	↔ 26
	type 2: min. 150 to max. 220 mm adjustable	↔ 26
total width (BG):	500 - 1,600 mm	
total length (LG):	100 - 7,000 mm	
base frame:	aluminium extrusion, unanodized	



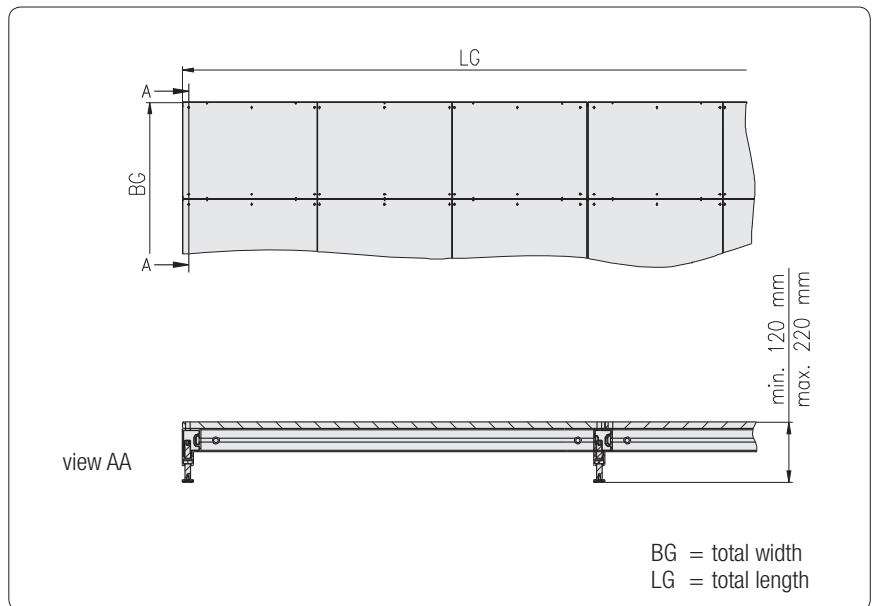
Stage

- 500 kg/m² maximum load



Technical data

max. load:	500 kg/m ²	
height:	type 1: min. 120 to max. 170 mm adjustable	↔ 26
	type 2: min. 150 to max. 220 mm adjustable	↔ 26
total width (BG):	□□□□	
total length (LG):	□□□□□	
base frame:	aluminium extrusion, unanodized	



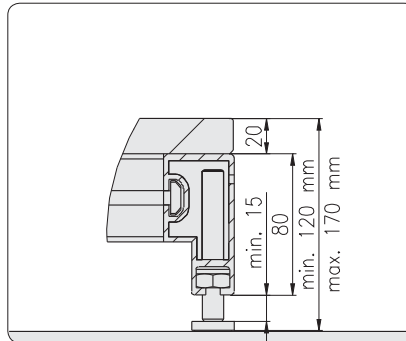
Base frame



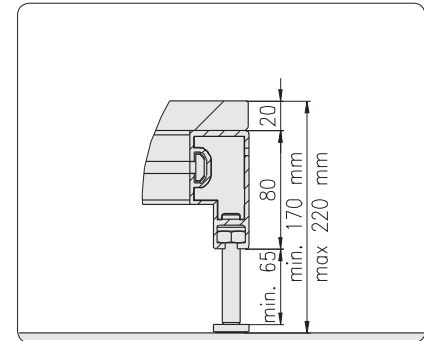
Assembly

MayTec custom extrusions provide high longitudinal and lateral stability

Height adjustability



Type 1



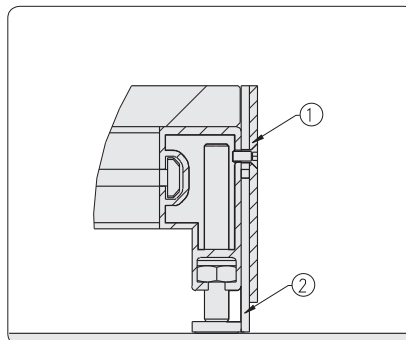
Type 2

Application

Accessible from top with socket wrench

The system allows a fast and easy adjustment to the floor conditions.

Side cover

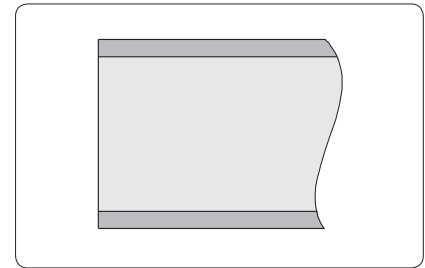


① adjustable cover strip

② adjustable cover strip

side cover can be adjusted to compensate for unevenness of flooring

Plastic sheet type RESOPAL[®] HPL plate



layer structure

Technical data

sheet thicknesses:	10, 12, 13, 14, 16, 18, 20, 22, 24, 25, 26 mm
sheet size:	2,180 × 915, 1,320 mm
surface:	HPL (high pressure laminate) - special coating paper with Melamin Formaldehyde resin
colour:	decor at discretion
anti-slip coefficient:	R9 according DIN 51130/BGR 181, step safety according Schuster
core material:	paper with Melamin Formaldehyde resin
back side:	HPL lamination (same as front side)
electrical conductivity:	ESD $10^9 - 10^{11} \Omega$
edges:	$2 \times 45^\circ$ chamfer
silicon free:	yes

Surface HPL coating

Type	Fire safety class	Electrical conductivity	Surface	Abrasion resistance
Resopal Solid F	B1	0 ESD	Resopal HPL	AC 5
Resopal Solid	B2	0 ESD		

The chart shows typical values of electrical resistance of the conductive RESOPAL multi layer panel

	test method	value
electrical resistance (in reference to a grounded point)	DIN EN 61340-2-3	$10^7 \Omega$ to $10^8 \Omega$
surface resistance (antistatic)	DIN EN 61340-2-3	$10^8 \Omega$ to $10^{11} \Omega$
other properties	EN 438-2	refer to PDB HPL

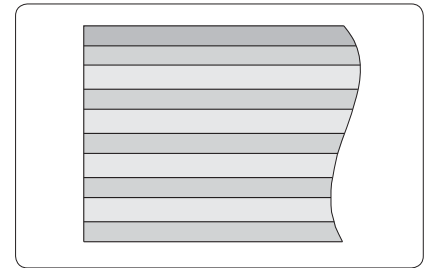
The measurements are performed with a measurement voltage of 100 V and a 2.5 kg electrode DIN EN 61340-5-1 and DIN EN 61340-4-1 Ed.2 with conductive rubber.

The electrical resistance is tested between the top surface of the material and a grounded conductive inside layer of the HPL sheet.

The electrical resistance of the surface is tested with two 2.5 kg electrodes connected to the panel surface.

Environmental conditions: standard climate with 18 - 25°C, relative humidity 50 - 65 %

Plastic sheet type DELIGNIT® industrial flooring



layer structure

Technical data

sheet thicknesses:	20, 25, 30, 40 mm
sheet size:	2,500 × 1,000, 1,300, 1,500 mm
core material:	construction plywood according EN 636-2 as supporting construction material for interior zones according CE 0765-CPD-0415 Blomberger Holzindustrie B. Hausmann GmbH & Co. KG 04 EN 13986, EN 636-2 E3
wood type:	beech, Brinell hardness HB = 34 N/mm ²
back side:	white resin coating or ESH painting
edges:	2 × 45° chamfer, transparent coating for splash guard
glueing:	according EN 314-2 (class 2) adequate for most areas and protected outside areas
silicon free:	yes

Surface painted

Type	Fire safety class	Electrical conductivity	Surface	Abrasion resistance
Professional L	B1	ESD	paint ESH-ESD	10.000 Taber
Professional B		DIF	lamination DIF	750 Taber
Basic L		ASF	paint ESH	10.000 Taber
Eco F	B2		film coating	750 Taber
Eco L			paint	

Technical data

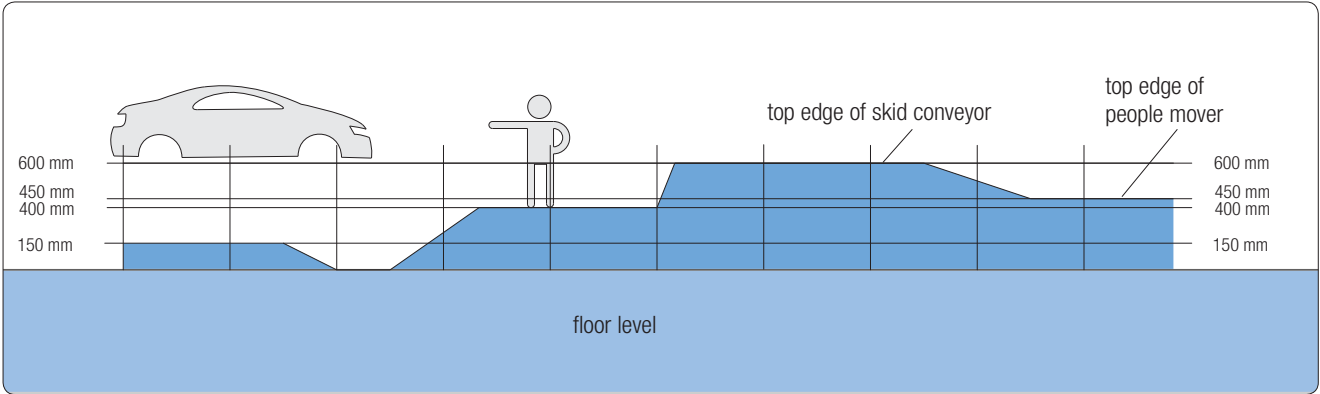
surface:	painting or coating
colours:	RAL 7008, 7035, 7045, 8000, transparent
anti-slip coefficient:	R9 according DIN 51130/BGR 181 step safety according Schuster
electrical conductivity:	ASF < 2.000 V electric charging DIF $1 \times 10^6 \Omega$ to $1 \times 10^9 \Omega$ ESD $7,5 \times 10^5 \Omega$ to $3,5 \times 10^7 \Omega$

Surface HPL coating

Type	Fire safety class	Electrical conductivity	Surface	Abrasion resistance
Basic HPL B1	B _{fl} - s1	ESD	Resopal HPL	AC 5
Basic HPL	D _{fl} - s1			

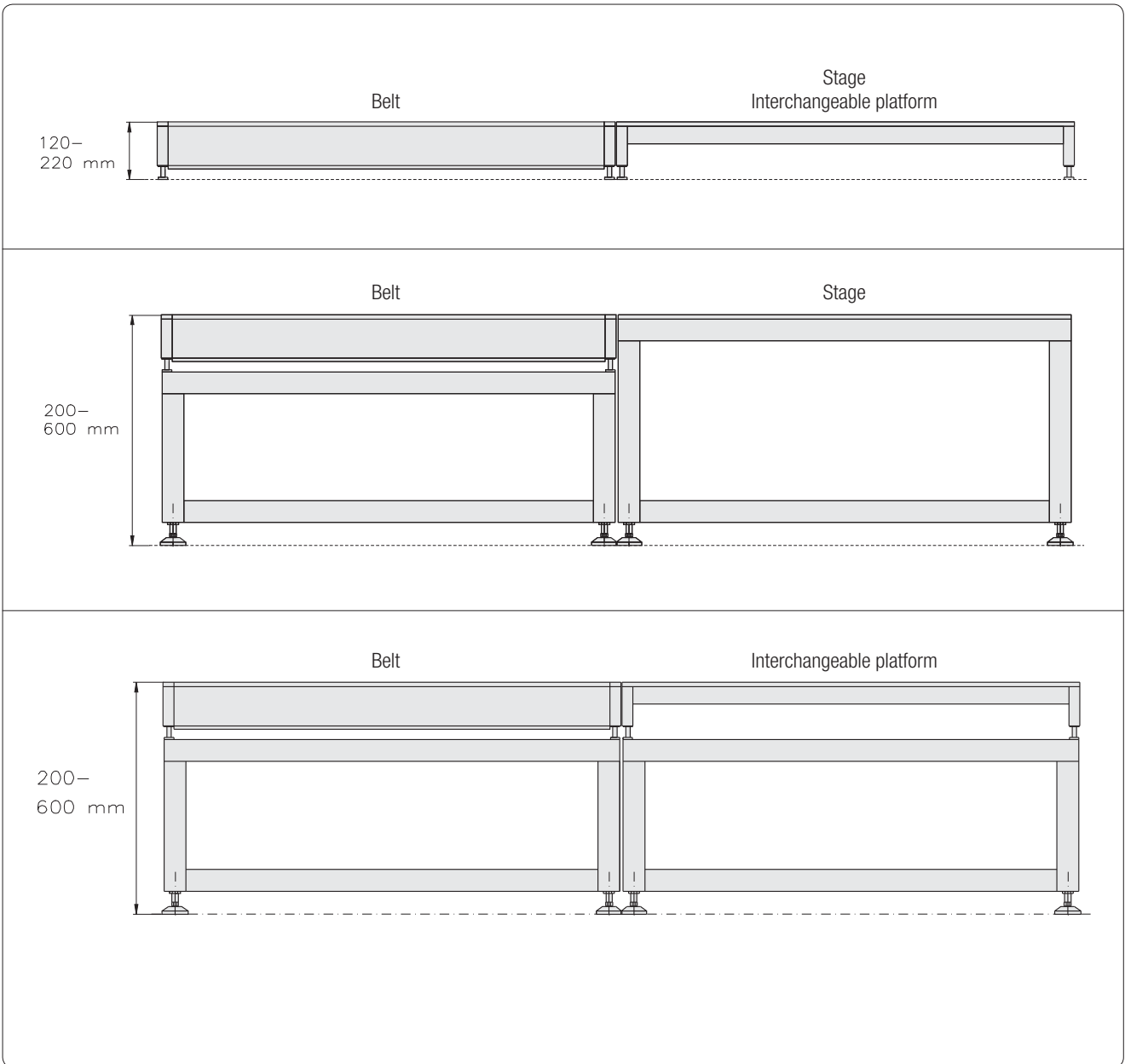
Technical data

surface:	HPL (high pressure laminate) - special coating paper with Melamin Formaldehyd resin
colour:	beech decor
anti-slip coefficient:	R9 according DIN 51130/BGR 181 step safety according Schuster
electrical conductivity:	$10^9 \Omega$ to $10^{11} \Omega$



typical skid conveyor configuration

Combination possibilites



AC servo motor with servo drive type Minas A4



Technical data

motor speed:	3.000 RPM
voltage of connection:	230 V
control voltage:	230 V
voltage deviation:	+10% -15%

- ① AC servo motor
- ② servo drive

Description	Weight	Product-No.
Minas A4 400 W	1.2 kg	5MPAN.MSMD042P1C
Minas A4 750 W	2.3 kg	5MPAN.MSMD082P1C

Type	Torque		Amperage	Weight	Moment of inertia 10 ⁻⁴ kg·m ²
	rated	peak			
Minas A4 400 W	1.3 Nm	3.8 Nm	4 A	1.2 kg	0.26
Minas A4 750 W	2.4 Nm	7.1 Nm	17 A	2.3 kg	0.87

Planetary gear box type PLE 80/90



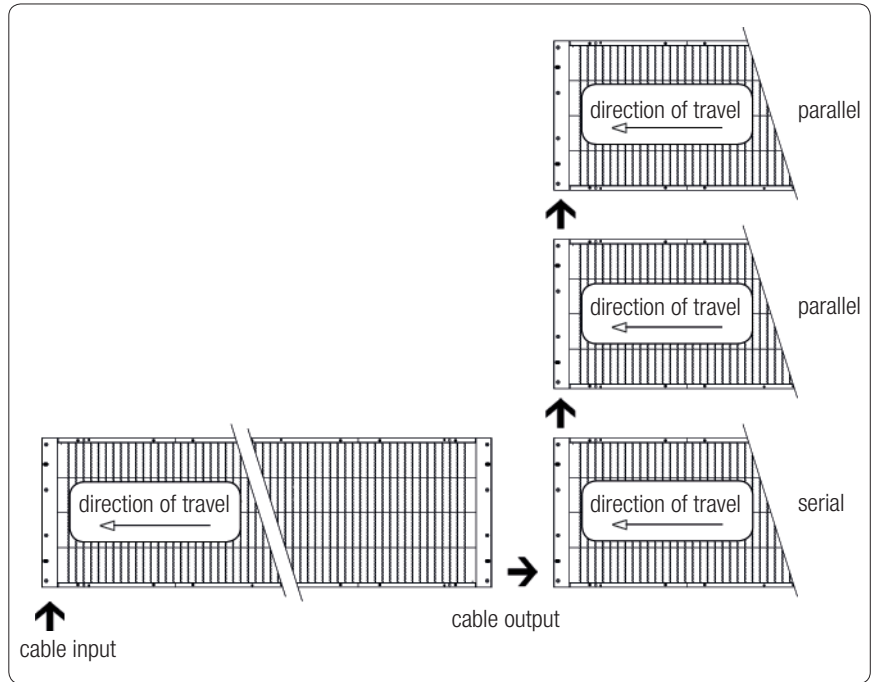
Technical data

operating noise:	60 db(A)
durability:	30,000 h
protection:	IP 54

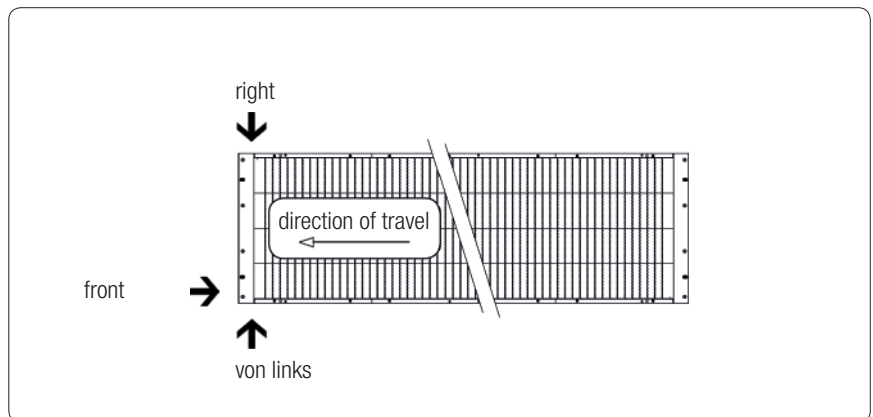
Description	Product-No.
PLE 80/90 i40	5PNEU.PLE80/90-040
PLE 80/90 i100	5PNEU.PLE80/90-100

Ratio	Reduction stages	Efficiency	Maximum torque Nm
1:40	2	94 %	110
1:100	3	90 %	120

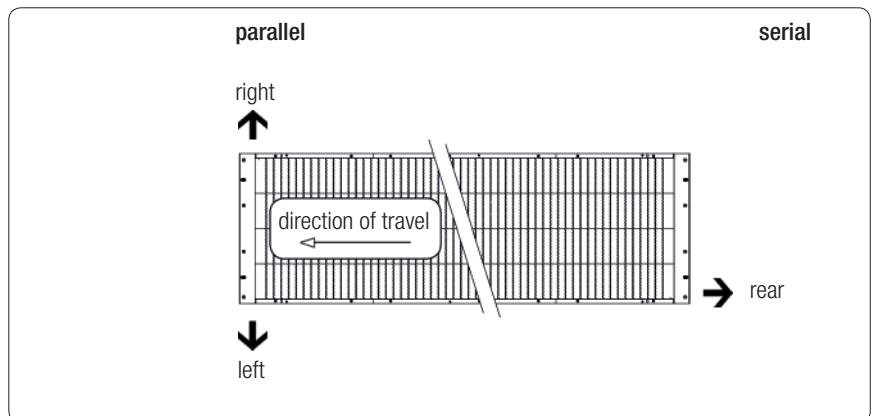
Conveyor layout



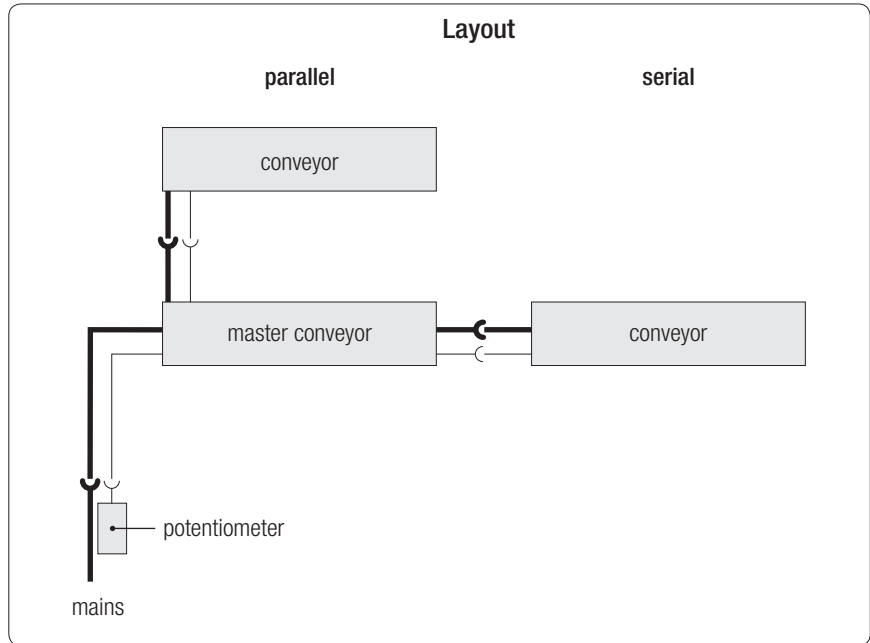
Cable input



Cable output



Servo drive inside the conveyor speed adjustment with potentiometer

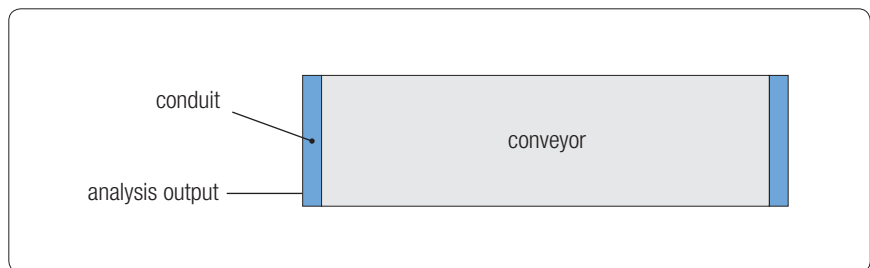


Electrical connection

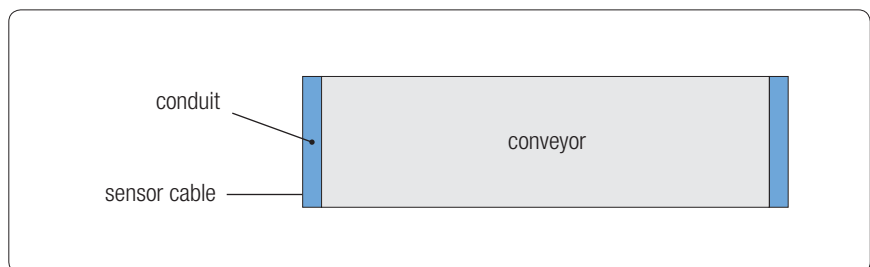
- each conveyor can be specified as master or slave and can be installed in a parallel or serial layout (up to 10 conveyors)
- mains supply 16 A with circuit breaker type C (1NPE 230 V / 50 Hz / 16 A)
- input wire 230 V (plug with connector housing Harting HAN-3A-M, 4-pin)
- input wire motor speed pre-selection plug M12, 4-pin
- 1 × output wire 230 V for parallel layout (socket Harting HAN-3A-M, 4-pin integrated in base frame)
- 1 × output wire 230 V for serial layout (socket Harting HAN-3A-M, 4-pin integrated in base frame)
- output wire motor speed pre-selection with status for servo drive plug M12, 4-pin
- each conveyor is protected with C4A circuit breaker
- protection IP 40
- potentiometer with socket M12, 4-pin (not included in scope of delivery)
- power supply to conveyor 1 (master) with Harting HAN-3A-M, 4-pin

optional

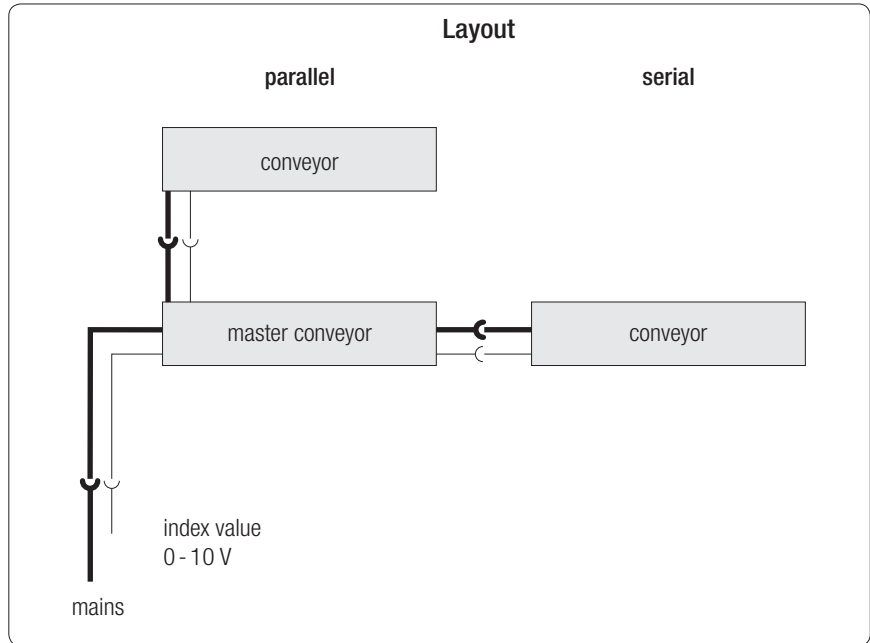
Analysis output for servo drive integrated in conduit of each conveyor



Sensor cable for monitoring of motor speed at drive shaft integrated in conduit of each conveyor



Servo drive inside the conveyor speed adjustment according external index value

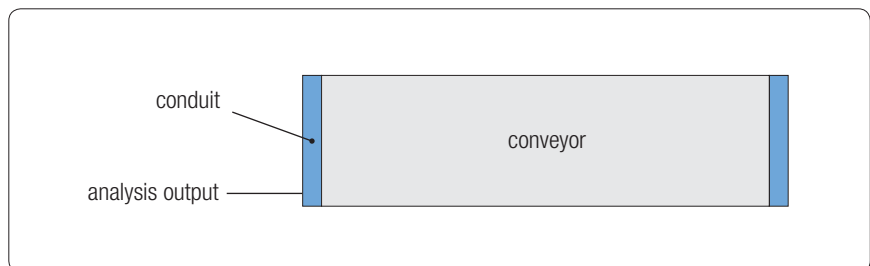


Electrical connection

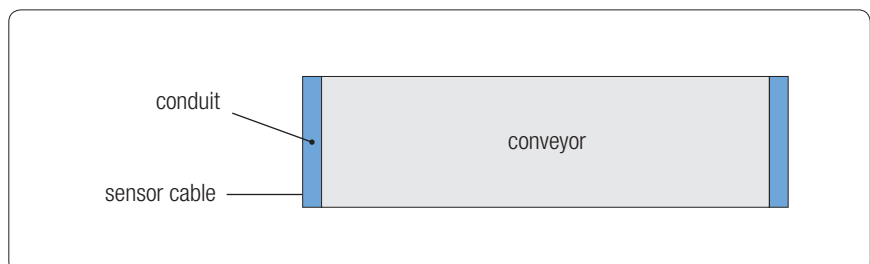
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- input wire 230 V (plug with connector housing Harting HAN-3A-M, 4-pin)
- input wire motor speed pre-selection plug M12, 4-pin
- 1 × output wire 230 V for parallel layout (socket Harting HAN-3A-M, 4-pin integrated in base frame)
- 1 × output wire 230 V for serial layout (socket Harting HAN-3A-M, 4-pin integrated in base frame)
- output wire motor speed pre-selection with status for servo drive plug M12, 4-pin
- each conveyor is protected with C4A circuit breaker
- protection IP 40
- input socket for external index value M12, 4-pin
- power supply to conveyor 1 (master) with Harting HAN-3A-M, 4-pin

optional

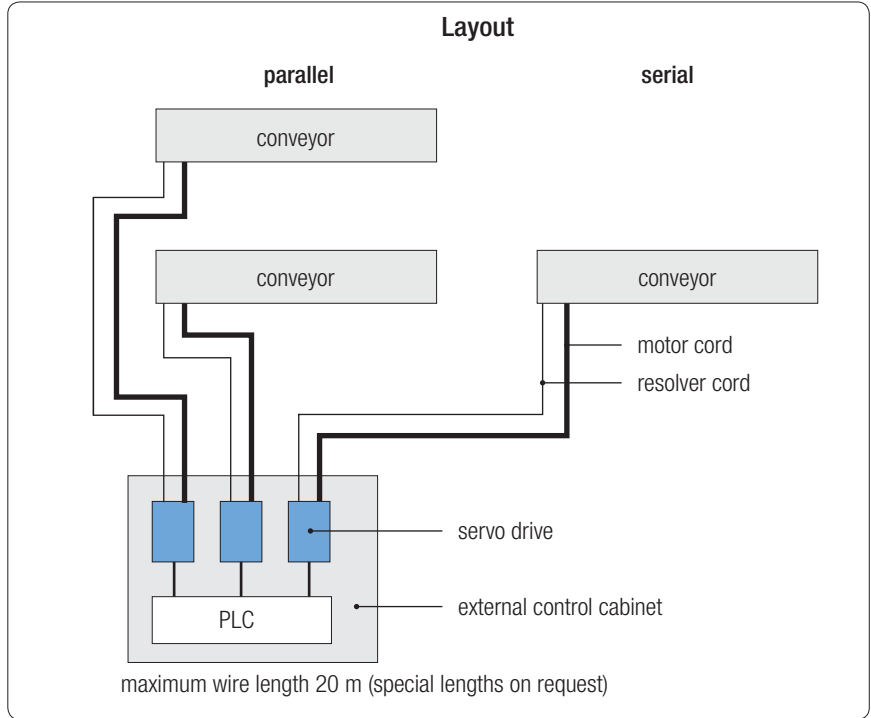
Analysis output for servo drive integrated in conduit of each conveyor



Sensor cable for monitoring of motor speed at drive shaft integrated in conduit of each conveyor



Servo drive with external control cabinet
 speed adjustment according external index value

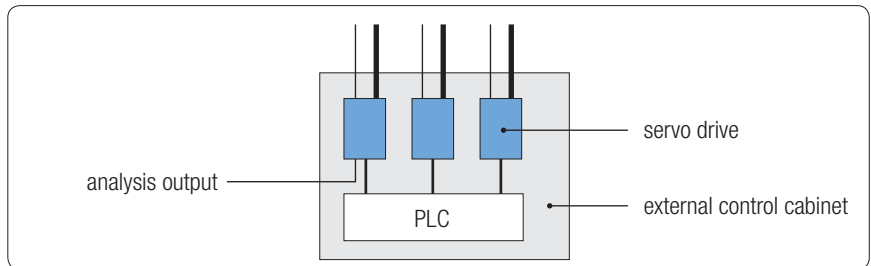


Electrical connection

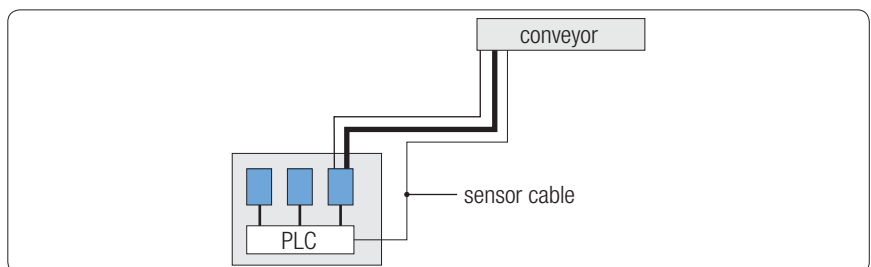
- mains supply 16 A with circuit breaker type C (1NPE 230 V / 50 Hz / 16 A)
- motor speed parameter: analog index value
- inverter enabling: activation 24 V DC
- error reset: activation 24 V DC
- motor cord: type MFMCA □□□□ EED-S
- resolver cord: type MFECA □□□□ EAM-S (□ in m)
- external motor speed analysis
- counter signal 24VDC PNP switching (min. 5 Hz) with plug M12×1
- protection IP 40
- motor cord
- external control cabinet

optional

Analysis output for servo motor optional integrated in external control cabinet at the servo drive



Sensor cable for monitoring of motor speed at drive shaft



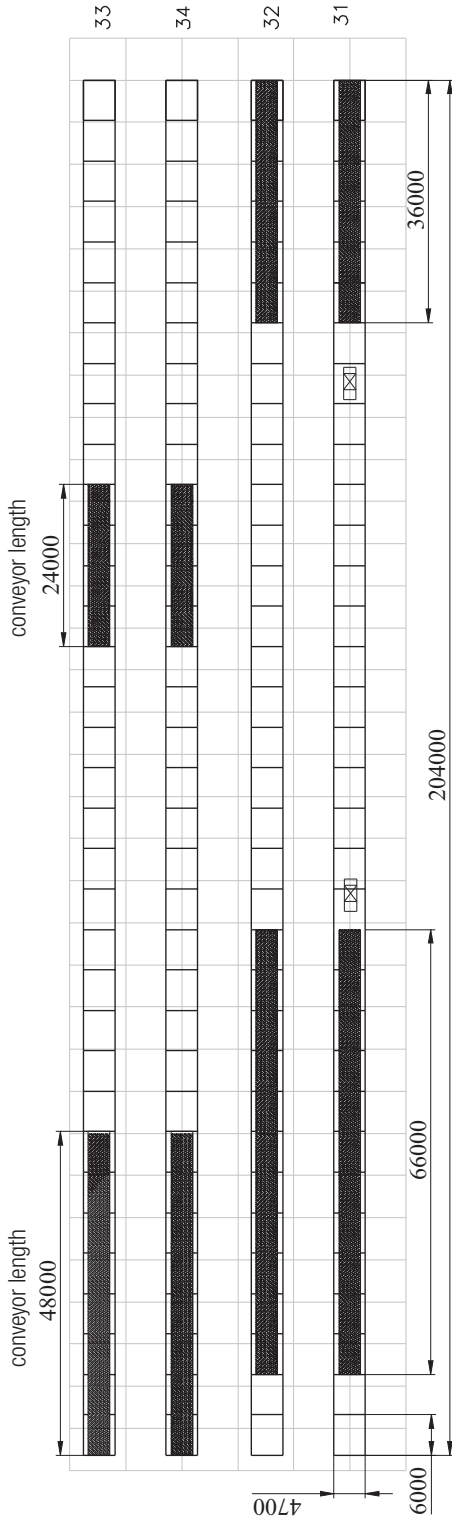


People movers with Kanban trolleys

Concept layout "Large Line"

Calculation:

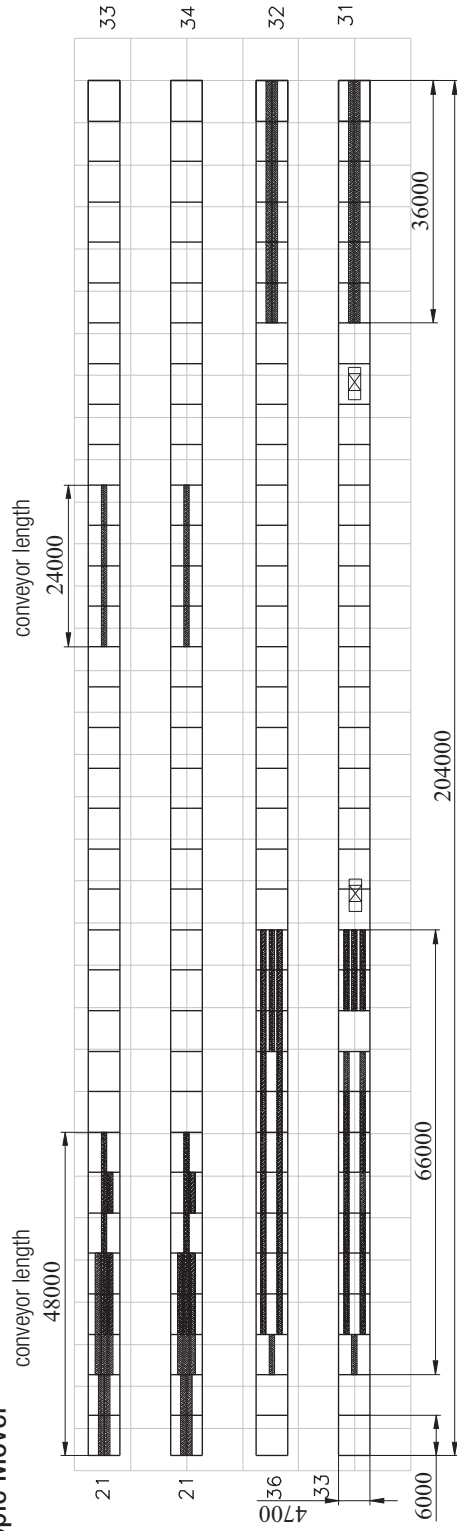
Length	Width	Surface area
48,000	3,200	308 m ²
24,000	3,200	154 m ²
66,000	3,200	423 m ²
36,000	3,200	230 m ²
Total:		1,115 m²



Concept layout "MayTec People Mover"

Calculation:

Length	Width	Surface area
6,000	800	528 m ²
Total:		528 m²





La chiave ...

del successo

elevata stabilità

economicità

funzionalità

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 **Bonechi**