INSPIRED BY EFFICIENCY

CATALOG
LIGHT CONVEYOR PLATFORM & AMR TOP MODULE

WITH

OMRON

Symbols

48V	Voltage 24 – 48 V
400V	Voltage 400 V
	Control element
	Conveyor element

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THE INTERROLL GROUP

The Interroll Group is a globally leading supplier of high-quality key products and services for internal logistics. The company, which is listed on the stock exchange and has its headquarters in Switzerland, employs some 2,600 people (in 2021) in 35 companies (in 2021) around the globe.

The solutions for our customers' daily logistical challenges are based on Interroll key products that are built on a worldwide common platform.

Conveyor Rollers

Interroll is the worldwide leading provider of conveyor rollers that can be found in a multitude of applications in internal logistics. For the roller production, we merge quality, flexibility and speed. More than 13 million rollers in 60,000 variants leave our plants worldwide every year. Our production is always order-driven, even for the smallest order quantities and, if desired, even with a delivery time of 24 hours. Proven.

Drives and Controls

Interroll is a leading manufacturer in the segment of DC motor rollers and drum motors.
Interroll RollerDrive and their controls are used in automated conveyor technology. Energy-efficient DC drives are installed in decentralized conveyor systems and, as a result, optimize energy demand and material handling. The bus interface enables integrating the zero pressure accumulation conveyor technology into Industry 4.0 systems.
Interroll Drum Motors are designed for use in belt conveyors and conveyor systems. These robust, high-quality belt drives enable the construction of maintenance-free, energy-efficient conveyor belt systems for the majority of industrial applications as well as for food processing, baggage handling and supermarket checkouts.

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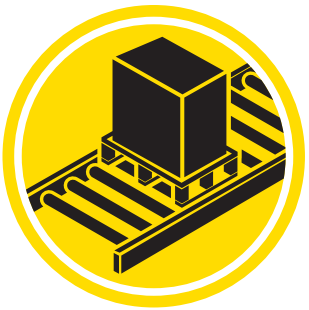
Holding

Sales, Production & Service

Global Competence Centers

Regional Competence Centers



Conveyors & Sorters

The Modular Conveyor Platform (MCP) from Interroll offers highest flexibility: a broad spectrum of modules, consisting of roller conveyors, belt conveyors as well as key products such as transfer, high-performance diverts or spiral lifts, covers all requirements of the material handling.

The Interroll Crossbelt Sorters were developed with an eye on precision for fast and precise sorting of goods of all types from 50 g to 35 kg. More than 400 Interroll sorters are used every day by the largest CEP players and E-commerce enterprises worldwide.

The modular pallet conveyor platform (MPP) offers roller and chain conveyors as well as special conveyors such as transfers and turntables to create a fully integrated, robust, space-saving and energy-saving solution for high throughput handling of pallets.

With the Special Hygienic Conveyor (SHC), Interroll offers a proven modular platform specifically for packaged food applications - an easy to integrate platform made of stainless steel for which basic required hygienic standards have been taken into account.

The Light Conveyor Platform (LCP) is synonymous with quickly available and flexible predefined modules. It is primarily used in the production and manufacturing industry as well as in the area of assembly and automation.

Pallet & Carton Flow

Interroll Pallet Flow and Carton Flow are the first choice when it comes to rapid turnarounds and optimizing the storage and commissioning process. Thanks to its efficiency and robustness, Pallet Flow ensures long-term availability and more flexibility for peaks in orders. The compact design reduces space requirements by up to 50 percent compared to conventional solutions. The integrated TimePlus Separator as well as the Magnetic Speed Controller increase the safety of the work environment and significantly reduce the risk of damages to goods.

The Interroll Carton Flow solutions are efficient as well as ergonomic, and were developed to improve the commissioning output.

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AMR TOP MODUL APPLICATION

Light Conveyor Platform AMR Top Module

The LCP AMR Top Module is a conveyor module that enables handling of lightweight goods on the AMR. It is part of an entire modular LCP platform. The LCP AMR Top Module consists of two parts. First, the conveyor module on the AMR, which has been developed on the basis of Interroll's extensive and long-standing experience with conveyors. This conveyor module, part of Interroll's LCP, has shown itself to be a proven solution in recent years.

Second, the AMR adaptor is the connecting piece between the top module and the AMR. Due to Interroll's expertise and experience in dealing with control systems, a simple interface was developed, which allows seamless operation for the end users. The LCP AMR Top Module provides seamless interfaces and therefore guarantees a smooth material flow when AMRs are integrated. Unlike other top module manufacturers, Interroll offers a complete solution which is a unique selling proposition (USP) in the market. Moreover, Interroll customers can expect the highest level of process reliability, as the solutions are perfectly coordinated with each other.

By using Interroll's LCP AMR Top Module, system integrators—and end users—can trust in a proven solution that is based on Interroll's vast experience in conveyor technology. This single-source option provides the highest level of customer comfort for system integrators and end users as there are many fewer integration challenges.

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AMR TOP MODUL APPLICATION

Safety
Most of currently installed solutions rely on Wi-Fi communication between the top module and the stationary conveyors. This can result in incorrect signals being transmitted and goods being conveyed at the wrong time. There is a risk of goods falling on workers and injuring them. Unlike competitors, Interroll offers an infrared solution that requires eye contact between the top module and the stationary conveyor. Before the transported object is off-loaded, the top module and the stationary conveyors require this direct eye contact: There is no offloading if there is no direct contact between them. This results in highest employee safety because there is no danger of incorrectly off-loaded goods.

Scalable solutions
Most manufacturers of top modules are only concerned with the production of top modules and not with a holistic solution including stationary conveyors. In contrast, the Interroll LCP AMR Top Module is part of an entire modular platform which consists of a variety of modular straight and curved modules that can be adapted to the customer's specific needs. This enables countless possible configurations resulting in highest flexibility and scalability for the customer and results in both the highest quality standards and perfect coordination between the modules.

Proven solutions
The LCP AMR Top Module is based on such proven solutions as the LCP and MCP that have been in use in millions of applications worldwide for many years. This result is a proven product that end user can trust.

Global Lifetime Service
The Interroll Lifetime Service team supports the System Integrators and the End Users not only on initial installation, but throughout the complete solution service life. From layout consultancy, installation, supervision and hotline support to spare parts, repairs, refurbishment, preventive maintenance and training, customers can rely on the expertise of Interroll service technicians.

Fast delivery times
Unlike its competitors, Interroll has a complete, modular, off-the-shelf solution. This means that all modules are of the same high quality and that customers can count on short delivery times realized for the LCP AMR Top Module as well as the stationary conveyors. End customers can trust in Interroll even in time-critical projects. This results in delivery times of three weeks maximum within the Europe, Middle East, Africa (EMEA) region. In addition, customers can expect the fastest response and delivery times when service is required or an extension to the system is needed.

Controls
The LCP AMR Top Module is controlled with the help of Interroll's controls, which are manufactured in-house and are already in use in thousands of installations worldwide. This results in the highest level of customer comfort, as customers can trust in proven control solutions. In addition, Interroll's in-house control manufacturing ensures the greatest simplicity for customers, who can get a full solution from a single source.

Simple interface
The AMR adaptor enables seamless communication between the AMR and the top module and a smooth handshake that improves the flow of goods. This makes it a cost-efficient solution for end users.

AMR TOP MODULE
AMR S- AND M-PLATFORM

48V

400V

Product description

AMRs are used in a variety of applications, including material handling, transportation, and fulfillment. They are often used to automate tasks that are repetitive, dirty, or dangerous for humans to perform, and can operate in a variety of environments. AMRs are used in a wide range of industries, from manufacturing and health care to logistics and more.

Scope of delivery

- Belt or roller conveyor module
- Standard or ESD version
- Build in safety system
- Build in control, photo sensor and communication module
- Designed for Interroll LCP stationary modules

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AMR TOP MODULE
AMR S- AND M-PLATFORM

Stationary Components

Robot S-Platfom
LCP conveyor for mobile robot application (W=420 mm) with:

- LCP control
- Wireless communication module
- Navigation plate
- Fixed side guides
- Leg system (H=640 to 800 mm)

Configuration:

- Standard belt conveyor configuration (W=420 mm)
  - L=1000 mm
  - L=2000 mm
  - L=3000 mm
- ESD belt conveyor configuration (W=420 mm)
  - L=1000 mm
  - L=2000 mm
  - L=3000 mm

Robot M-Platfom
LCP conveyor for mobile robot application (W=620 mm) with:

- LCP control
- Wireless communication module
- Navigation plate
- Fixed side guides
- Leg system (H=640 to 800 mm)

Configuration:

- Standard belt conveyor configuration (W=620 mm)
  - L=1000 mm
  - L=2000 mm
  - L=3000 mm
- ESD belt conveyor configuration (W=620 mm)
  - L=1000 mm
  - L=2000 mm
  - L=3000 mm

AMR TOP MODULE
AMR S- AND M-PLATFORM

48V

400V

Mobile components

Robot S-Platfom

LCP AMR Top-Module (W=420 mm) with:

- Adapter module for mobile robot
- Conveyor module (L=800 mm, W=420 mm)
- AMR control
- Build in safety system
- Wireless communication module
- Fixed side guides

Configuration:

- Mobile module standard belt conveyor configuration
  - Interroll adapter with cabling for OMRON LD60 and LD90
- Mobile module ESD conveyor configuration
  - Interroll adapter with cabling for OMRON LD60 and LD90
- Mobile module with roller conveyor
  - Interroll adapter with cabling for OMRON LD60 and LD90

Robot M-Platform

LCP AMR Top-Module (W=620 mm) with:

- Adapter module for mobile robot
- Conveyor module (L=1000 mm, W=620 mm)
- AMR control
- Build in safety system
- Wireless communication module
- Fixed side guides

Configuration:

- Mobile module standard belt conveyor configuration
  - Interroll adapter with cabling for OMRON LD250
- Mobile module ESD conveyor configuration
  - Interroll adapter with cabling for OMRON LD250
- Mobile module with roller conveyor
  - Interroll adapter with cabling for OMRON LD250

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Technical data

	Mobile Robot S-Platform		
General technical data			
Feature	Standard belt conveyor	ESD belt conveyor	Roller conveyor
Design	The AMR Top is designed based on Interroll LCP		
Brand design	OMRON LD60 OMRON LD90		
Dimensions of conveyed goods	VDA boxes, plastic bags • min. 80 x 80 x 20 mm • max. 600 x 400 x 600 mm		
Conveyor load (equal spread over the belt in max. height of 300 mm)	Up to 50 kg		Up to 25 kg
Top module weight (conveyor and skirt)	25 kg		27,5 kg
Incline/decline	0°		
Ambient temperature	Operation: +5 to +40 °C		
Humidity	93 %		
Degree of cleanliness	Operating environment: IP22		
Noise level	Leq < 60 db(A)		
Conveyor size	800 x 420 mm		
Belt drive and idler pulley			
Drive voltage	24 – 48 BLDC		
Conveyor speed	0,11 to 0,30 m/s (chosen via gear rational)		
Power consumption continuously	0,002 kWh		
Power consumption belt operating	0,06 kWh		
Belt direction	Bi-directional	Mono directional	Bi-directional
Ø Belt drive	80 mm		50 mm
Ø Idler pulley	40 mm		50 mm
Ø Support roller	50 mm		
Materials			
Frame	Aluminum		
Conveyor surface	Flex belt	ESD belt	Roller pitch
Certificates and approval			
ESD certificate	No	Yes	No
Approval	Designed for meeting European standards		

AMR TOP MODULE
AMR S- AND M-PLATFORM

48V

400V

	Mobile Robot M-Platform		
General technical data			
Feature	Standard belt conveyor	ESD belt conveyor	Roller conveyor
Design	The AMR Top is designed based on Interroll LCP		
Brand design	OMRON LD250		
Dimensions of conveyed goods	VDA boxes, plastic bags • min. 80 x 80 x 20 mm • max. 800 x 600 x 600 mm		
Conveyor load (equal spread over the belt in max. height of 300 mm)	Up to 50 kg		Up to 25 kg
Top module weight (conveyor and skirt)	35 kg		39,5 kg
Incline/decline	0°		
Ambient temperature	Operation: +5 to +40 °C		
Humidity	93 %		
Degree of cleanliness	Operating environment: IP22		
Noise level	Leq < 60 db(A)		
Conveyor size	1000 x 620 mm		
Belt drive and idler pulley			
Drive voltage	24 – 48 BLDC		
Conveyor speed	0,11 to 0,30 m/s (chosen via gear rational)		
Power consumption continuously	0,002 kWh		
Power consumption belt operating	0,06 kWh		
Belt direction	Bi-directional	Mono directional	Bi-directional
Ø Belt drive	80 mm		50 mm
Ø Idler pulley	40 mm		50 mm
Ø Support roller	50 mm		
Materials			
Frame	Aluminum		
Conveyor surface	Flex belt	ESD belt	Roller pitch
Certificates and approval			
ESD certificate	No	Yes	No
Approval	Designed for meeting European standards		

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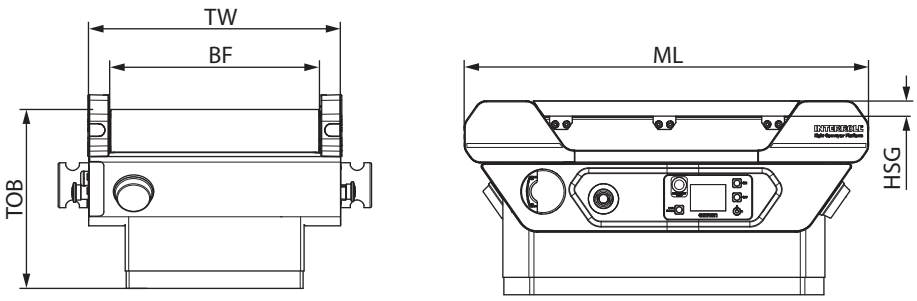
Dimensions



			Small platform	Large platform
			OMRON LD60/LD90	OMRON LD250
BF	Rated width	OBC	400 mm	600 mm
		AMR conveyor	420 mm	620 mm
		Stationary conveyor		
TOB	Top of Belt		min. 733 mm - robot height max. 883 mm - robot height	min. 643 mm - robot height max. 793 mm - robot height
ML	Module length	OBC	600 mm	600 mm
		AMR belt conveyor	800 mm	1000 mm
		AMR roller conveyor	781 mm	961 mm
		Stationary conveyor	1000 mm	1000 mm
TW	Module width		506 mm	706 mm
HSG	Side guide height		30 mm	

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AMR TOP MODULE
AMR S- AND M-PLATFORM

48V

400V

Belt types

Model	NAW-02SSBV Standard	ENI-5EE ESD
Main industry	• Materials handling	• Electronics • Paper manufacturing • Paper printing • Plastics
Features	• Semi-elastic • Flexibility • High grip Surface	• Highly abrasion resistant • Antistatic • Cut resistant
Construction / design		
Surface	Flex belt	ESD belt
Conveying side material	Polyvinyl chloride (PVC)	Polyurethane X-linked
Conveying side color	Black	Black
Number of fabrics	1	2
Pulley side material	Polyester (PET)	Polyurethane X-linked
Characteristics		
Antistatically equipped	Yes	Yes - EN 12882
Flammability	In accordance with ISO 340	No prevention property
Belt direction	Bi-direction	Mono direction
Technical data		
Thickness	2.2 mm	1.2 mm
Mass	2.4 kg/m^2	1.2 kg/m^2
k1% static	0.50 N/mm	6.0 N/mm
k1% relaxed	0.25 N/mm	4.2 N/mm
Operating temperature	15 to 60 °C	-30 to 80 °C
Joining method		
Low noise application	No	No
Suitable for metal detector	No	No

Conveyor load and speed

Rated velocity v_{belt} [m/s]	0.10	0.13	0.16	0.17	0.19	0.23	0.25	0.28
Max. load on conveyor [kg]								
Belt module	50	50	50	50	50	50	50	50
Roller module	20	20	20	20	20	20	20	20

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AMR TOP MODULE
AMR S- AND M-PLATFORM

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AMR CONTROL
CONTROL AND COMMUNICATION SOLUTIONS

48V

400V

Product description

Control and Communication solutions is an integrated part of the Interroll LCP and AMR Mobile Robot Platform. All stationary LCP controls can via the wireless module interchange control signals and safety signals with the unit on the Top Module. AMR adaptor is the connecting piece between the Top Module and the robot. Due to Interroll's experience in dealing with control systems, the LCP AMR Top Module provides seamless interfaces and therefore guarantees a smooth material flow when robots are integrated. Unlike other top module manufacturers, Interroll offers a complete solution and Interroll's customers can expect the highest level of process reliability, as the solutions are perfectly coordinated with Interrolls product range.

Benefits

- Integration between Top Module control and LCP units
- Direct communication between Top Module and robot
- Fully integrated safety system between mobile and stationary units
- Interchanging of signals via standard protocols
- Detecting of OBC via photo sensors on all units

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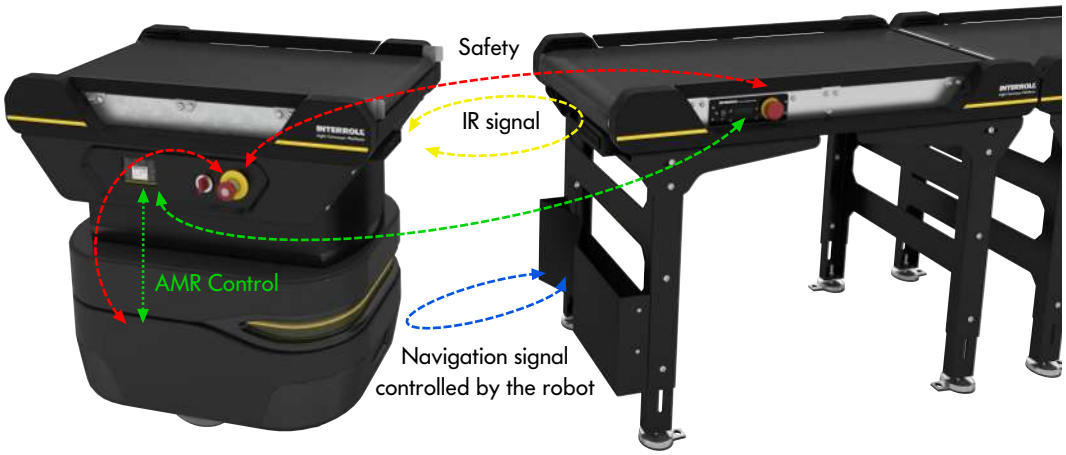
Kits

The IR module and the VL-marker kit (AMR positioning guide plate), is mounted onto the stationary conveyor unit.

To simplify the installation process, both the VL-marker and the IR module are delivered as a kit from Interroll, ready to be mounted. The kit provides easy mounting options, specifically designed to fit the LCP or MCP support legs.

IR module kit



The IR module on the AMR Top and the stationary conveyor enables logic communication and correct hand-shake, when delivering or receiving an OBC.

VL-marker kit

The VL (Virtual line) - marker is a physical marker used to identify a specific location for docking and charging. It serves as a reference point for the AMR to accurately navigate and align with the charging / docking station. The VL - marker enables communication between the AMR and the stationary conveyor. The VL - marker is an essential component of the AMR system.

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LCP APPLICATION

The LCP conveyor is a smart, reliable and simple solution for production logistics. The LCP is delivered with pre-programmed logics, and a built-in safety system, there by being truly plug-and-play. The LCP's can be indefinitely connected together, meaning you can solve most common production logistical tasks, easy and with a lot of flexibility.

The system can convey goods from 80 mm in length and width, up to 600 x 600 mm, with a weight up to 50 kg pr. unit and will be available with speeds from 0,1m/s up to 0,9m/s. By combining the 12 variants, you can easily set up a conveyor line without the need of skilled labour. When buying the legs for the LCP, it can be inclined or declined up to 18 deg. Giving a great deal of flexibility in planning and replanning of an assembly or production area.

Accessories

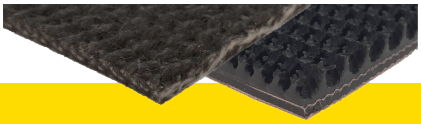
- Side guides can be configured as none, fixed or adjustable
- Bridge for conveying small items (10 x 80 mm)
- Leg support system for full flexibility between 640 and 1700 mm

Features

- Simple, flexible and fast installation
- Scalable from small to large setups
- Plug-and-play

- 4 different control models
- ZPA logic and photo sensors
- Built in safety system
- Interconnected controllers
- Digital and network communication

- Ø 80 mm belt drive
- 3 x 400/480 VAC 50/60 Hz
- Speed options 0,1 – 0,9 m/s
- Built in thermo sensor



- PVC standard belt
- Grip belt
- Low friction belt
- Cut, hot and oil resistant belt
- ESD belt

Control variants

Variants	Main	Local	Digital	Network
Product model	CO6601	CO6602	CO6603	CO6604
Main power switch	x			
Emergency stop button	x			
Works in stand-alone mode	x	x		
Integrated safety function	x	x		
Works in PLC mode via digital I/O			x	
Works in PLC mode via Fieldbus (e.g. ProfiNet)				x

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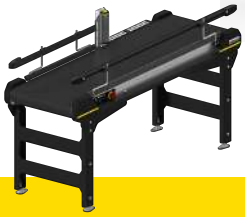

- Transfer element for redirecting OBC
- Standard with low-friction belt
- One length of 1500 mm
- 3 widths (320, 420 & 620 mm)

- Straight belt conveyor with leg system
- Incline and decline capable
- 3 widths (320, 420 & 620 mm)
- 3 lengths (1000, 2000 & 3000 mm)

- Integrated solution AMR
- Fast delivery from shelf
- Flexible and scalable concept
- Modular with different solutions

Conveyor Variants

Variants	Straight	Transfer
Width: 320, 420, 620 mm	×	×
Length: 1000, 20000, 3000 mm	×	
Length: 1500 mm		×
Incline - decline	×	
Sideguide: none, fixed, adjustable	×	×
OBC guiding roller		×
Telescopic support legs	×	×

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LCP CONVEYOR
STRAIGHT CONVEYOR

48V

400V

Product description

The Straight Conveyor is part of the Interroll Light Conveyor Platform to convey goods in light industrial applications. The conveyor system includes the patented quick tension / release idler system for easy installation and change of the conveyor belt and other parts. The Interroll LCP Straight Conveyor is available in a combination of three widths and three lengths. It is prepared for plug-and-play and designed to drive in the direction of the Belt Drive.

By default, the control will be on the right side in the direction of the moving objects; it can also be installed on the left side.

The leg systemof the conveyor consists of steel profiles with adjustable feet. As a result, the transfer dimensions to adjacent modules are variably adjustable and the module can be adjusted for uneven floors. The leg system can also be configured for incline/decline applications.

Benefits

- Standard plug-and-play solution
- Easy and fast installation
- Easy maintenance
- Scalable solution
- Fixed or adjustable side guides can be added
- Quick tension release for easy belt change
- Integrated photosensor placement
- Telescopic support legs, for height adjustment and incline/decline applications

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Technical data

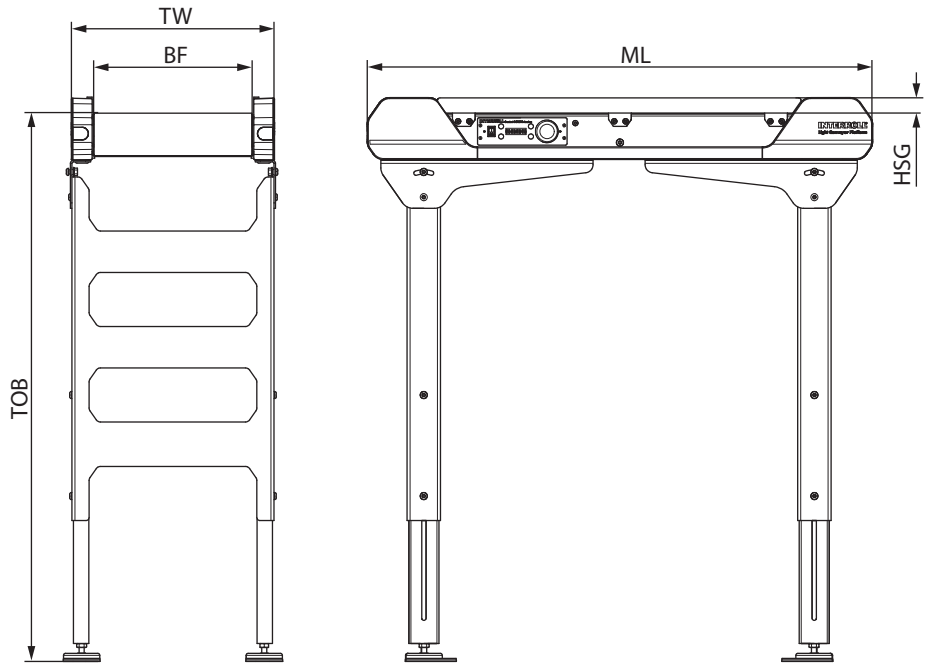
	Straight Conveyor
General technical data	
Design	The conveyors are designed based on Interroll light industrial conveyor systems with their overall profiles and an enhanced new design that includes covers and well-integrated control. LCP consists of straight, incline, decline and transfer conveyors.
Dimensions of conveyed goods	VDA boxes, plastic bags • min. 80 x 80 x 20 mm • max. 600 x 600 x 600 mm
Conveyor belt speed	page 22
Incline/decline	Max. 18°
Ambient temperature	Operation: +5 to +40 °C
Humidity	93 %
Degree of cleanliness	Operating environment: IP22
Noise level	Leq < 60 db(A)
Belt drive and idler pulley	
Drive voltage	3 x 400 V/50 Hz 3 x 460 V/60 Hz
Speed	Belt drive speed is typically 5 % lower than belt speed
Power	85 -120 W
Ø Belt drive	80 mm
Ø Idler pulley	40 mm
Ø Support roller	50 mm
Materials	
Frame	2 mm hot-dipped coated galvanized steel
Support legs	3 mm powder coated steel
Side covers	Polymer
Cable channel covers	Polymer
Safety end covers	1.5 mm galvanized steel
Belt drive	Shell: tube with surface protection End housings and shaft caps: aluminum
Idler pulley	Shell and shaft: uncoated steel End caps and end housings: techno polymer
Belt	Standard belt for straight conveyor: NHM-8EKBV, page 29 Belt for incline/decline conveyor: NSL-7EEBV, page 29 Other belt types available on request.

LCP CONVEYOR
STRAIGHT CONVEYOR

48V

400V

Dimensions



BF	Rated width	320 / 420 / 620 mm
TOB	Top of belt	Min. 620 mm (650 mm with feet) Max. 1.700 mm (pay attention to compliance with regulations for higher use)
ML	Module length	1.000 / 2.000 / 3.000 mm
TW	Module width	406 / 506 / 706 mm
HSG	Side guide height	30 mm

Conveyor load and speed

Rated velocity v_{belt} [m/s]	0.11	0.13	0.16	0.17	0.19	0.23	0.25	0.28	0.40	0.63	0.76	0.92
Max. load on conveyor [kg]												
Straight	50	50	50	50	50	50	50	50	50	25	25	25
Incline/decline 18°	50	50	50	50	50	50	50	30	30	25	25	25

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LCP CONVEYOR
STRAIGHT CONVEYOR

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LCP CONVEYOR
TRANSFER CONVEYOR

48V

400V

Product description

The Transfer Conveyor is part of the Interroll Light Conveyor Platform to convey goods in light industrial applications. The conveyor system includes the patented quick tension/release idler system for easy installation and change of the conveyor belt and other parts. The Interroll LCP Transfer Conveyor is available in a combination of three widths and one length. It is prepared for plug-and-play and designed to drive in the direction of the belt drive.

By default, the control will be on the right side in the direction of the moving objects; it can also be installed on the left side.

The leg system of the conveyor consists of steel profiles with adjustable feet. As a result, the transfer dimensions to adjacent modules are variably adjustable and the module can be adjusted for uneven floors.

The transfer conveyor is supplied with a belt with low surface friction to ensure the transported goods move well from the straight conveyor into the transfer. The belt is also supplied with a feature to ensure proper tracking when goods are moved at an angle onto the transfer. In addition a vertical corner roller and a customized bridge ensures even flow of the goods from conveyor to conveyor. The bridge and roller need to be mounted on the transfer conveyor by the customer. These products supports to guide conveying goods in the new direction (90°turn) and ensure conveying of smaller items. When integrating the transfer conveyor with other LCP straight conveyors, the straight conveyor should be slightly higher. As with all other LCP conveyors, the transfer conveyor can be delivered with or without side guides. The electrical kit including controller, cables and sensors are fully assembled.

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Technical data

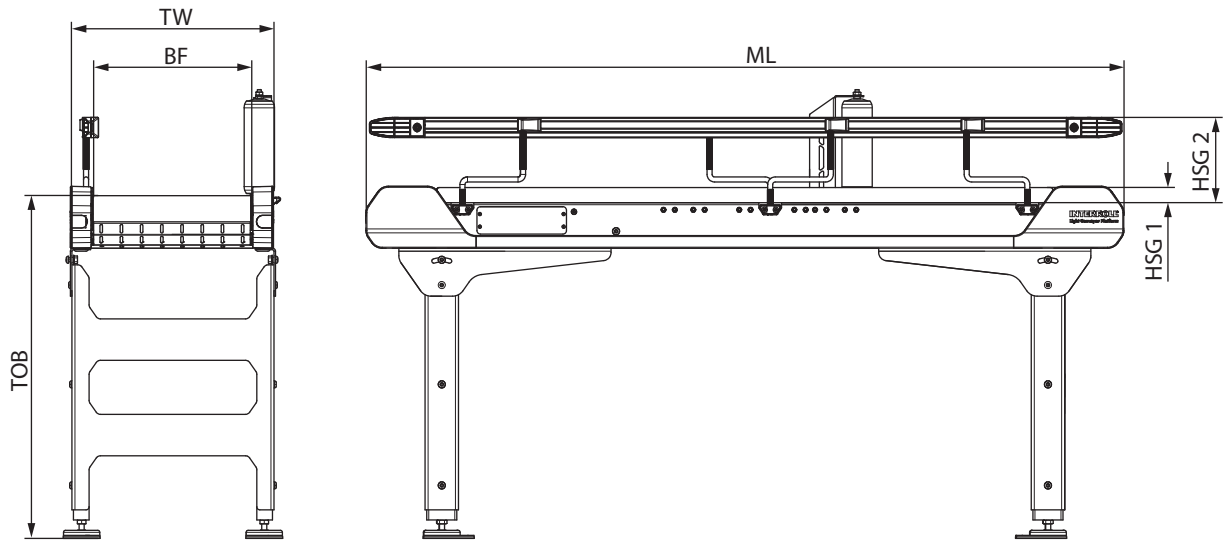
	Transfer Conveyor
General technical data	
Design	The transfer conveyor is designed to transfer the goods to a vertical straight conveyor. The belt has a special rubber driver, special slider bed and rollers to suit this purpose.
Dimensions of conveyed goods	VDA boxes, plastic bags • min. 80 x 80 x 20 mm • max. 600 x 600 x 600 mm
Conveyor load and belt speed	page 26
Incline/decline	0°
Ambient temperature	Operation: +5 to +40 °C
Humidity	93 %
Degree of cleanliness	Operating environment: IP22
Noise level	Leq < 60 db(A)
Belt drive and idler pulley	
Drive voltage	3 x 400 V/50 Hz 3 x 460 V/60 Hz
Speed	Belt drive speed is typically 5 % lower than belt speed
Power	85 -120 W
Ø Belt drive	90 mm
Ø Idler pulley	50 mm
Ø Support roller	50 mm
Materials	
Frame	2 mm hot-dipped coated galvanized steel
Support legs	3 mm powder coated steel
Side covers	Polymer
Cable channel covers	Polymer
Safety end covers	1.5 mm galvanized steel
Belt drive	Shell: tube with rubber lagging End housings and shaft caps: aluminum
Idler pulley	Shell: galvanized End housings and end caps: techno polymer
Belt	Belt for transfer conveyor: NNT-10ENBU, page 29 Other belt types available on request.

LCP CONVEYOR
TRANSFER CONVEYOR

48V

400V

Dimensions



BF	Rated width	320 / 420 / 620 mm
TOP	Top of belt	Min. 620 mm (650 mm with feet) Max. 1.700 mm (pay attention to compliance with regulations for higher use)
ML	Module length	1.500 mm
TW	Module width	406 / 506 / 706 mm
HSG 1	Side guide height	fix: 30 mm
HSG 2		adjustable: 100 mm

Conveyor load and speed

Rated velocity v_{belt} [m/s]	0.12	0.14	0.18	0.19	0.21	0.26	0.28	0.32	0.45	0.71	0.85	1.03
Max. load on transfer [kg]	50	50	50	50	50	50	50	50	50	25	25	25

The belt drives for the transfer conveyors are manufactured with 5 mm thick rubber insulation with a center V-groove to adapt to the belt profile. This thickness causes higher belt speed.

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LCP CONVEYOR
TRANSFER CONVEYOR

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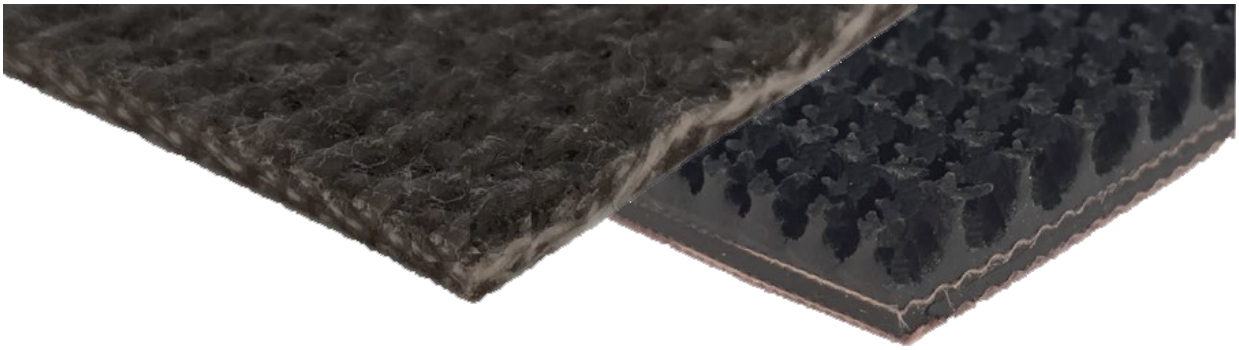
LCP CONVEYOR BELT SOLUTIONS

Product description

There are different types of belts. A selection is listed in the table on the next page. Information on other belt types can be requested directly from Interroll.

The belt types delivered with each conveyor are as follows, unless agreed upon otherwise:

Conveyor	Belt type
Straight	Standard belt type NHM-8EKBV
Incline	Special belt type NSL-7EEBV
Decline	
Transfer	Special belt type NNT-10ENBU



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Belt types

Model	NHM-8EKBV 11 Standard	ENI-5EE ESD	NNT-10ENBU Low friction	UM100SC-B 18 Cut - Oil - Hot	NSL-7EEBV Grip
Main industry	• Materials handling	• Electronics • Paper manufacturing • Paper printing • Plastics	• Distribution centers • General conveying	• Electronics • Airport • Automotive • Metal components • Plastics	• Distribution centers • General conveying
Applications	• Check-out belt • Line belt • Power turn belt	• Accumulation belt • Infeed belt • Inspection belt • Processing belt • Transfer belt	• Accumulation belt • Merge belt • Packaging belt • Transfer belt	• Accumulation belt • Blanking belt • Infeed belt • Diverting belt • Light package handling • Magnetic conveyor belt	• Acceleration belt • Decline/Incline belt • Feeder belt • Inserting belt • Sorting belt
Features	• Flexibility • Antistatic	• Highly abrasion resistant • Antistatic • Cut resistant	• Abrasion resistant • Antistatic • Low friction • Low noise	• Chemical resistant • Oil & water resistant • Cut & wear resistant • Impact resistant	• Antistatic • High coefficient of friction
Construction / design					
Conveying side material	Polyvinyl chloride (PVC)	Polyurethane X-linked	Polyester (PET)	Polyester (PET) fleece	Polyvinyl chloride (PVC)
Conveying side color	Black	Black	Black	Black	Grey
Number of fabrics	2	2	2	1	2
Pulley side material	Polyester (PET)	Polyurethane X-linked	Polyester (PET)	Polyester (PET) fleece	Polyester (PET)
Characteristics					
Antistatically equipped	Yes	Yes - EN 12882	Yes	Yes - EN 12882	Yes
Flammability	No prevention property	No prevention property	Classified according to UL 94HB (USA)	No prevention property	Classified according to UL 94HB (USA)
Technical data					
Thickness	1.9 mm	1.2 mm	2.1 mm	2.5 mm	2.5 mm
Mass	2.1 kg/m^2	1.2 kg/m^2	2.3 kg/m^2	1.9 kg/m^2	2.7 kg/m^2
k1% static	8 N/mm	6.0 N/mm	9.5 N/mm	20 N/mm	10 N/mm
k1% relaxed	6 N/mm	4.2 N/mm	6 N/mm	7.7 N/mm	6.5 N/mm
Operating temperature	-10 to 70 °C	-30 to 80 °C	-20 to 80 °C	-10 to 80 °C	-10 to 60 °C
Joining method					
Low noise application	No	No	Yes	Yes	Yes
Suitable for metal detector	Yes	No	No	No	Yes

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LCP CONVEYOR SUPPORT

48V

400V

Product description

The support is intended for fastening the conveyors to the floor or lift floor. The support foot is infinitely adjustable. A simple height adjustment via threaded spindle can be ordered as an add-on.

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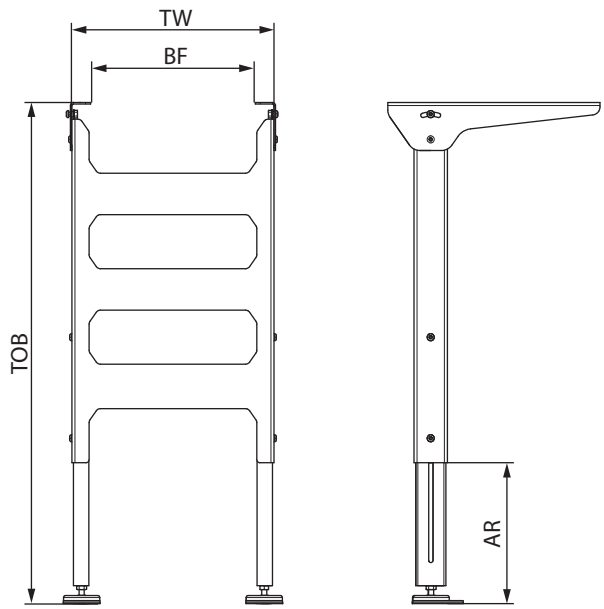
Technical data

General technical data	
Number of crossbars	2 for 650 to 800 mm height of roller top edge 3 for 800 to 1400 mm height of roller top edge 5 for 1400 to 1700 mm height of roller top edge

Dimensions



		Low	Medium	High
BF	Rated width	320, 420, 620 mm	320, 420, 620 mm	320, 420, 620 mm
TW	Module width		BF + 80 mm	
TOB	Top of belt	640 – 800 mm	801 – 1100 mm	1101 – 1700 mm
AR	Adjustment range	+/– 160 mm	+/– 299 mm	+/– 599 mm

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LCP CONTROLS
MAIN, LOCAL, DIGITAL AND NETWORK

48V

400V

Product description

The LCP Control is a product of Interroll'sLight Conveyor Platform to take over the control and direction of our well-known Interroll 80SMP belt drive motor. A unique safety system is integrated and it provides a "Plug & Play" installation with the required safety system according with CE regulations.

It is available in4 product variants: Main Control, Local Control, Digital Control and Network Control. The Local Control CO6602 can only work together with Main Control CO6601 and is supplied in the secondary conveyors with the Main Control in the primary conveyor. The other two controls can be used directly as motor controls.

The LCP Control has two operating modes: Stand-Alone mode and PLC mode. In Stand-Alone mode, the control drives the motor and operates on its own with integrated logic control. In PLC mode, the control is controlled external by a PLC.

There are two ways to work with the PLC: use direct digital I/O with Digital Control CO6603 or use Network Control CO6604, which is controlled directly by the PLC via PROFINET, Ethernet/IP or EtherCAT. In PLC mode, the safety function with emergency stop is not available.

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Technical data

Model	Main Control CO6601	Local Control CO6602	Digital Control CO6603	Network Control CO6604
Function				
Description	Power motor control with integrated safety system for stand-alone solutions	Motor control with internal network	Power motor control with digital I/O for PLC solutions	Power motor control with network communication for PLC solutions
Power				
Input voltage	380 - 480 V AC	-	380 - 480 V AC	380 - 480 V AC
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input phases	3	-	3	3
Max. power consumption	150 - 880 W **	150 - 660 W	150 - 1,320 W	150 - 1,320 W
Max. current consumption	0.5 - 2 A	0.5 - 2 A	0.5 - 3 A	0.5 - 3 A
Main fuses	3,15 A (glass fuse)	-	3,15 A (glass fuse)	-
Motor fuses	2 A (manual reset)	2 A (manual reset)	2 A (manual reset)	2 A (manual reset)
Motor voltage supply	380 - 480 V AC	-	380 - 480 V AC	380 - 480 V AC
Motor frequency	50/60 Hz	50/60 Hz	50/60Hz	50/60 Hz
Motor phases	3	-	3	3
Motor max. power output	120 W	-	120 W	120 W
Softstart ramp	Yes	Yes	Yes	Yes
Output voltage	380 - 480 V AC	-	380 - 480 V AC	380 - 480 V AC
Output frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output phases	3	-	3	3
Environment				
Operating temperature	0 - +40 °C	0 - +40 °C	0 - +40 °C	0 - +40 °C
Max. relative humidity while operating	93 %	93 %	93 %	93 %
IP Class	IP22	IP22	IP22	IP22
CE approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes

* Bus standard: ProfiNet, EtherNet/IP, EtherCat

** The maximum power consumption of 880 W refers to 1 Main Control and 3 Local Controls.

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LCP CONTROLS
MAIN, LOCAL, DIGITAL AND NETWORK

48V

400V

Variants

Variants	Main	Local	Digital	Network
Product model	CO6601	CO6602	CO6603	CO6604
Main power switch	×			
Emergency stop button	×			
Works in stand-alone mode	×	×		
Integrated safety function	×	×		
Works in PLC mode via digital I/O			×	
Works in PLC mode via Fieldbus (e.g. ProfiNet)				×

Dimensions

	Main Control CO6601	Local Control CO6602	Digital Control CO6603	Network Control CO6604
Weight	1,320 g	1,320 g	1,320 g	1,320 g
Width	177 mm	177 mm	177 mm	177 mm
Height	53 mm	53 mm	53 mm	53 mm
Depth	265 mm	265 mm	265 mm	265 mm

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COMPETENCE CENTER

The Interroll Competence Center in Hvidovre (near Copenhagen) COE Commercial Belt Drives & Conveyors concentrates on drum motors and belt conveyors for retail and light industrial use. In this product sector, the company is responsible within the global Interroll Group for all technical concerns ranging from development and application engineering to production and support for local Interroll companies.

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LEGAL NOTICES

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About Interroll

The Interroll Group is a globally leading provider of solutions for material handling. The company was founded in 1959 and has been listed on the SIX Swiss Exchange since 1997. Interroll supplies system integrators and machine builders with a broad product range of platform-based products and services in the categories "Rollers" (conveyor rollers), "Drives" (motors and drives for conveyor systems), "Conveyors & Sorters" as well as "Pallet & Carton Flow" (flow storage systems). Solutions from Interroll are used by express and postal services, in e-commerce, in airports and in the areas of food & beverage, fashion, automotive and other industries. The company counts leading brands, such as Amazon, Bosch, Coca-Cola, DHL, Nestlé, Procter & Gamble, Siemens, Walmart, or Zalando, among its users. With its headquarters in Switzerland, Interroll features a worldwide network of 35 companies with roughly 2,600 employees (2021).

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