easy ...CONVEYORS

LOGIC ...CONVEYORS by Easy Conveyors

CATALOGUE
Conveyor modules

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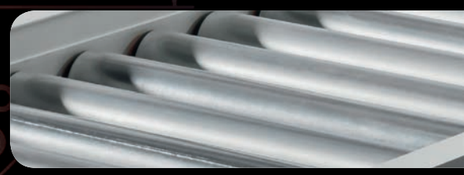

2016 Version 16.1

THE LOGICAL WAY...
OF SOLVING YOUR MATERIAL HANDLING NEEDS

Easy Conveyors bv

With over 25 years of manufacturing experience, Easy Conveyors specialize in the design and development of modular components for the production of Belt conveyors, Table-top conveyors, Mat-top conveyors and Roller conveyors, all products are designed and developed using "modular" engineering technologies and specialized in the markets of Warehousing, pick and place and Logistics for system integrators and material handling companies.

LOGIC ...CONVEYORS
by Easy Conveyors

Quality with innovative solutions
At Easy Conveyors we believe in delivering precision products, there is no compromise in the quality of our products and services. We make it Easy Conveyors business to understand your needs and requirements, this understanding ensures our commitment to research and development in seeking technological advances enabling your business to maintain a competitive advantage while delivering customer value and maximum flexibility in material handling logistics.

Today's dynamic environment requires businesses constantly evolve with new technologies and customer requirements. With this in mind, Easy Conveyors are designed and manufactured to maximize your investment and optimize the unlimited potential of your business.

Business Efficiency
All businesses depend on their bottom line results, bottom line efficiency and total cost of ownership and return on investment are Easy Conveyors priorities, we continuously set and raise the benchmark to meet the requirements and budgets of a broad sector of industries.

We work toward optimizing results for businesses with cost-efficient systems that provide you with…

01 Fast layout capability
02 Minimal component variation
03 Design simplicity
04 Effective space utilization
05 Enhanced productivity
06 Low maintenance
07 User-friendliness

DEMO3D

Strategic Partners
Easy Conveyors are available worldwide through a network of Strategic Partners (or System integrators and material handling companies) our partners have the engineering resources and expertise to provide complete systems and integration solutions.

Easy Conveyors and components are distributed from our major stocking facilities in Europe, North America, Australia and Asia, this inventory commitment ensures efficient shipment of your orders.

Online Configurator
Easy Conveyors online configurator allows you to configure your specific conveyor online by answering a few questions. The configurator generates your conveyor which you can download in the CAD file format selected.

TRY OUT ON OUR WEBSITE
www.easy-conveyors.com

ALSO AVAILABLE
CATALOGUE 2015
Components & Systems

EBS System
Belt Conveyors

ETS System
Table Top Conveyors

EMBS System
Mat Top Conveyors

EMCS System
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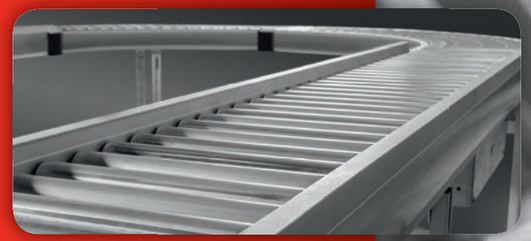
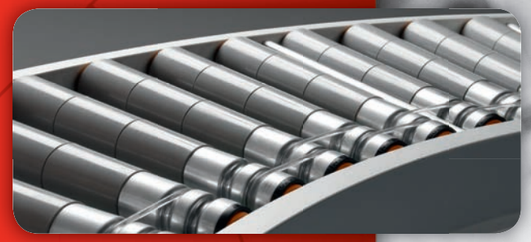
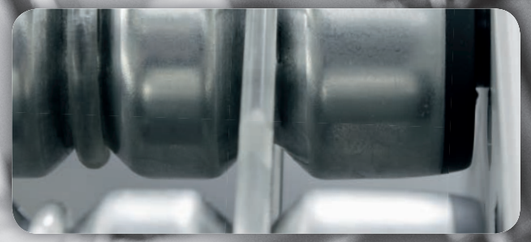
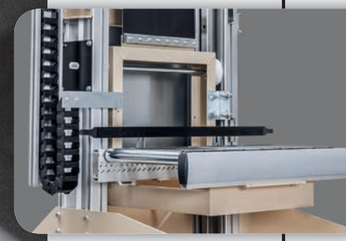
CATALOGUE CONTENT

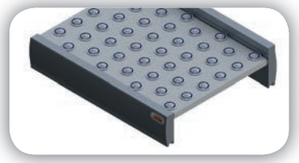








ROLLER CONVEYOR
GRAVITY ERS 50



CONVEYING WITHOUT A DRIVE

Simple

Logic gravity roller conveyors transports products manually or by gravity via decline, they are used for assembly and picking lines, they include straight and curved sections, ball tables with ball rollers, they complement integrated systems.

Flexible and easy to us

Logic gravity Roller Conveyor are supplied in modular form and can be combined with all other Logic Conveyors in this catalogue.

LOGIC CONVEYORS by Easy Conveyors

Available for DEMO3D

www.easy-conveyors.com

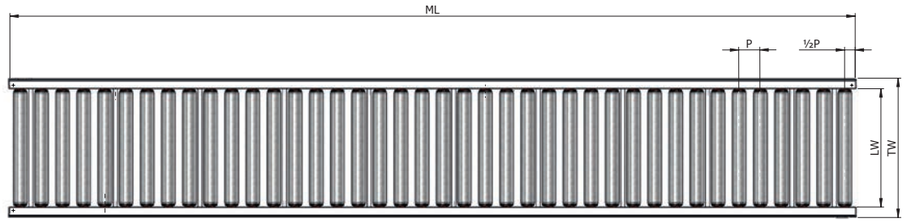
GRAVITY ROLLER CONVEYOR ERS 50

The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 - .....

3 Roller pitch P in mm
A 75 | 100
B 125

4 Module length ML in mm
A min 300 mm, numbers of rollers x P, max 3000 mm
B min 375 mm, numbers of rollers x P, Max 3000 mm

5 Side profiles
HH | HL | LH | LL

1		2		3		4		5
50	-		-		-		-	

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 3000 - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

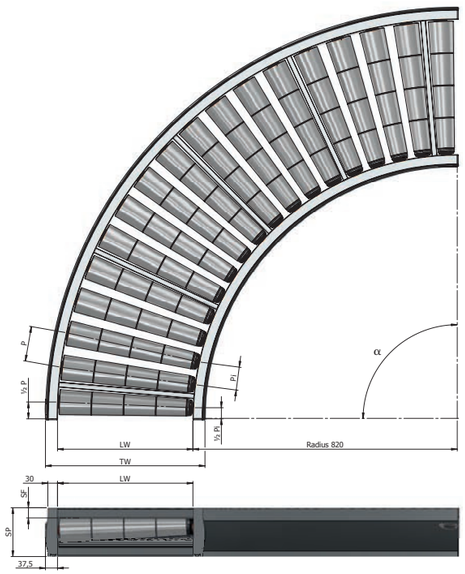
GRAVITY ROLLER CONVEYOR CURVE ERS 50

Gravity roller conveyor curves change the direction of transport of material. Material is manually pushed around the curve. The alignment of the material is maintained within the side frames by tapered rollers.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, with grey tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	18 at 90° 12 at 60° 9 at 45° 6 at 30°
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50

2 Clearance LW
420 | 520 | 620 | 820

3 Angle α
30° | 45° | 60° | 90°

4 CCW = counter clock wise
CW = clock wise

5 Side profiles
HH | HL | LH | LL

1	2	3	4	5
50				

ORDER EXAMPLE

Example for a reference number:
50 - 620 - 90 - CW - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 620 mm and an angle of 90°, product flow CW and both sides high side profile.

ORDER INFORMATION

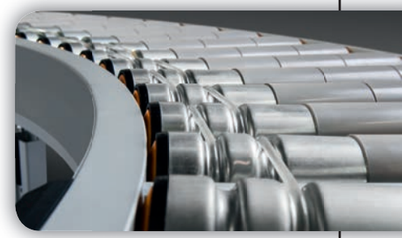
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

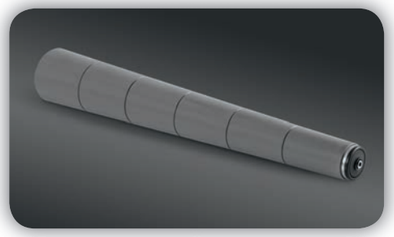
CONFIGURATOR

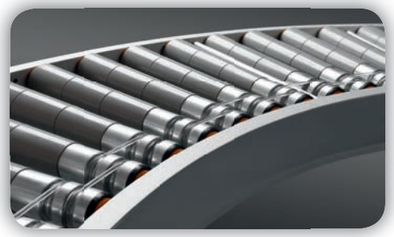
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102







LOGIC CONVEYORS

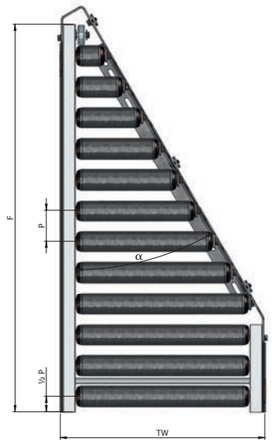
GRAVITY INFEED ROLLER CONVEYOR ERS 50

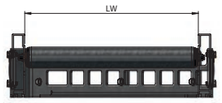
The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
F Max. module length	See application notes P90
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Infeed position
LH | RH

6 Infeed
I

7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
50	-	-	-	-	I	-	-	-

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 30 - I - LH - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, an angle of 30°, infeed, a left hand infeed and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

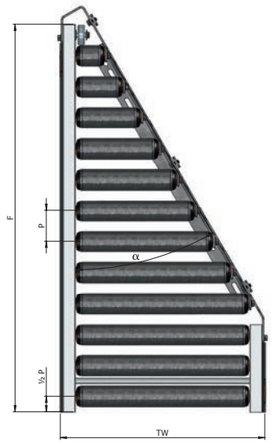
GRAVITY OUTFEED ROLLER CONVEYOR ERS 50

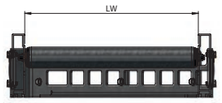
The gravity, straight roller conveyor transports material either manually or over a gradient via gravity. It is mostly used for assembly and picking lines as well as for dynamic storage systems.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
F Max. module length	See application notes P90
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Outfeed position
LH | RH
LH RH

6 Outfeed
O

7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
50	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
50 - 420 - 100 - 30 - O - LH - HH

This reference number stands for Gravity Roller Conveyor ERS 50 with a clearance LW 420 mm, a roller pitch P 100 mm, an angle of 30°, oufeed, a left hand outfeed and both sides high side profile.

ORDER INFORMATION

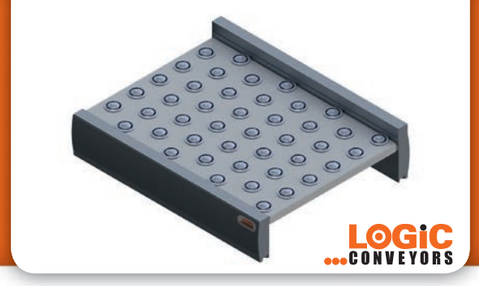
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

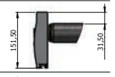
- Support stands, see P92
- Accessoires, see P102



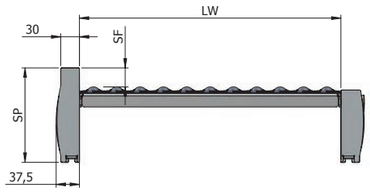
GRAVITY BALL TABLE ERS 50A

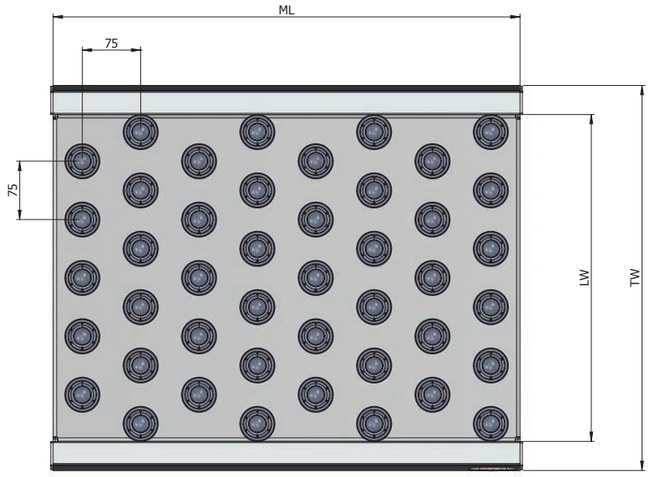
The ball table enables material to be moved horizontally in any direction with very little force. It is especially suitable for workstation and inspection areas. The ball units are fitted into a sub frame assembled to standard aluminium side profiles to allow the ball table section to be easily integrated into a conveyor system.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Inclined/declined	Suitable for decline
Ambient temperature	-5 to +50 °C
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller 
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller 
Combination of profile heights left/right	HH  HL  LH  LL 

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
Pitch	75 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 50A

2 Clearance LW
420 | 520 | 620 | 820

3 Module length ML in mm
min. 300 till 3000 mm with steps of 300 mm

4 Side profiles
HH | HL | LH | LL

1		2		3		4
50A	-		-		-	

ORDER EXAMPLE

Example for a reference number:
50A - 620 - 900 - HL

This reference number stands for Gravity Ball Table ERS 50A with a clearance LW 620 mm, a module length ML 900 mm and side profiles with dimensions of 151,5/116 mm.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

ROLLERDRIVE CONVEYOR
ERS 51

NON-CONTACT CONVEYING AND SEPARATION WITH CENTRAL CONTROL

Simple and economical	Logic roller conveyors with Roller Drive are characterized by especially low-noise and economical conveying. With control via PLC, the RollerDrive Conveyor offers maximum flexibly.
Low-noise	Quiet operation when running without materials < 60 dB(A) with 24 VDC.
Plug and play	Ready for installation and use with pre-configured modules.

LOGIC CONVEYORS by Easy Conveyors

Available for DEMO3D

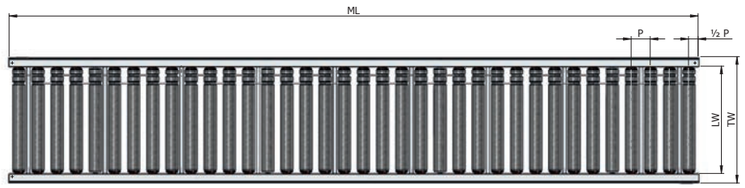
ROLLERDRIVE CONVEYOR ERS 51

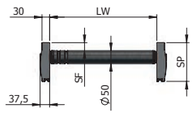
The RollerDrive Conveyor is used with a PLC as transport storage conveyors or zero accumulation pressure storage conveyors. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overload. Each RollerDrive is connected via PU round belts or PolyVee belts to the idlers.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 - .....

3 Roller pitch P in mm
A 75 | 100
B 125

4 Module length ML in mm
A min 300 mm, numbers of rollers x P, max 3000 mm
B min 375 mm, numbers of rollers x P, Max 3000 mm

5 Number of zones
See Application Notes, P118

6 Electric side
Right | **R** / Left | **L**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
51	-	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
51 - 620 - 125 - 2375 - 4 - R - R - 0,33 - HH

This reference number stands for RollerDrive Conveyor ERS 51 with a clearance LW 620 mm, a roller pitch P 125 mm, a module length ML 2375 mm, 4 zones, the electric side on the right, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

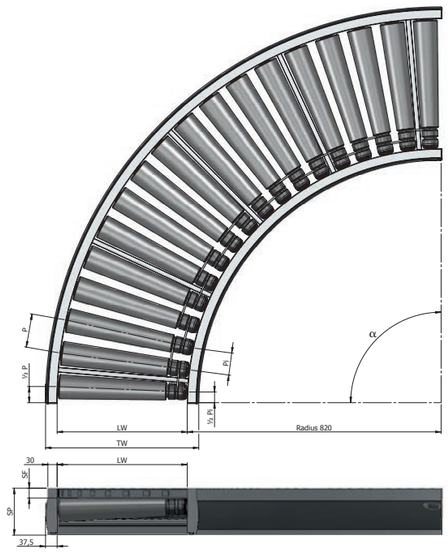
ROLLERDRIVE CONVEYOR CURVE ERS 51

The roller conveyor curves change the direction of transport of material. The alignment of the material is maintained within the side frames by tapered rollers. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overloads.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, with grey tapered polypropylene sleeves	Steel, with grey tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	9	9
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820

3 Angle α
30° | 45° | 60° | 90°

4 Number of zones
1
2 (only 90°)

5 Drive medium
Round belt | **R**
PolyVee belt | **P**

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

7 CCW = counter clock wise
CW = clock wise

8 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8
51	-	-	-	-	-	-	-

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

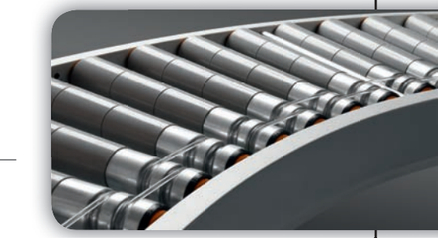
ACCESSOIRES

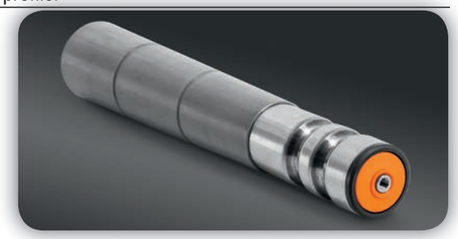
- Support stands, see P92
- Accessoires, see P102

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 90 - 2 - R - 0,65 - CW - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, an angle 90°, 2 zones, a round belt as drive medium and a conveyor speed of 0.65 m/s, product flow CW and both sides high side profile.





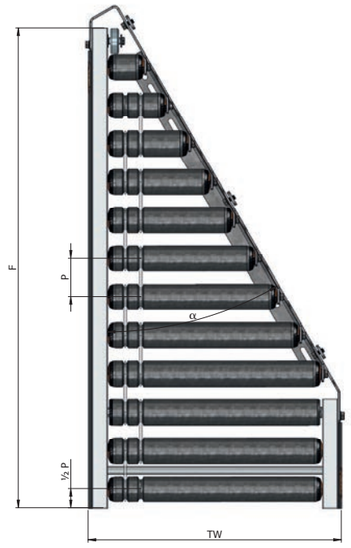
ROLLERDRIVE CONVEYOR INFEED 51

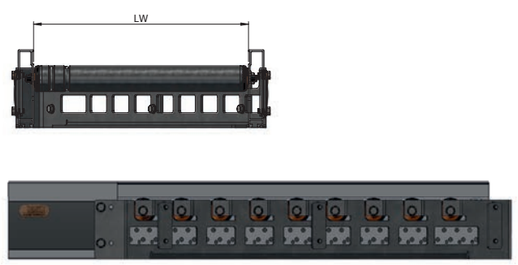
The RollerDrive Merge Roller Conveyor infeed two conveyor lines together. The zones of the infeed roller conveyor are directly and independently controlled by the PLC.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P90
α Angle	30° / 45°
P Roller pitch	75 / 100 / 125 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Infeed
I

6 Infeed position
Left hand | **LH**
Right hand | **RH**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
51	-	-	-	-	I	-	-	-	-	

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 75 - 30 - I - RH - R - 0,33 - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, a roller pitch P 75 mm, an angle of 30°, infeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0,33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side glides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- For ML Module Lengths see application notes P122
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

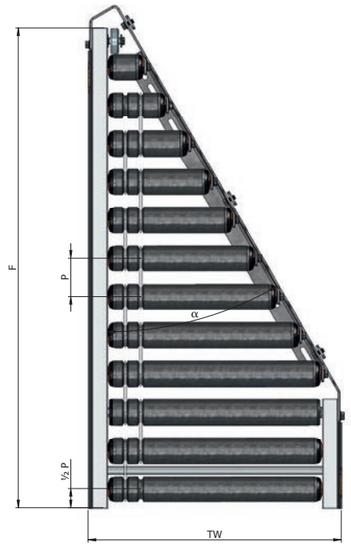
ROLLERDRIVE CONVEYOR OUTFEED 51

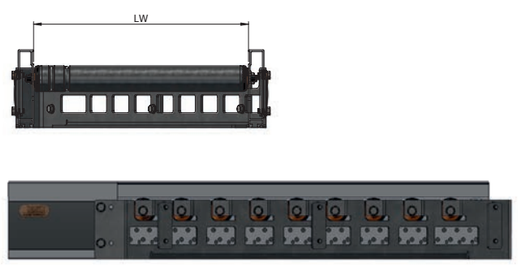
The RollerDrive Merge Roller Conveyor outfeed two conveyor lines together. The zones of the outfeed roller conveyor are directly and independently controlled by the PLC.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P90
α Angle	30° / 45°
P Roller pitch	75 / 100 / 125 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Outfeed
O

6 Outfeed position
Left hand | **LH**
Right hand | **RH**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
51	-	-	-	-	0	-	-	-	-	

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 75 - 30 - O - RH - R - 0,33 - HH

This reference number stands for 24 VDC RollerDrive Conveyor ERS 51 with a clearance LW 420 mm, a roller pitch P 75 mm, an angle of 30°, outfeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0,33 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side glides, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- For ML Module Lengths see application notes P122
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

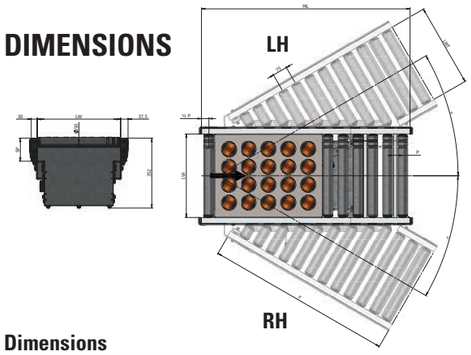
ROLLER DRIVE CONVEYOR DIVERTER ERS 51

The Smart Conveyor diverter diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,00 m/s	0,16 to 1,00 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0,05Kw	0,05Kw
Drive medium	Round belt	Poly-V belt
Torque transmission	Roller-to-roller	Roller-to-roller
Motion Control		
Motion medium	24V actuator or Pneumatic	24 V actuator or Pneumatic
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module length	2400 mm
TW Module width	LW + 75 mm
α Angle	45°
P Roller pitch	75 / 100 / 125 mm
F Face lenght	See Application Notes P90
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 - .....

3 Clearance LWT
420 | 520 | 620 | 820 (max. LWT = LW + 200 mm)

4 Angle α
24 V and Pneumatic **30°** or **45°**
24 V only **30°|45°** or **45°|45°** or **45°|30°**

5 Roller pitch P in mm
75 | 100 | 125

6 Diverter	**24 V**	**Pneumatic**
Left hand	**LH**	**PLH**
Right hand	**RH**	**PRH**
Left/Right hand	**LRH**	

7 Drive medium

Round belt	**R**
PolyVee belt	**P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
51 -		-		-		-		-		-		-		-		-		-	

ORDER EXAMPLE

Example for a reference number:
51 - 420 - 420 - 45 - 75 - PRH - R - 0,33 – HH

This reference number stands for Smart Conveyor Popup Transfer ERS 52 with a clearance LW 420 mm, a LWT 420 mm, an angle of 45°, a roller pitch P 75 mm, a pneumatic right hand diverter, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.
Depending on the layout the roller drive diverter can divert op to a max of 1500 prod/hour.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

LOGIC CONVEYORS

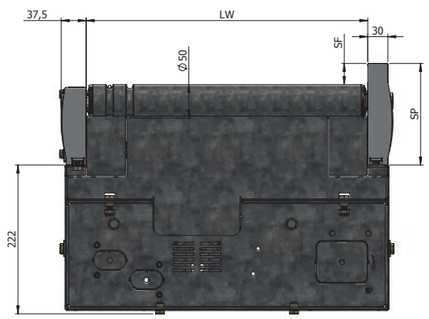
ROLLER DRIVE CONVEYOR BELT TRANSFER ERS 51

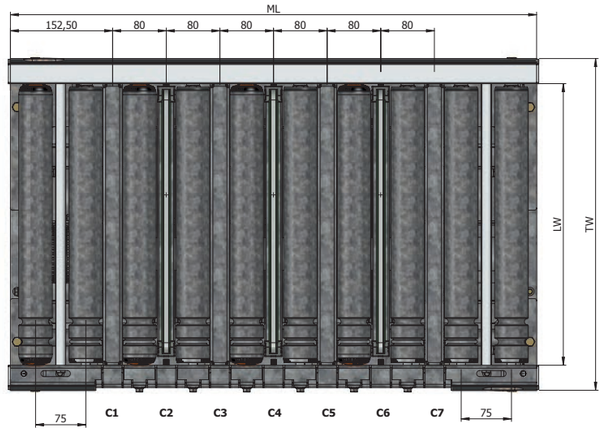
The Smart Conveyor 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

TECHNICAL DATA

General technical data	
Max. load capacity	50 kg
Conveyor speed	0,1 to 1,75 m/s
Transfer speed max	0,98 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Drive medium	Poly-V
Torque transmission	Roller-to-roller
Lifting gear	
Operating medium	Compressed air in accordance with ISO8573-1:2010 (7:4:4)
Operating pressure	0,6 ... 10 bar
Piston diameter	50 mm
Drive transfer	
Rated voltage (RollerDrive)	24 VDC
Max. electrical power per zone	0.05 Kw
Power transmission transfer	Toothed belt T5
Stroke height	9 mm above top edge of roller

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	785 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 51

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 51 - 420F - 75 - .....

3 TYPE
T1

4 Amount of cassette (n)
2 | 3 | 4 | 5

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 80 mm

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

8 Transfer speed in m/s
0,36 | 0,55 | 0,73 | 0,98

9 Side profiles
HL | LL | LH

1		2		3		4		5		6		7		8		9
51	-		-		-		-		-		-		-		-	

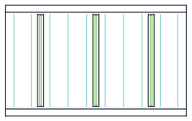
ORDER EXAMPLE

Example for a reference number:
51 – 620 – T1 – 3 – C2 – 2 – 0,65 – 0,98 – LL

This reference number stands for logic transfer ERS 52 with a clearance LW of 620 mm, type T1 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), conveyor speed 0,65 m/s, transfer speed 0,98 m/s and low side profile both sides.

Depending on the layout the diverter can divert op to 1800/hour

T1



ORDER INFORMATION

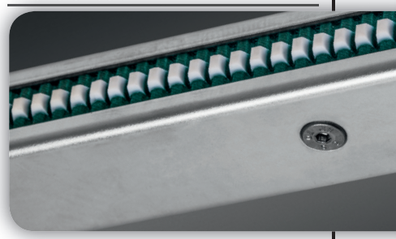
- Module is completely assembled with control and sensors
- Please order support stands, side-guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

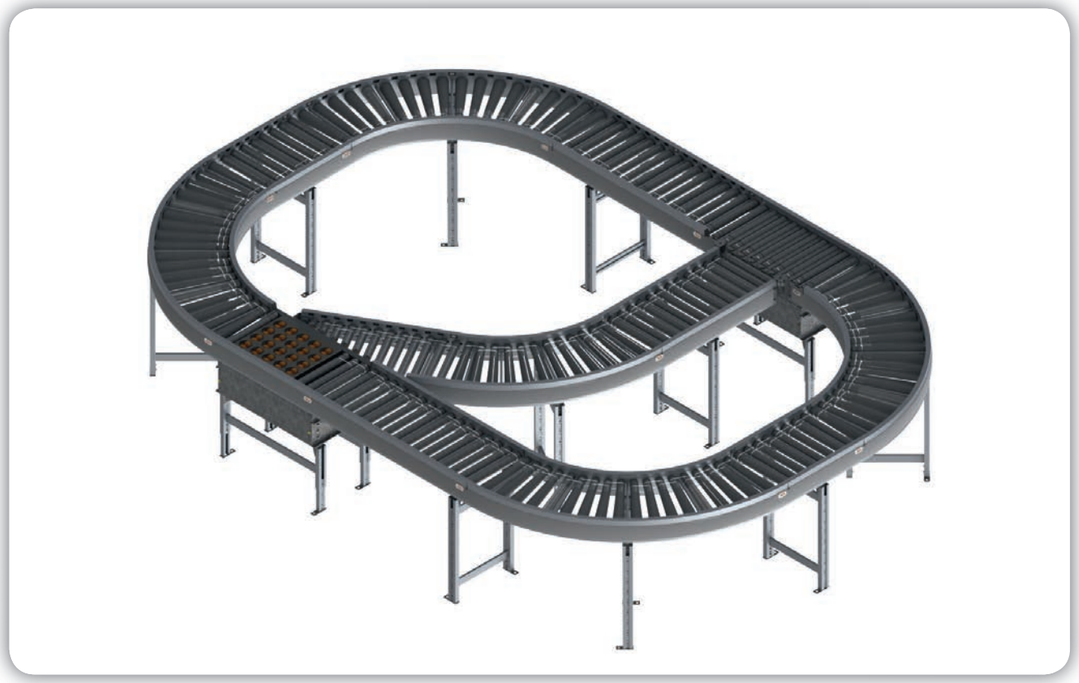
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P94
- Accessoires, see P102
- With order supply the Pitch of the transfer belt



SMART CONVEYOR
ERS 52



THE SMART INTELLIGENT MODULAR SYSTEM

Smart The internal control of the Smart Conveyor, with its integral control card, transforms a roller conveyor into an intelligent self-contained conveyor that assigns each transport material its own drive zone in the flow. Depending on system complexity a superior control system can be required.

Low-noise Quiet operation when running without materials < 60 dB(A) with 24 VDC.

Zero accumulation pressure transport The transported unit load is stopped at the end of a zone when the downstream zone is occupied. Unit loads do not touch and are accumulated with zero accumulation pressure when required.

Plug and play Ready for installation and use with pre-assembled modules from the flexible Smart Conveyor modular system.

LOGIC CONVEYORS by Easy Conveyors

Available for DEMO3D

www.easy-conveyors.com

SMART CONVEYOR MEET THE MARKET DEMANDS OF SMART CONVEYING BY USING MODULAR INTELLIGENT SYSTEMS

SMART CONVEYORS - THE SMART INTELLIGENT MODULAR SYSTEM

As an intelligent conveyor with integrated accumulating conveyor technology, the Logic Smart Conveyors simplifies unit-load handling. The internal control Card, converts a roller track into a single space conveyor which allocates each material to be conveyed in its own zone along the material flow.

Unit loads can be buffered without contact and transported further as required to achieve an overall continuous material flow. With a well-developed, economic concept, the ready to connect roller track modules offer a complete range of customer advantages.

During the planning phase:
- Individual and flexible routing options based on a complete modular system fromstraights to 45° high performance diverters
- Simple planning of conveyor lines from the modular system
- Simple connection to adjoining conveyor technology

During the implementation phase:
- Fast delivery
- Quick and easy installation
- Ready for installation and use thanks to pre-fabricated modules (“plug and play”)

During operation:
- Approx. 50 % energy saving (depending on operating mode up to 70%) com - pared with conventional accumulating conveyors
- Extremely quiet operation (< 60 dBA)
- Maximum safety thanks to 24 Volt low voltage
- High availability
- Low maintenance
- Extendable and adaptable to future growth

LOGIC ...CONVEYORS by Easy Conveyors

Connecting conveyor modules from the Logic range of the Smart Conveyors has modular advantages and can be extended at any time with other Logic products.

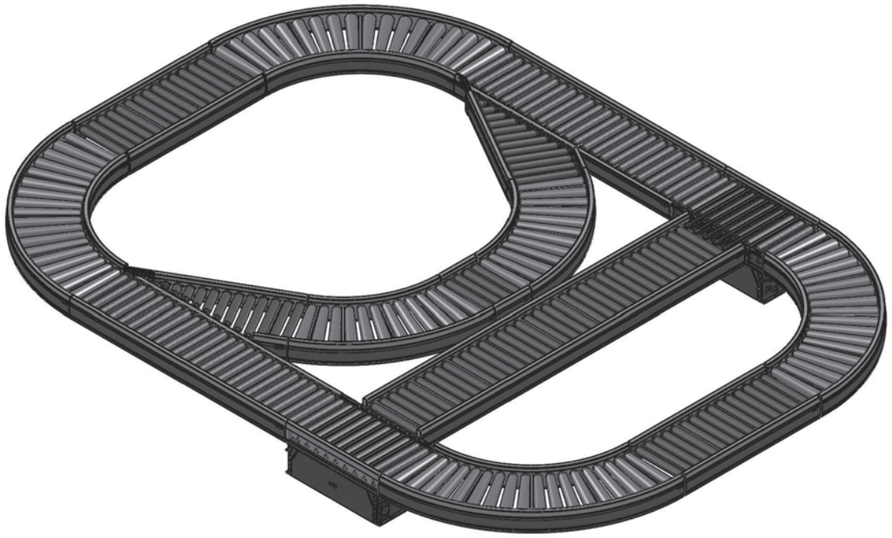
Roller conveyor modules, curves, diverters, merge modules, transfers and Transportation positioning modules for material handling of light to heavy corrugated boxes, crates and packages are available, depending on the drive and transmission belts, for loads up to 175lbs (80 kg per zone).

Easy Conveyors supports customers around the world through a network of Strategic Partners:

- System Integrators
- System Manufacturers
- Material Handling Companies
- Original Equipment Manufactures
- Engineering and Consulting Firms
- Operations and Distribution Centre’s
- Strategic Industries and Markets

www.easy-conveyors.com

SMART CONVEYOR
INTELLIGENT CONVEYING
EXPLAINED IN AN UNCOMPLICATED WAY

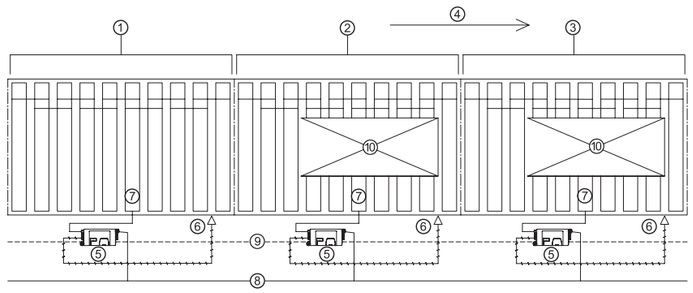


Smart Conveyor – this name represents a complete conveyor system that enables unit loads to be conveyed and accumulated with zero pressure, i.e. without ever touching each other.

Smart Conveying is achieved by utilizing Smart-Control Technology, a proven 24 Volt control PCB. Control of the conveyor line is managed by dividing into individual zones and communicating along the material flow.

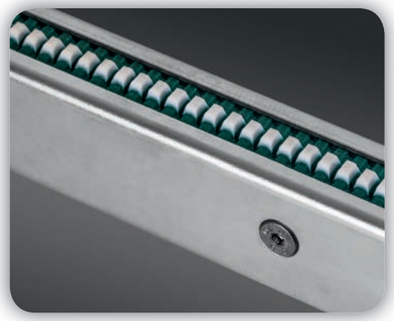
During the operation of the system each Smart Control card operates its assigned drive zone according to the condition of the adjacent zones, automatically.

The Smart Conveyor system is designed as a decentralised, intelligent control in such a way that with the modular principle a complete system can be constructed and also simply extended later if required.



Wiring diagram for ZoneControl for 3 conveyor zones

1 Zone 1
2 Zone 2
3 Zone 3
4 Conveyor direction
5 ZoneControl
6 Zone sensor
7 RollerDrive
8 +24 V DC voltage supply
9 Peer-to-peer connection
10 Material to be conveyed



LOGIC ...CONVEYORS
by Easy Conveyors

Visualizing the principal functions of Smart Conveyors in demonstrating one single zone.

Build-up of one zone:

- 1 Roller Drive
- 8 Slave rolls
- 1 Photo cell kit

Given the number of different variations, stocking of spare parts is minimized.

Energy savings are achieved through ‘Run-on-demand’ operation by the Smart Control card. Conveying only takes place when a conveying movement is actually necessary.

When there are no materials to be conveyed in the zone, the system switches off until the next pulse is received, this can result in energy savings up to 70 %.

www.easy-conveyors.com

SMART-CONTROL AND ROLLERDRIVE 24 VDC THE HEART OF THE SMART CONVEYOR

Each conveyor line of the Logic Smart Conveyor is divided into zones, which are adapted to the maximum length of the material to be conveyed.

Each zone has:
- 1 x RollerDrive
- Rollers driven by belts (O-rings or Poly-Vee belts)
- 1 x Conveyor Smart control
- 1 x Photo cell kit

A pre-assembled conveyor unit (module) consists of 1-4 zones complete with wiring. This enables easy plug and play connectivity with other modules.

Because less really can be more, the Logic Smart Conveyor does not use conventional external drive components but at the same time increases the safety of the operator thanks to a low power supply of 24 Volts.

At the beginning of a roller track section there is an additional photo cell to start the conveyor track.

The Logic Smart Conveyor has two operating modes: singulation release and train release (see photo on the right).

Slave rollers can be connected to the Roller Drive by different methods, for example with O-rings.

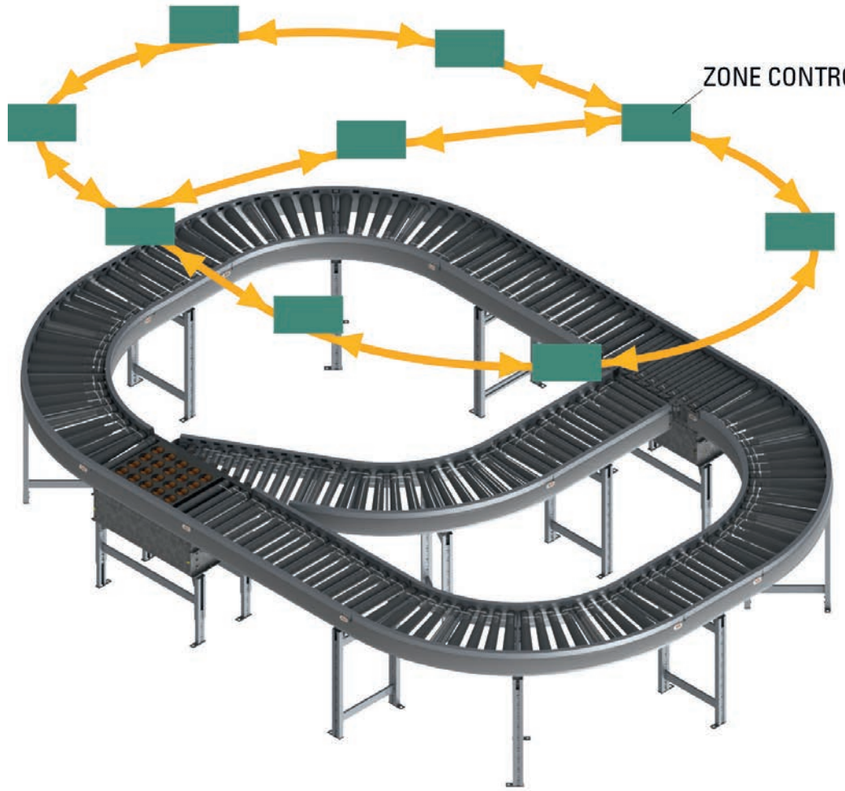
Poly-V belts are another drive option, they are used for conveying higher loads on straight and curved modules.

Single Release:
In the “Singulation release mode” each drive zone is activated in turn one-by-one. Each product must leave its drive zone before the next product is allowed to move.

This mode also reduces the overall power consumption of the conveyor line as the start-up power of each drive zone occurs only one at a time.

Train Release:
In the “Train release mode” several zones can be configured to start up simultaneously to transport several products together like a train. This can increase throughput of product by reducing the indexing time between each product. This mode demands a little higher startup power but only for those zones that need to start together.

COMMUNICATION WITHIN THE SMART CONVEYOR PLUG AND PLAY



Standard communication

All Zone Control exchange information within the Smart Conveyor via a pre-installed data cable.

Every Smart-Card communicates with its adjacent zones via a 4-wire data cable. This cable transmits signals to start, stop, detect errors or conduct certain control procedures along the conveying system.

This connection is a real plug and play connection and therefore insures immediate function without specific addressing. For connection to external systems, every Zone Control has four connections for incoming and outgoing signals.

Among others these are used for the following requirements:

- Transfer of materials to be conveyed to third-party systems
- Influencing the merging and diverting behaviour of the modules
- Issue of an error signal

LOGIC ...CONVEYORS by Easy Conveyors

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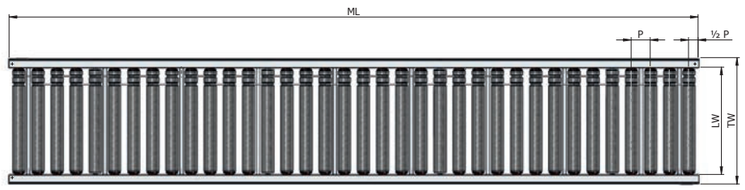
SMART CONVEYOR ERS 52

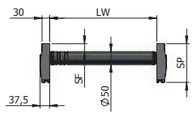
The internal control of the roller conveyor ensures transport of unit loads with zero accumulation pressure. Each zone is driven by a RollerDrive, and is connected via round or PolyVee belts with a specified number of idlers.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	max. 3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 - .....

3 Roller pitch P in mm
A 75 | 100
B 125

4 Module length ML in mm
A min 300 mm, numbers of rollers x P, max 3000 mm
B min 375 mm, numbers of rollers x P, Max 3000 mm

5 Number of zones
application notes, P118

6 Electric side
Right | **R** / Left | **L**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
52	-	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
52 - 420 - 100 - 2100 - 4 - R - R - 0,25 - HH

This reference number stands for Smart conveyor ERS 52 with a clearance LW 420 mm, a roller pitch P 100 mm, module length ML 2100 mm, 4 zones, the electric side on the right, a round belt as drive medium, a conveyor speed of 0.25 m/s and both sides high side profile.

ORDER INFORMATION

- Module is completely assembled with control and sensors
- Please order support stands, side guide, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

DEMO3D LOGIC CONVEYORS

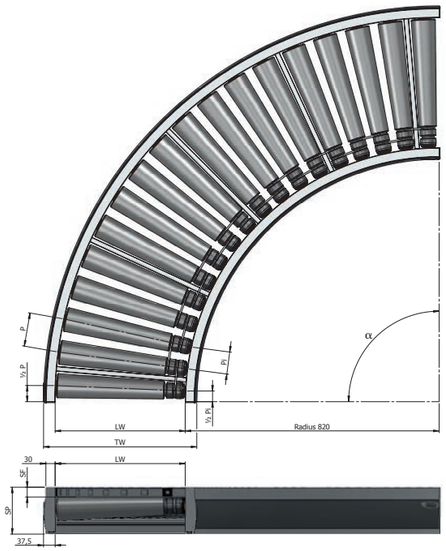
SMART CONVEYOR CURVE ERS 52

The roller conveyor curves change the direction of transport of material. The alignment of the material is maintained within the side frames by tapered rollers.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	50 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, with grey tapered plastic elements	Steel, with grey tapered plastic elements
Max. number of rollers per conveyor/zone	9	9
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch, external	~ (0.087 mm x LW) + Pi
Pi Roller pitch, internal	~ 72 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820

3 Angle α
30° | 45° | 60° | 90°

4 Number of zones
1
2 (only 90°)

5 Drive medium
Round belt | **R**
PolyVee belt | **P**

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

7 CCW = counter clock wise
CW = clock wise

8 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8
52	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
52 - 620 - 90 - 2 - R - 0,44 - CW - HH

This reference number stands for Smart conveyor ERS 52 with a clearance LW 620 mm, an angle 90°, 2 zones, a round belt as drive medium and a conveyor speed of 0.44 m/s, product flow CW and both sides high side profile.

ORDER INFORMATION

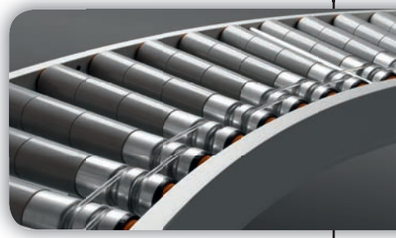
- Module is completely assembled with control and sensors
- Please order support stands, side guide, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102



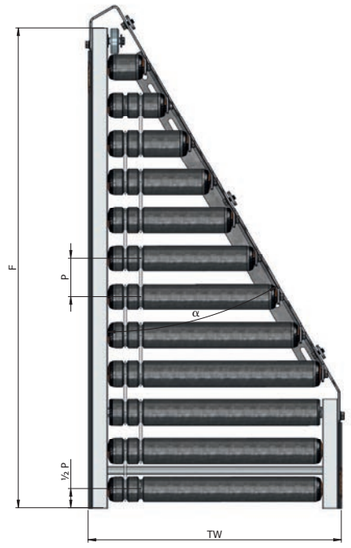
SMART CONVEYOR INFEED ERS 52

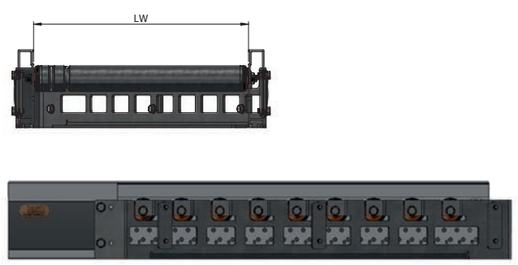
The Smart Conveyor Infeed Roller Conveyor merges two conveyor lines together using the gaps in the flow.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P90
α Angle	30° / 45°
P Roller pitch	75 / 100 / 125 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 50 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Infeed
I

6 Infeed position
Left hand | **LH**
Right hand | **RH**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
52	-	-	-	-	I	-	-	-	-	

ORDER EXAMPLE

Example for a reference number:
52 - 620 - 100 - 45 - I - RH - R - 0,16 -HH

This reference number stands for Smart Conveyor Transfer ERS 52 with a clearance LW 620 mm, a roller pitch P 100 mm, an angle of 45°, infeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0.16 m/s, and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- For ML Module Lengths see application notes P122
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

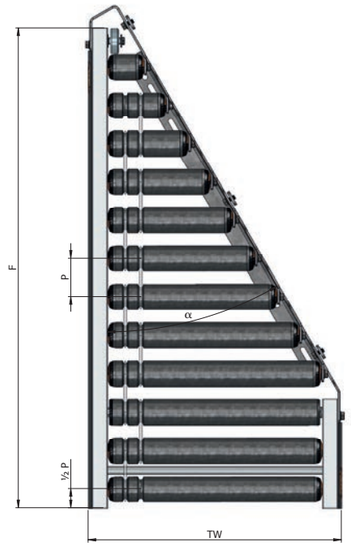
SMART CONVEYOR OUTFEED ERS 52

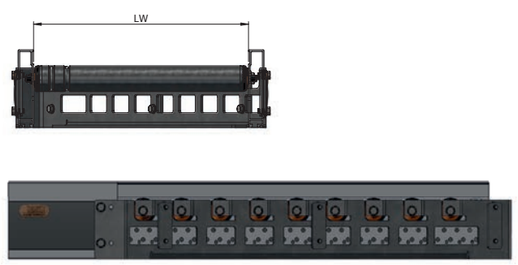
The Smart Conveyor Outfeed Roller Conveyor merges two conveyor lines together using the gaps in the flow.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	80 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11	20
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0.05 kW	0.05 kW
Drive medium	PU round belt ø 5 mm	PolyVee belt
Torque transmission	Roller-to-roller	Roller-to-roller
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F Face length	See application Notes P90
α Angle	30° / 45°
P Roller pitch	75 / 100 / 125 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100 | 125

4 Angle α
30° | 45°

5 Outfeed
O

6 Outfeed position
Left hand | **LH**
Right hand | **RH**

7 Drive medium
Round belt | **R**
PolyVee belt | **P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
52	-	-	-	-	0	-	-	-	-	

ORDER EXAMPLE

Example for a reference number:
52 - 620 - 100 - 45 - O - RH - R - 0,16 -HH

This reference number stands for Smart Conveyor Transfer ERS 52 with a clearance LW 620 mm, a roller pitch P 100 mm, an angle of 45°, outfeed, a right hand merge, a round belt as drive medium, a conveyor speed of 0.16 m/s, and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- For ML Module Lengths see application notes P122
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

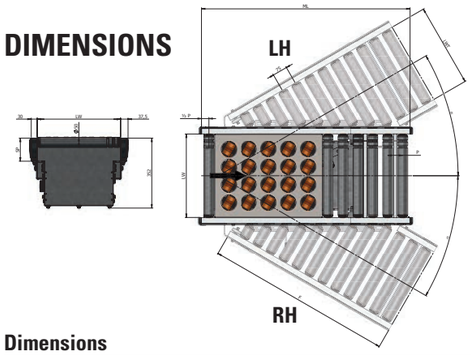
SMART CONVEYOR DIVERTER ERS 52

The Smart Conveyor diverter diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

TECHNICAL DATA

	Round belt	PolyVee belt
General technical data		
Max. load capacity	35 kg	50 kg
Conveyor speed	0,16 to 1,75 m/s	0,16 to 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision ball bearing 6002 2RZ	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Drive		
Rated voltage	24 VDC	24 VDC
Max. electrical power per zone	0,05Kw	0,05Kw
Drive medium	Round belt	Poly-V belt
Torque transmission	Roller-to-roller	Roller-to-roller
Motion Control		
Motion medium	24V actuator or Pneumatic	24 V actuator or Pneumatic
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module length	2400 mm
TW Module width	LW + 75 mm
α Angle	45°
P Roller pitch	75 / 100 / 125 mm
F Face lenght	See Application Notes P90
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 - .....

3 Clearance LWT
420 | 520 | 620 | 820 (max. LWT = LW + 200 mm)

4 Angle α
24 V and Pneumatic **30°** or **45°**
24 V only **30°|45°** or **45°|45°** or **45°|30°**

5 Roller pitch P in mm
75 | 100 | 125

6 Diverter	**24 V**	**Pneumatic**
Left hand	**LH**	**PLH**
Right hand	**RH**	**PRH**
Left/Right hand	**LRH**	

7 Drive medium

Round belt	**R**
PolyVee belt	**P**

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

9 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8	9
52 -		-		-		-		-		-		-		-		-		-	

ORDER EXAMPLE

Example for a reference number:
52 - 420 - 420 - 45 - 75 - PRH - R - 0,33 – HH

This reference number stands for Smart Conveyor Popup Transfer ERS 52 with a clearance LW 420 mm, a LWT 420 mm, an angle of 45°, a roller pitch P 75 mm, a pneumatic right hand diverter, a round belt as drive medium, a conveyor speed of 0.33 m/s and both sides high side profile.
Depending on the layout the diverter can divert op to 1500/hour.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

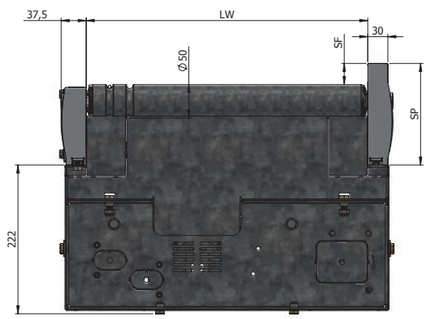
SMART CONVEYOR BELT TRANSFER ERS 52

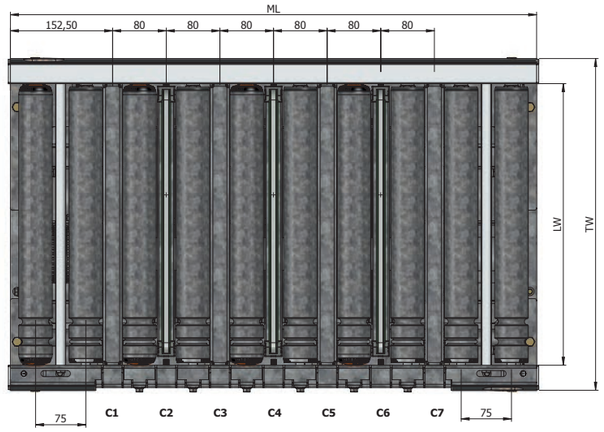
The Smart Conveyor 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

TECHNICAL DATA

General technical data	
Max. load capacity	50 kg
Conveyor speed	0,1 to 1,75 m/s
Transfer speed max	0,98 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Drive medium	Poly-V
Torque transmission	Roller-to-roller
Lifting gear	
Operating medium	Compressed air in accordance with ISO8573-1:2010 (7:4:4)
Operating pressure	0,6 ... 10 bar
Piston diameter	50 mm
Drive transfer	
Rated voltage (RollerDrive)	24 VDC
Max. electrical power per zone	0.05 Kw
Power transmission transfer	Toothed belt T5
Stroke height	9 mm above top edge of roller

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	785 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 52

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 52 - 420F - 75 - .....

3 TYPE
T1

4 Amount of cassette (n)
2 | 3 | 4 | 5

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 80 mm

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98 | 1,31 | 1,75

8 Transfer speed in m/s
0,36 | 0,55 | 0,73 | 0,98

9 Side profiles
HL | LL | LH

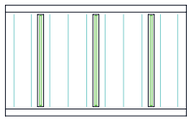
1		2		3		4		5		6		7		8		9
52	-		-		-		-		-		-		-		-	

ORDER EXAMPLE

Example for a reference number:
52 – 620 – T1 – 3 – C2 – 2 – 0,65 – 0,98 – LL

This reference number stands for logic transfer ERS 52 with a clearance LW of 620 mm, type T1 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), conveyor speed 0,65 m/s, transfer speed 0,98 m/s and low side profile both sides.
Depending on the layout the diverter can divert op to 1800 prod/hour

T1



ORDER INFORMATION

- Module is completely assembled with control and sensors
- Please order support stands, side guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

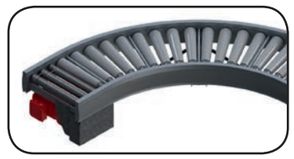
CONFIGURATOR

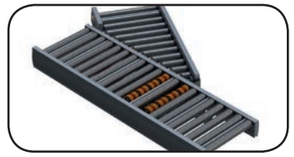
- If you require a non-standard model, contact your local Logic Supplier.

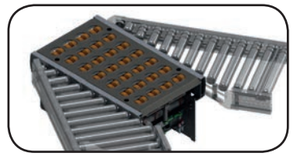
ACCESSOIRES

- Support stands, see P94
- Accessoires, see P102
- With order supply the Pitch of the transfer belt

BELT DRIVEN ROLLER CONVEYOR ERS 53







CONVEYOR SOLUTIONS FOR HEAVY GOODS

High loads with economy of use	The roller conveyors for heavy goods feature a fixed drive or a friction drive for low accumulation pressure conveying. Long conveyors lines can have a single motor drive
Transport of heavy loads	Loads with a weight of up to 250 kg are transported with ease
Plug and play	Ready for installation and use with pre-assembled modules

LOGIC CONVEYORS by Easy Conveyors

Available for DEMO3D

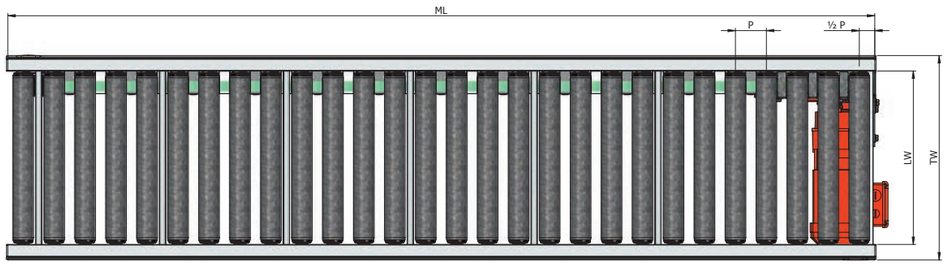
BELT DRIVEN WITH END DRIVE ERS 53

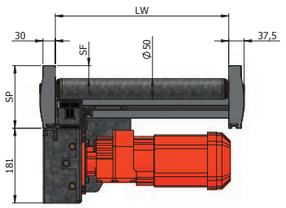
The ERS belt driven roller conveyor with end drive has been optimized to transport a great variety of product types. The ERS belt driven roller conveyor is the ideal device for highly dynamic applications that require gentle handling of for example cartons and totes. The flat belt drive guarantees a very low-noise operation.

TECHNICAL DATA

General technical data	
Max. load capacity	50 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,5 kW
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Roller pitch P in mm
A 75
B 100

4 Module length ML in mm
A min 600 mm, numbers of rollers x P, max 3000 mm
B min 625 mm, numbers of rollers x P, max 3000 mm

5 Drive postition
Right hand drive | **RH**
Left hand drive | **LH**

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
53E	-	-	-	-	-	-

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

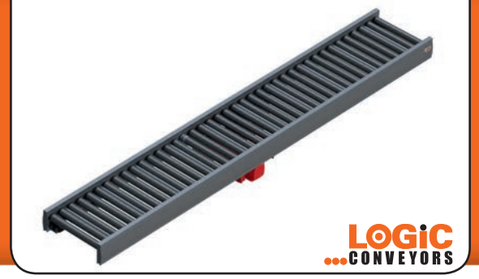
ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

ORDER EXAMPLE

Example for a reference number:
53E - 420 - 100 - 3000 - RH - 0,65 - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm, an end drive on the right, a conveyor speed of 0.65 m/s and both sides high side profile.



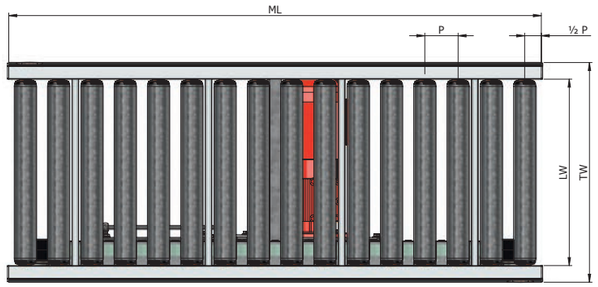
BELT DRIVEN WITH GENERAL DRIVE ERS 53

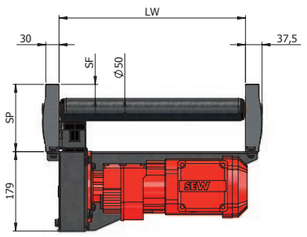
The ERS belt driven roller conveyor with general drive has been optimized to transport a great variety of product types. The general drive can be positioned on several positions into the section. The general drive options gives you the possibility to go for longer lengths and still have one drive unit. The ERS roller conveyor is the ideal device for highly dynamic applications that require gentle handling of products for example cartons and totes. The flat belt drive guarantees a very low-noise operation.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,1 kW
Drive medium	Belt
Torque transmission	Roller-to-roller
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 mm
SP Side profile	116 / 151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Roller pitch P in mm
75 | 100

4 Module length ML in mm
1200 mm till max 21000 mm, increments by roller pitch P in mm

5 Drive postition
Right hand drive | **RH**
Left hand drive | **LH**

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
53G	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
53G - 420 - 100 - 3000 - RH - 0,65 - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 100 mm, a module length ML 3000 mm, a general drive on the right, a conveyor speed of 0.65 m/s and both sides high side profile.

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

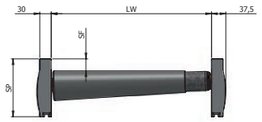
BELT DRIVEN CURVE ROLLER CONVEYOR ERS 53

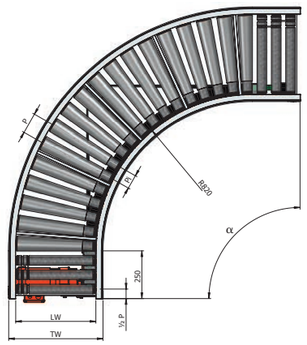
The ERS belt driven curve roller conveyor with end drive has been optimized to transport a great variety of product types. The ERS belt driven curve roller conveyor is the ideal device for highly dynamic applications that require gentle handling of products for example cartons and totes. The curved roller conveyor consists of precise tapered rollers, ensuring an accurate run-in or run-out and smooth curvilinear movement of products. The flat belt drive guarantees a very low-noise operation.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated with grey tapered polypropylene sleeves
Max. number of rollers per conveyor/zone	18 at 90° 12 at 60° 9 at 45° 6 at 30°
Drive	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,1 kW
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
α Angle	30° / 45° / 60° / 90°
P Roller pitch , external	~ (0.1 mm x LW) + Pi
Pi Roller pitch , internalt	~ 77 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
75 | 100

4 Angle α
30° | 45° | 60° | 90°

5 Drive position
Left hand drive | **LH**
Right hand drive | **RH**

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 CCW = counter clock wise
CW = clock wise

8 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8
53	-	-	-	-	-	-	-	-

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guid and straight connectors separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

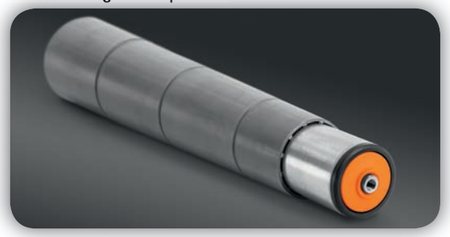
ACCESSOIRES

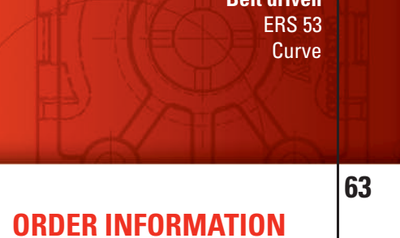
- Support stands, see P92
- Accessoires, see P102

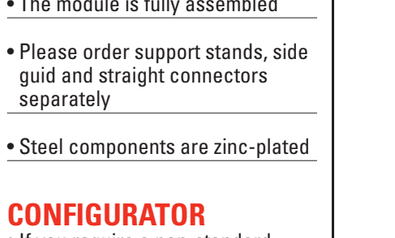
ORDER EXAMPLE

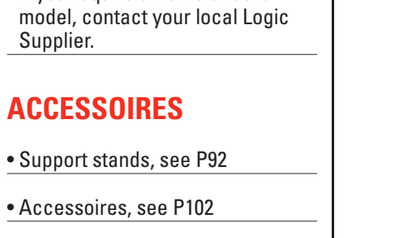
Example for a reference number:
53 - 620 - 75 - 90 - RH - 0,33 - CW - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 620 mm, a roller pitch P 75 mm, an angle of 90°, an end drive, right hand and a conveyor speed of 0.33 m/s, product flow CW and both sides high side profile.









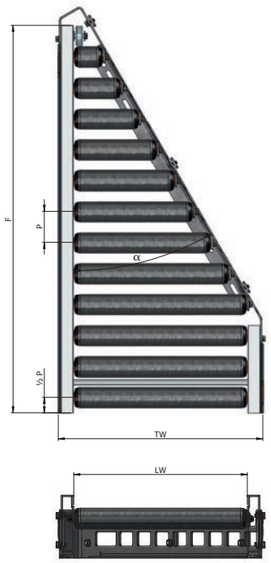
BELT DRIVEN INFEED ROLLER CONVEYOR ERS 53

The Logic Belt driven merges, merges two conveyor lines together.
The rollers are driven by belt.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	See Application Notes
Drive	
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F face Lenght	See Application Notes P90
α Angle	30° / 45°
P Roller pitch	75 | 100 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

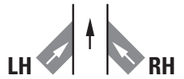
2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Pitch
75 | 100

4 Angle α
30° | 45°

5 Infeed
I

6 Drive position
Right hand drive | **RH**
Left hand drive | **LH**



7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
53	-	-	-	-	-	-
				I		

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

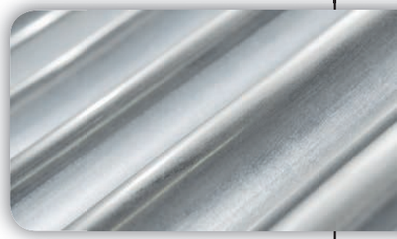
- Support stands, see P92
- Accessoires, see P102

This module is driven by the adjacent straight module.

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 75 - 30 - I - LH - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 75 mm, a infeed angle 30°, the drive medium on the left hand and both sides high side profile.



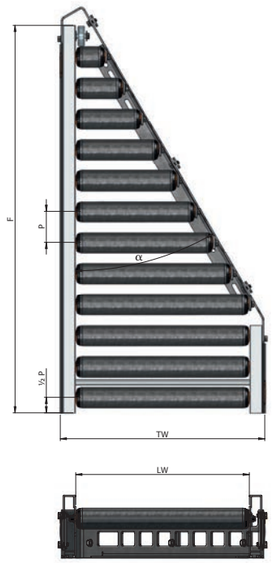
BELT DRIVEN OUTFEED ROLLER CONVEYOR ERS 53

The Logic Belt driven merges, merges two conveyor lines together.
The rollers are driven by belt.

TECHNICAL DATA

General technical data	
Max. load capacity	100 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	See Application Notes
Drive	
Drive medium	Belt
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
TW Module width	LW + 75 mm
F face Lenght	See Application Notes P90
α Angle	30° / 45°
P Roller pitch	75 | 100 mm
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

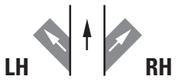
2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Pitch
75 | 100

4 Angle α
30° | 45°

5 Outfeed
0

6 Drive position
Right hand drive | **RH**
Left hand drive | **LH**



7 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7
53	-	-	-	0	-	-

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

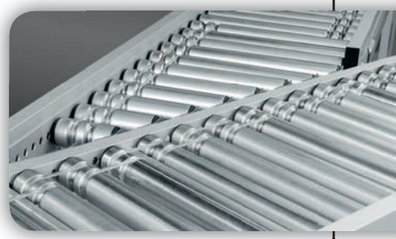
- Support stands, see P92
- Accessoires, see P102

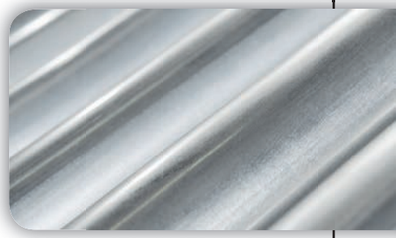
This module is driven by the adjacent straight module.

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 75 - 30 - 0 - LH - HH

This reference number stands for Belt Driven Roller Conveyor ERS 53 with a clearance LW 420 mm, a roller pitch P 75 mm, a outfeed angle 30°, the drive medium on the left hand and both sides high side profile.





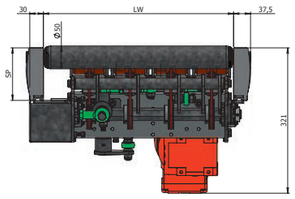
BELT DRIVEN HIGH SPEED POP-UP ERS 53

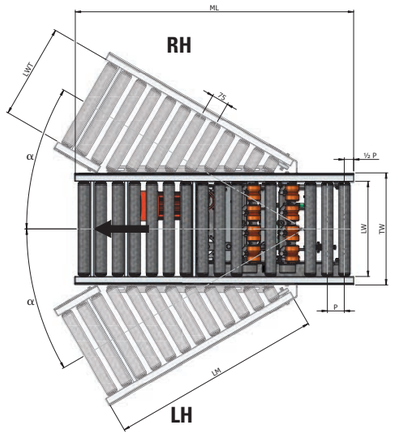
The high speed pop up diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

TECHNICAL DATA

	Mechanical	Pneumatic
General technical data		
Max. load capacity per zone	50 kg	50 kg
Conveyor speed	Max 1,75 m/s	Max 1,75 m/s
Inclined/declined	Not suitable	Not suitable
Ambient temperature	+5 to +40 °C	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load	
Roller		
Roller bearing	Sealed Precision bearing 6002 2RZ	Sealed Precision bearing 6002 2RZ
Roller diameter	50 mm	50 mm
Roller material	Steel, zinc-plated	Steel, zinc-plated
Lifting gear		
Operating medium	400V / 50 Hz / 3 phases	Compressed air in accordance with ISO8573-1:2010 (7:4:4)
Operating power/pressure	0,12 kW	0,8 ... 10 bar
Piston diameter		40 mm
Side profile		
Profile H	151,5 mm high 31,5 mm above top edge of roller	
Combination of profile heights left/right	HH HL LH LL	

DIMENSIONS





Di nsions

LW Clearance	420 / 520 / 620 / 820 mm
LWT Clear width transfer	420 / 520 / 620 / 820 mm
ML Max. module lenght	2250 mm
TW Module width	LW + 75 mm
α Angle	30°
P Roller pitch	75 / 100 mm
LM lenght of merge	See Application Notes P90
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Module lenght ML in mm
See Application Notes P122

4 Roller pitch P in mm
75 | **100**

5 Diverter
Left hand drive | **LH**
Right hand drive | **RH**
Left/Right hand drive | **LRH** (Only pneumatic)

6 Drive side
Left | **R**ight

7 Type
Mechanical | **P**neumatic

8 Side profiles
HL | **LH** | **LL**

1	2	3	4	5	6	7	8
53	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 1425 - 75 - RH - R – P- LL

This reference number stands for belt driven roller conveyor high speed popup ERS 53 with a clearance LW of 420 mm, module length of 1425 mm an angle of 30 degrees a roller pitch of 75 mm a right hand diverter, drive side = right and Pneumatic lifting gear type with both sides low profiles.
Depending on the layout the pop up can outfeed up to 4500 products/hour.

ORDER INFORMATION

- The module is completely assembled with control and sensors
- Please order support stands, side guide, end caps, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

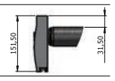
ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

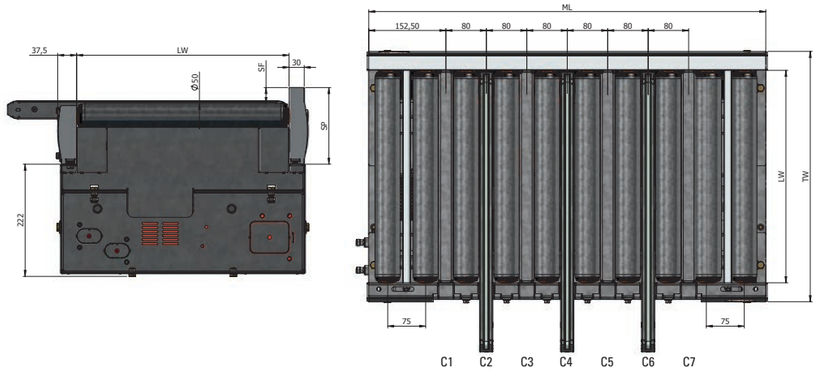
BELT DRIVEN TRANSFER ERS 53

The Logic 90° Transfer, lifts and transfers materials from a straight section and moves the materials at right angles, this can also be used for merging and diverting. The electrical stroke of the transfer belt arms guarantee safe transportation. The belt transfer cassettes are easily and quick replaceable to have minimum loss of production time.

TECHNICAL DATA

General technical data			
Max. load capacity per zone	50 kg		
Conveyor speed	max 0,9 m/s		
Transfer speed	max 1,2 m/s		
Inclined/declined	Not suitable		
Ambient temperature	+5 to +50 °C		
	Maximum load capacity is depending on the combination of speed & load		
Roller			
Drive medium	Flat belt driven by previous modul		
Roller bearing	Sealed Precision bearing 6002 2RZ		
Roller diameter	50 mm		
Roller material	Steel, zinc-plated		
Transfer Cartridge			
Rated voltage (Roller drive)	400V / 50 Hz / 3 phases		
Max. electric power/pressure	0,25 kW		
Power transmission transfer	Toothed belt		
Stroke height	9 mm above top edge of roller		
Lifting gear	**Mechanical**	**Pneumatic**	
Operating medium	400V / 50 Hz / 3 phases	Compressed air in accordance with ISO8573-1:2010 (7:4:4)	
Operating power/pressure	0,12 kW	0,6 ... 10 bar	
Piston diameter		50 mm	
Side profile			
Profile H	151,5 mm high 31,5 mm above top edge of roller		
Combination of profile heights left/right	HL  LH  LL 		

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Module length	785 mm
TW Module width	LW + 75 mm
α Angle	90°
C1 First belt pitch	152,5 mm
C2 till C7	152,5 + n x 80 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 TYPE
T1, T2, T3

4 Amount of cassette
2 | 3 | 4 | 5 | 6 | 7

5 First cassette
C1 | C2 | C3 | C4 | C5 | C6

6 Casset Pitch
n x 80 mm

7 Lifting gear
Mechanical | **M** Pneumatic | **P**

8 Transfer speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,2

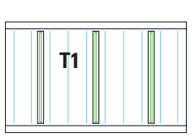
9 Side profiles
HL | LH | LL

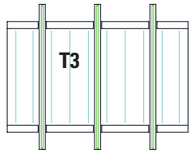
1	2	3	4	5	6	7	8	9
53	-	-	-	-	-	-	-	-

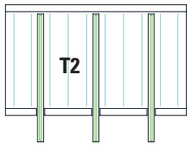
ORDER EXAMPLE

Example for a reference number:
53 - 620 - T2 - 3 - C2 - 2 - M - 0,98 - LL

This reference number stands for logic transfer ERS 53 with a clearance LW of 620 mm, type T2 with 3 cassette, the first cassette C2 (position 152,5 + 80 mm) with every next cassette pitch of 2 x 80 mm (160 mm), Lifting gear: mechanical, transfer speed 0.98 m/s and low side profile both sides.
Depending on the layout the pop up can outfeed up to 4500 products/hour.







ORDER INFORMATION

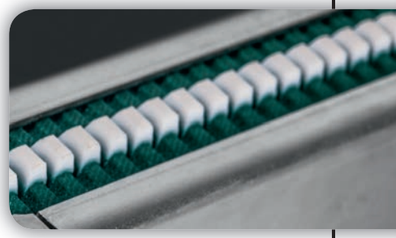
- Module is completely assembled with control and sensors
- Please order support stands, side guids end caps, straight connectors and sensors separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P94
- Accessoires, see P102



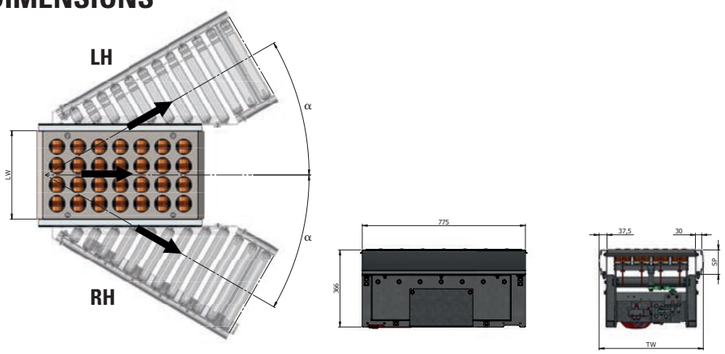
HIGH SPEED DIVERTER ERS 53

The high speed pop up diverts material that should maintain its direction of travel via pivoted rollers. The flow of material remains uninterrupted.

TECHNICAL DATA

	Pneumatic
General technical data	
Max. load capacity per zone	50 kg
Conveyor speed	Max 1,75 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
Roller	**Maximum load capacity is depending on the combination of speed & load**
Roller bearing	Sealed Precision bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Drive	
Rated voltage	400V / 50Hz / 3 phase
Max. electric power	0,75 kw
Swivel gear	
Operating medium	Compressed air in accordance with ISO8573-1:2010 (7:4:4)
Operating power/pressure	0,8 ... 10 bar
Piston diameter	40 mm
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module lenght	2250 mm
TW Module width	LW + 75 mm
α Angle	30°
P Roller pitch	75 / 100 mm
LM lenght of merge	See Application Notes P90
SP Side profile	151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 53

2 Clearance LW
420 | 520 | 620 | 820
Friction Top Roller put **F** behind the **LW**
Example 53 - 420F - 75 - .....

3 Angle α
30° | 45°

4 Diverter
Left hand drive | **LH**
Right hand drive | **RH**

5 Drive side
Left | **R**ight

6 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75

7 Side profiles
HL | LH | LL

1		2		3		4		5		6		7
53	-		-		-		-		-		-	

ORDER EXAMPLE

Example for a reference number:
53 - 420 - 30 - RH - R - 0,33 - LL

This reference number stands for belt driven roller conveyor high speed diverter ERS 53 with a clearance LW of 420 mm, an angle of 30 degrees, a right hand diverter, drive side = right and conveyor speed of 0,33 m/s with both sides low profiles.
Depending on the layout the pop up can outfeed up to 6000 products/hour.

ORDER INFORMATION

- The module is completely assembled with control and sensors
- Please order support stands, end caps, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

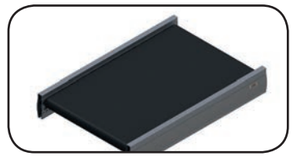
CONFIGURATOR

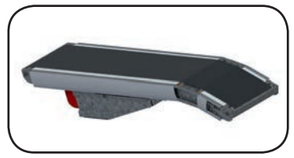
- If you require a non-standard model, contact your local Logic Supplier.

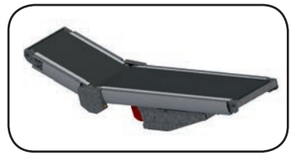
ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

ERS BELT CONVEYORS





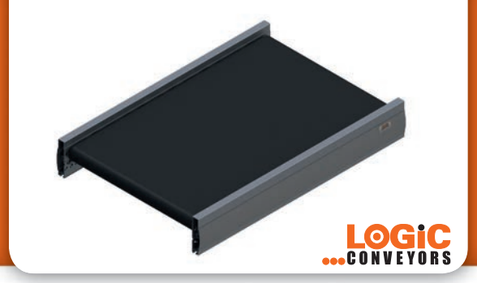


CONVEYOR SOLUTIONS FOR HEAVY GOODS

High loads with economy of use	The belt conveyor stands out for careful and extremely low-noise conveying of totes and cartons. It can be combined with either a head drive or a central drive depending on its length. The belt conveyor with central drive is used for long conveying distances, its timing belt transmission enables a very quiet and low-maintenance operation. The belt conveyor with head drive is especially used for short conveying distances, it is also equipped with timing belt transmission. Both versions of the belt conveyor can cope with inclines of up to 22,5°. It is capable of conveying even the smallest goods
Transport of heavy loads	Loads with a weight of up to 600 kg are transported with ease
Plug and play	Ready for installation and use with pre-assembled modules

LOGIC CONVEYORS by Easy Conveyors

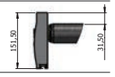
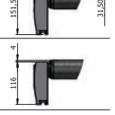
Available for DEMO3D



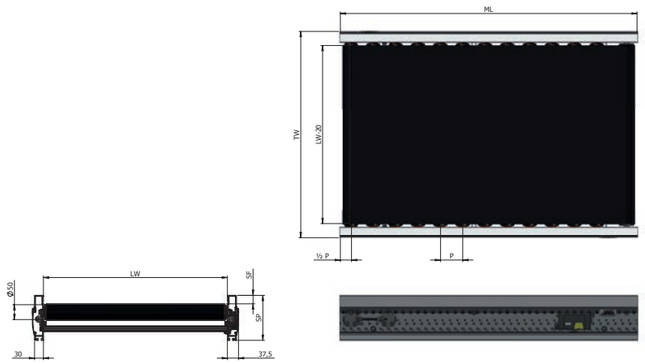
ROLLERDRIVE BELT CONVEYOR ERS 56

The RollerDrive Belt Conveyor is used with a PLC as transport storage conveyors or zero accumulation pressure storage conveyors. Each drive features a digital interface to an external control (PLC) that simultaneously protects the RollerDrive from overload. It is possible to transport small products.

TECHNICAL DATA

General technical data	
Max. load capacity	50 kg
Conveyor speed	0,16 to 0,98 m/s
Inclined/declined	Max 15°
Ambient temperature	+5 to +40°C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11
Drive	
Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Conveyor belt	PVC 2 layer black
Slider bed	Roller
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller 
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller 
Combination of profile heights left/right	HH  HL  LH  LL 

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 56

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
A 75 | 100
B 125

4 Zone length ML in mm (Length goes in steps of 25mm)
A min 300 mm, numbers of rollers x P, see application notes P106
B min 375 mm, numbers of rollers x P, see application notes P106

5 Number of zones
See Application Notes, P74

6 Electric side
Right | **R** / Left | **L**

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98

8 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8
56	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
56 - 620 - 125 - 500 - 4 - R - 0,33 - HH

This reference number stands for RollerDrive Conveyor ERS 56 with a clearance LW 620 mm, a roller pitch P 125 mm, a zone length 500 mm, 4 zones, the electric side on the right, a conveyor speed of 0.33 m/s and both sides high side profile.

ORDER INFORMATION

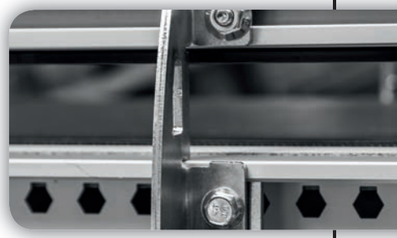
- The module is fully assembled
- Please order support stands, side guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

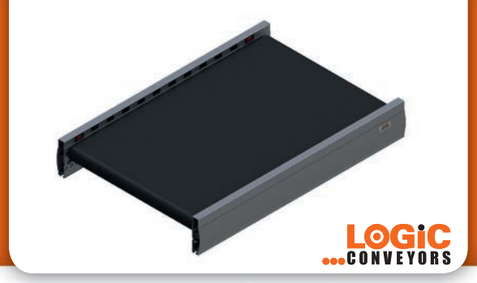
CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102





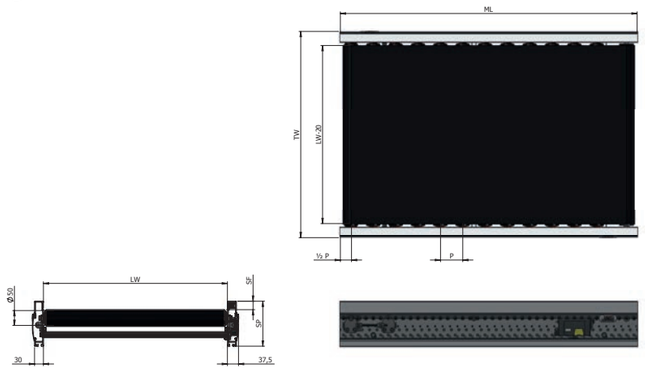
SMART BELT CONVEYOR ERS 57

The Smart belt conveyor is a belt conveyor that is divided into zones and operates with zero pressure accumulation, the drive is based on the 24 VDC drive roller and the smart control incl build in sensors. It is possible to transport and accumulate small products.

TECHNICAL DATA

General technical data	
Max. load capacity	50 kg
Conveyor speed	0,16 to 0,98 m/s
Inclined/declined	Not suitable
Ambient temperature	+5 to +40 °C
	Maximum load capacity is depending on the combination of speed & load
Roller	
Roller bearing	Sealed Precision ball bearing 6002 2RZ
Roller diameter	50 mm
Roller material	Steel, zinc-plated
Max. number of rollers per conveyor/zone	11
Drive	
Rated voltage	24 VDC
Max. electrical power per zone	0.05 kW
Conveyor belt	PVC 2 layer black
Slider bed	Roller
Side profile	
Profile H	151,5 mm high 31,5 mm above top edge of roller
Profile L	Permits lateral displacement 116 mm high 4 mm below top edge of roller
Combination of profile heights left/right	HH HL LH LL

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	max. 3000 mm
ZL Zone length	Number of rollers x P
TW Module width	LW + 75 mm
P Roller pitch	75 / 100 / 125 mm
SP Side profile	116 /151,5 mm
SF Side guide	31,5 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 57

2 Clearance LW
420 | 520 | 620 | 820

3 Roller pitch P in mm
A 75 | 100
B 125

4 Module length ML in mm (Length goes in steps of 25mm)
A min 300 mm, numbers of rollers x P, see application notes P106
B min 375 mm, numbers of rollers x P, see application notes P106

5 Number of zones
See application notes P74

6 Electric side
Right | **R** / Left | **L**

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,78 | 0,98

8 Side profiles
HH | HL | LH | LL

1	2	3	4	5	6	7	8
57	-	-	-	-	-	-	-

ORDER EXAMPLE

Example for a reference number:
57 - 420 - 100 - 500 - 4 - R - 0,25 - HH

This reference number stands for Smart conveyor ERS 57 with a clearance LW 420 mm, a roller pitch P 100 mm, zone length 500 mm, 4 zones, the electric side on the right, a conveyor speed of 0.25 m/s and both sides high side profile.

ORDER INFORMATION

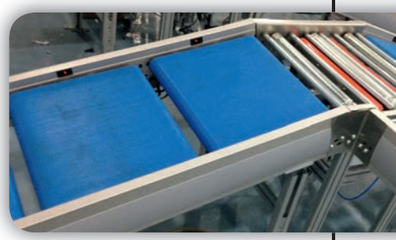
- Module is completely assembled with control and sensors
- Please order support stands, side guids, end caps, sensors, straight connectors and 24 V power supply unit separately
- Steel components are zinc-plated

CONFIGURATOR

- For selection of the RollerDrive please consult the information on P99
- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102



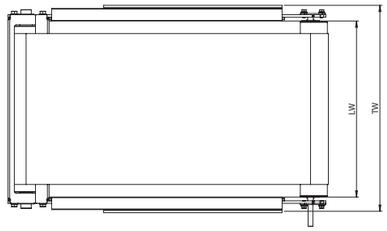
BELT CONVEYOR STRAIGHT WITH HEAD DRIVE ERS 70

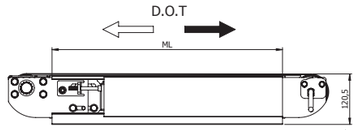
The belt conveyors used for transport of unit loads that are not suitable for roller tracks, and for all types of unit loads in case of inclines and declines.

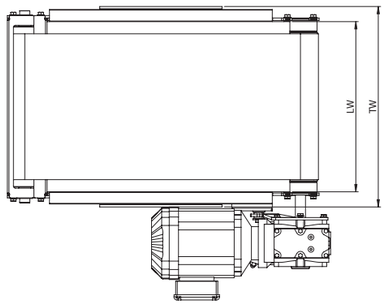
TECHNICAL DATA

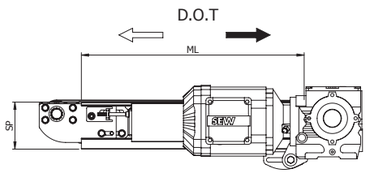
General technical data	Drum motor	Gear motor
Max. load capacity per module	120 kg	250 kg
Conveyor speed	Max 1,0 m/s	Max 1,75 m/s
Inclined/declined	Max 10°	Max 10°
Ambient temperature	-5 to +50 °C	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load	
Belt material		
Conveyor surface	PVC black - Type 2 M12 UO-V3N	
Slider bed	Chip board, 16 mm white laminated	
Specs	see belt notes P87	
Drive	**Drum motor**	**Gear motor**
Rated voltage	400 V / 50 Hz / 3 phase	400 V / 50 Hz / 3 phase
Max. electrical power per zone	0,12 kW	1,1 kW
Drive medium	Drive pully ø 81,5	ø 85
Side profile		
Profile L	116 mm high 4 mm below top edge of belt	
	LL  L max = 8,5 mtr	

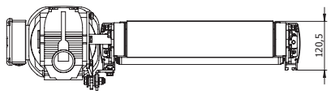
DIMENSIONS











Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	3000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
1

3 Clearance LW
420 | 520 | 620 | 820

4 Drive
GM | Gear Motor
DM | Drum Motor

5 Module length ML in mm (Length goes in steps of 25mm)
min 600 mm, max 3000 mm

6 Drive postition
Right hand drive | **R**
Left hand drive | **L**

7 Side profiles
LL

8 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98

1	2	3	4	5	6	7	8
70	- 1	-	-	-	-	- LL	/

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

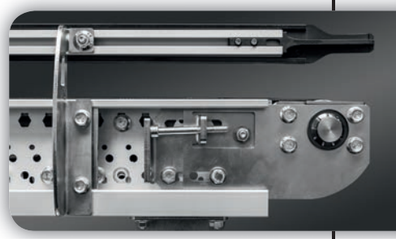
ACCESSOIRES

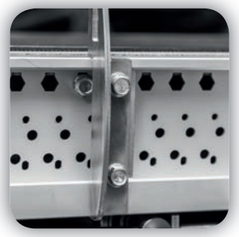
- Support stands, see P92
- Accessoires, see P102

ORDER EXAMPLE

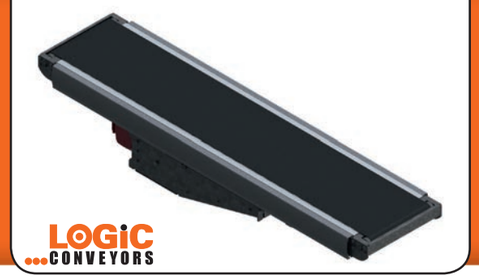
Example for a reference number:
70 - 1 - 420 - DM - 2000 - R - LL / 0.65

This reference number stands for Belt Conveyor with drum drive ERS 70 with a clearance LW 420 mm, a module length ML 2000 mm, a drum drive on the right, a conveyor speed of 0.65 m/s and both sides low side profile.





Refer to the (design) notes from P74 up for help with planning and design



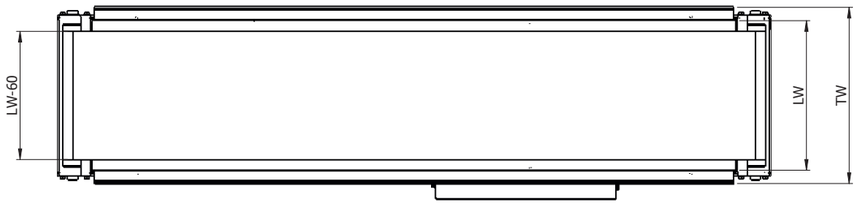
BELT CONVEYOR STRAIGHT WITH CENTER DRIVE ERS 70

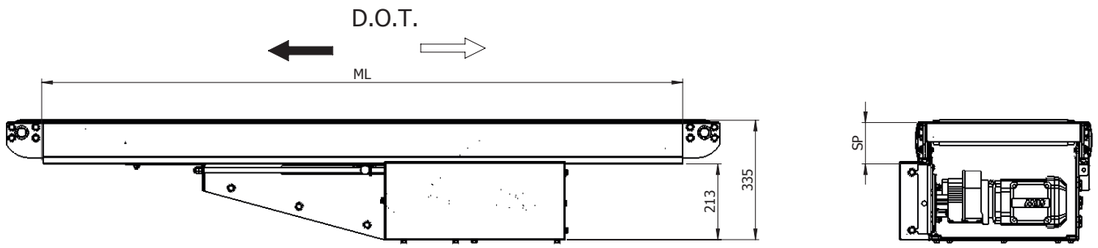
The belt conveyors used for transport of unit loads that are not suitable for roller tracks, and for all types of unit loads in case of inclines and declines.

TECHNICAL DATA

General technical data	
Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 24°
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Belt material	
Conveyor belt surface	PVC black - Type 2 M12 UO-V3N
Slider bed	Chip board, 16 mm white laminated
Specs	see belt notes P87
Drive Drum Motor	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pully ø 180 mm vulcanised
Side profile	
Profile L	116 mm high 4 mm below top edge of belt 
	LL 

DIMENSIONS





Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
2

3 Clearance LW
420 | 520 | 620 | 820

4 Module length ML in mm (Length goes in steps of 25mm)
min 1.500 mm, max 30.000 mm

5 Drive postition
Right hand drive | **R**
Left hand drive | **L**

6 Side profiles
LL

7 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1		2		3		4		5		6		7
70	-	2	-		-		-		-	LL	/	

ORDER EXAMPLE

Example for a reference number:
70 - 2 - 420 - 2000 - R - LL / 0,33

This reference number stands for Belt Conveyor with center drive ERS 70 with a clearance LW 420 mm, a module length ML 12.000 mm, a head drive on the right, a conveyor speed of 0.33 m/s and both sides low side profile.

ORDER INFORMATION

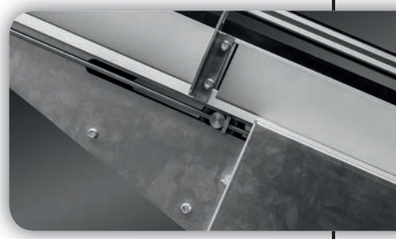
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

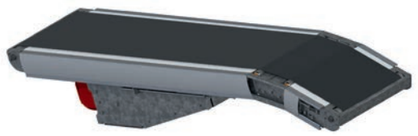
CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102





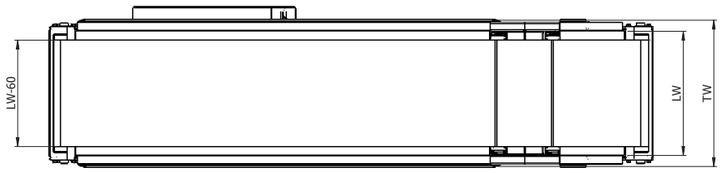
BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + TOP ARCH ERS 70

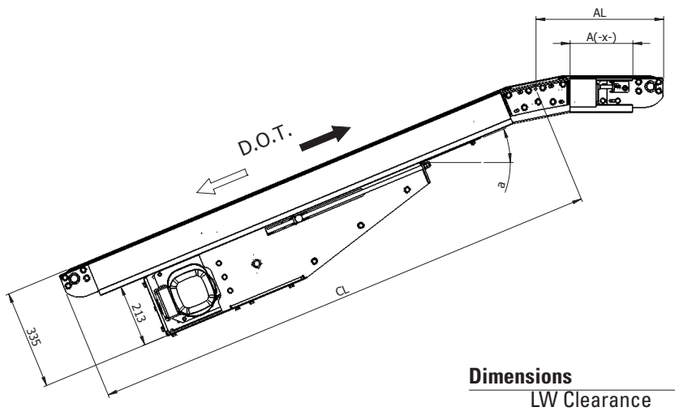
The belt conveyor ERS 70 with top arch is used for transport all types of unit loads in case of inclines and declines. The arch reduces noice and the impact of materials while passing over them.

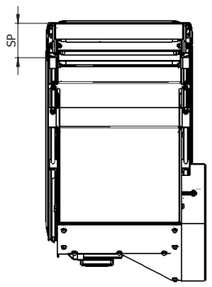
TECHNICAL DATA

General technical data	
Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Belt material	
Conveyor belt surface	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Slider bed	Chip board, 16 mm white laminated
Specs	see belt notes P86
Drive Drum Motor	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pully ø 180 mm vulcanised
Side profile	
Profile L	116 mm high 4 mm below top edge of belt 
	LL 

DIMENSIONS







Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
3

3 Clearance LW
420 | 520 | 620 | 820

4 Arch Angle α
4° | 8° | 12° | 16° | 20° | 22,5°

5 Module length ML in mm (Length goes in steps of 25mm)
min 1.500 mm, max 30.000 mm

6 A =
A1 212,5 mm | **A2** 312,5 mm | **A3** 412,5 mm | **A4** 512,5 mm | **A5** 612,5 mm
AL = A + +/- 220 mm | CL = ML + +/- 246 mm (depending on Arch angle)

7 Drive postition
Right hand drive | **R**
Left hand drive | **L**

8 Side profiles
LL

9 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1	2	3	4	5	6	7	8	9
70	- 3	-	-	-	-	-	- LL	/

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

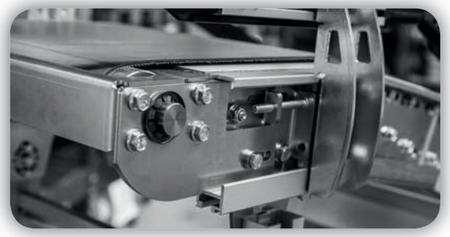
ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

ORDER EXAMPLE

Example for a reference number:
70 - 3 - 420 - 12 - 6000 - A2 - R - LL / 0,33

This reference number stands for Belt Conveyor ERS 70, type 3 with a clearance LW 420 mm, an arch angle of 12°, a module length ML 6.000 mm, with a top arch of 312,50 mm and a right hand center drive and both sides low side profile, speed is 0,33 m/s.



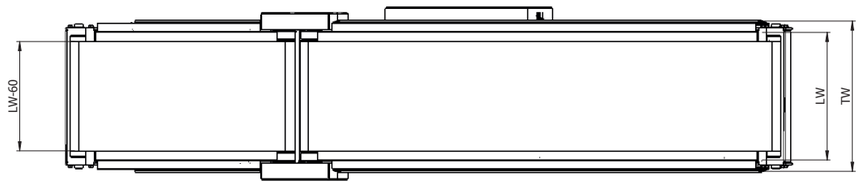
BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + FEED ERS 70

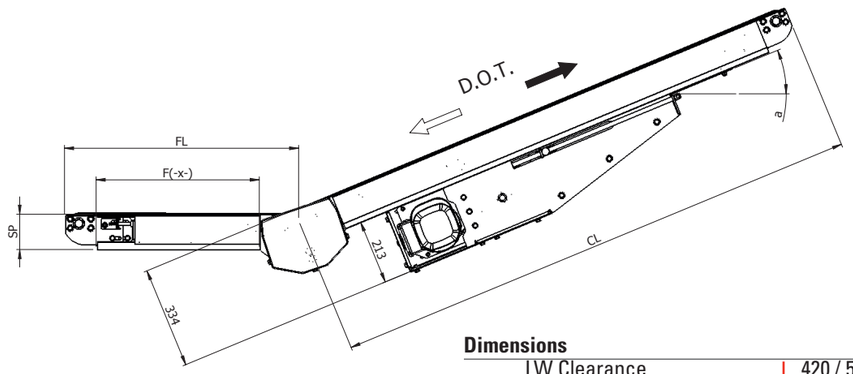
The belt conveyor ERS 70, type 4 is used for transporting all types of unit loads in case of inclines and declines. The feed anables a smooth transition at the lower unit of the belt conveyor, e.g. at the interface with a roller conveyor.

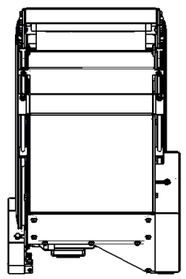
TECHNICAL DATA

General technical data	
Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Belt material	
Conveyor belt surface	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Slider bed	Chip board, 16 mm white laminated
Specs	see belt notes P86
Drive Drum Motor	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pully ø 180 mm vulcanised
Side profile	
Profile L	116 mm high 4 mm below top edge of belt
	LL

DIMENSIONS







Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
4

3 Clearance LW
420 | 520 | 620 | 820

4 Feed α
4° | 8° | 12° | 16° | 20° | 22,5°

5 Module length ML in mm (Length goes in steps of 25mm)
min 1.512,50 mm, max 30.000 mm

6 F =
F1 537,5 mm | **F2** 637,5 mm | **F3** 737,5 mm | **F4** 837,5 mm
FL = F + +/- 233,5 mm | CL = ML + +/- 246 mm (depending on Feed angle)

7 Drive postition
Right hand drive | **R**
Left hand drive | **L**

8 Side profiles
LL

9 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1		2		3		4		5		6		7		8		9
70	-	4	-		-		-		-		-		-	LL	/	

ORDER INFORMATION

- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

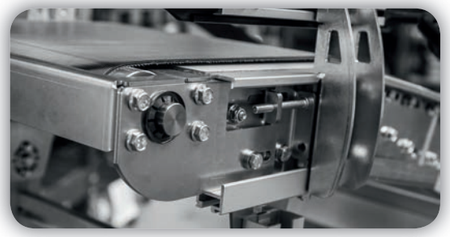
ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102

ORDER EXAMPLE

Example for a reference number:
70 - 4 - 420 - 20 - 10.000 - F3 - R - LL / 0,65

This reference number stands for Belt Conveyor ERS 70, type 4 with a clearance of 420 mm, a feed angle of 20°, a module length ML 10.000 mm, with a feed lenght of 737,50 mm and a right hand center drive and both sides low side profile, speed is 0,65 m/s.



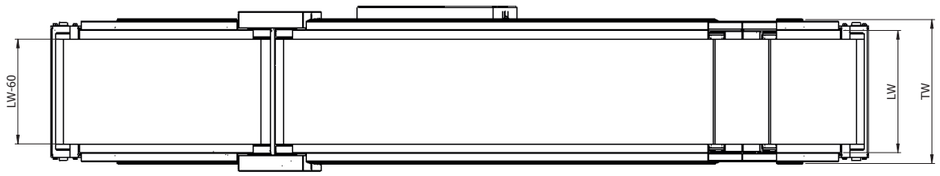
BELT CONVEYOR STRAIGHT WITH CENTER DRIVE + TOP ARCH + FEED ERS 70

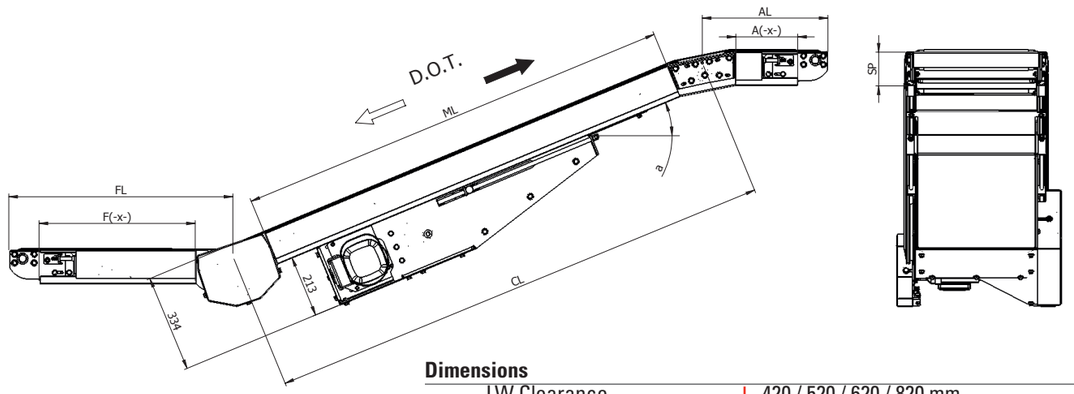
The belt conveyor ERS 70, type 5 is used for transporting all types of unit loads in case of inclines and declines. Arch and feed allow a smooth and quieter transition at the upper and lower link.

TECHNICAL DATA

General technical data	
Max. load capacity per module	600 kg
Conveyor speed	Max 2,6 m/s
Inclined/declined	Max 22,5°
Ambient temperature	-5 to +50 °C
	Maximum load capacity is depending on the combination of speed & load
Belt material	
Conveyor belt surface feed	PVC black - Type 2 M12 UO-V3N
Conveyor belt straight + Arch	PVC black with TPU, grooved longitudinally - Type 2 M12 V7LGFr
Slider bed	Chip board, 16 mm white laminated
Specs	see belt notes P86 + 87
Drive Drum Motor	
Rated voltage	400 V / 50 Hz / 3 phase
Max. electrical power per zone	1,2 kW
Drive medium	Drive pully ø 180 mm vulcanised
Side profile	
Profile L	116 mm high 4 mm below top edge of belt
	LL

DIMENSIONS





Dimensions

LW Clearance	420 / 520 / 620 / 820 mm
ML Max. module length	30.000 mm
TW Module width	LW + 75 mm
BW Belt wide	LW -/- 60 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 70

2 TYPE
5

3 Clearance LW
420 | 520 | 620 | 820

4 Arch angle α
4° | 8° | 12° | 16° | 20° | 22,5°

5 F =
F1 537,5 mm | **F2** 637,5 mm | **F3** 737,5 mm | **F4** 837,5 mm
FL = F + +/- 233,5 mm | CL = ML + +/- 246 mm (depending on Feed angle)

6 Module length ML in mm (Length goes in steps of 25mm)
min 1.512,50 mm, max 30.000 mm

7 A =
A1 212,5 mm | **A2** 312,5 mm | **A3** 412,5 mm | **A4** 512,5 mm | **A5** 612,5 mm
AL = A + +/- 220 mm | CL = ML + +/- 246 mm (depending on Arch angle)

8 Drive postition
Right hand drive | **R**
Left hand drive | **L**

9 Side profiles
LL

10 Conveyor speed in m/s
0,16 | 0,25 | 0,33 | 0,44 | 0,65 | 0,98 | 1,31 | 1,75 | 2,6

1	2	3	4	5	6	7	8	9	10
70	- 5	-	-	-	-	-	-	- LL	/

ORDER EXAMPLE

Example for a reference number:
70 - 5 - 420 - 8 - F2 - 7500 - A3 - R - LL / 0,65

This reference number stands for Belt Conveyor ERS 70, type 5 with a clearance of 420 mm, an arch angle of 8°, a feed length of 637,5 mm, a module lenght of 7.500 mm, with a arch lenght of 412,50 mm and a right hand center drive and both sides low side profile, speed is 0,65 m/s.

ORDER INFORMATION

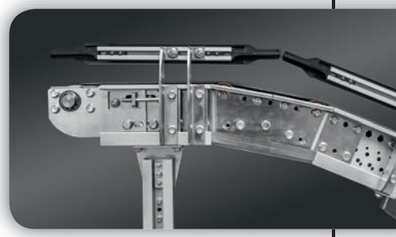
- The module is fully assembled
- Please order support stands, side guide, straight connectors and end caps separately
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

ACCESSOIRES

- Support stands, see P92
- Accessoires, see P102



CONVEYOR AND PROCESS BELTS
ERS 70
2M12 U0-V7 LG FR

TECHNICAL DATA

COMPOSITION

Conveying surface	material	PVC 45 Sh.A (±5)
	thickness	0.70 mm *0.028 in.*
	surface pattern	LG
	colour	anthracite
	coefficient of friction	HF
Textile carcass	material	polyester (PET)
	plies no.	2
	weft type	rigid
Driving surface	material	fabric with polyurethane (TPU) impregnation
	thickness	--- mm --- *in.*
	surface pattern	LdB fabric
	colour	grey

TECHNICAL SPECIFICATIONS

Total thickness	2.70 mm	*0.11*	*in.*
Weight	2.40 kg/m²	*0.49*	*lbs./sq.ft*
Elongation at 1%	12 N/mm	*68.5*	*lbs./in.*
Max. admissible pull	24 N/mm	*137.0*	*lbs./in.*
Temperature resistance [1] min.	-10 °C	*14*	*°F*
Temperature resistance [1] max.	60 °C	*140*	*°F*

[1] use of the belt with limit values may reduce its life

Minimum roller diameter [2]			
knife edge	no		
bending roller	40 mm	*1.6*	*in.*
counter-bending roller	60 mm	*2.4*	*in.*

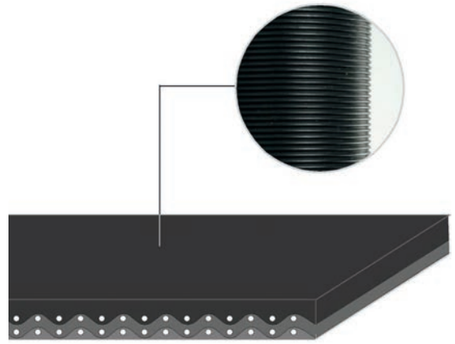
[2] the above mentioned values depend on the type of CHIORINO joint recommended

Coefficient of friction on driving surface	
raw steel sheet	0.20 [-]
laminated plastic/wood	0.25 [-]
steel roller	0.20 [-]
rubberized roller	0.30 [-]

Max. production width	2000 mm	*79*	*in.*

SUITABLE FOR

Airports
Materials handling



FEATURES

Humidity influence	no
Suitable to metal detector	no
Permanent antistatic dynamically (UNI EN ISO 21179)	yes
Static conductivity (UNI EN ISO 284)	no
Conveying on skid bed	yes
Conveying on rollers	yes
Conveying on skid bed on top and return	no
Troughed conveying	no
Swan neck conveying	yes
Inclined conveying	yes
Accumulators belts	no
Curved conveyor	no
Chemical resistances (see file available on line)	9

COMPLIANCES

REACH Regulation EC 1907/2006 and amendments
Flame Retardant UNI EN ISO 340
Flame Retardant UL94HB Horizontal Burning

NOTES

CONVEYOR AND PROCESS BELTS
ERS 70
2M12 U0-V3 N

TECHNICAL DATA

COMPOSITION

Conveying surface	material	PVC 70 Sh.A (±5)
	thickness	0.30 mm *0.012 in.*
	surface pattern	smooth
	colour	black
	coefficient of friction	LF
Textile carcass	material	polyester (PET)
	plies no.	2
	weft type	rigid
Driving surface	material	fabric with polyurethane (TPU) impregnation
	thickness	--- mm --- *in.*
	surface pattern	LdB fabric
	colour	grey

TECHNICAL SPECIFICATIONS

Total thickness	1.90 mm	*0.07*	*in.*
Weight	2.10 kg/m²	*0.43*	*lbs./sq.ft*
Elongation at 1%	12 N/mm	*68.5*	*lbs./in.*
Max. admissible pull	24 N/mm	*137.0*	*lbs./in.*
Temperature resistance [1] min.	-10 °C	*14*	*°F*
Temperature resistance [1] max.	60 °C	*140*	*°F*

[1] use of the belt with limit values may reduce its life

Minimum roller diameter [2]			
knife edge	no		
bending roller	40 mm	*1.6*	*in.*
counter-bending roller	50 mm	*2.0*	*in.*

[2] the above mentioned values depend on the type of CHIORINO joint recommended

Coefficient of friction on driving surface	
raw steel sheet	0.20 [-]
laminated plastic/wood	0.25 [-]
steel roller	0.20 [-]
rubberized roller	0.30 [-]

Max. production width	3000 mm	*118*	*in.*

SUITABLE FOR

Wood: MDF particle board panels
Packaging
Supermarkets check-outs
Telescopic belts
Plastic materials moulding

FEATURES

Humidity influence	no
Suitable to metal detector	no
Permanent antistatic dynamically (UNI EN ISO 21179)	yes
Static conductivity (UNI EN ISO 284)	no
Conveying on skid bed	yes
Conveying on rollers	yes
Conveying on skid bed on top and return	no
Troughed conveying	no
Swan neck conveying	yes
Inclined conveying	no
Accumulators belts	yes
Curved conveyor	no
Chemical resistances (see file available on line)	2

COMPLIANCES

REACH Regulation EC 1907/2006 and amendments

NOTES

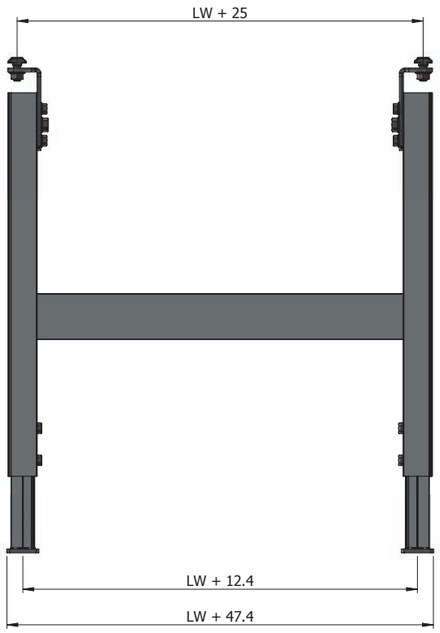
ADJUSTABLE SUPPORT STANDS Type ERS 60

The Logic Support Stands consist of robust aluminium profile upon which the conveyor modules are mounted. The support stands are equipped with an adjustable supports and are fixed to the conveyor side frame via a top coupling bracket.

TECHNICAL DATA

General technical data	
Max. load capacity	200 kg
Side profile	
Combination of profile heights left/right	HH HL LH LL
Number of cross members	1 with 350 to 800 mm top of roller height 2 with 800 to 1400 mm top of roller height 3 with 1400 to 2000 mm top of roller height

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
T.O.R. Top of roller height	362 to 2000 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 60

2 Clearance LW
420 | 520 | 620 | 820

3 Height

1	362,5 - 442,5 mm
2	432,5 - 582,5 mm
3	572,5 - 862,5 mm
4	852,5 - 1422,5 mm
5	1412,5 - 2542,5 mm

4 Module

S	Straight section
C	Curve section

1		2		3		4
60	-		-		-	

ORDER EXAMPLE

Example for a reference number:
60 - 420 - 3 - S

This reference number stands for ERS Support Stands with a clearance LW 420 mm and a top of roller height of roller 572,5 till 862,5 mm, straight section.

Note **1** Longitudinal or diagonal cross members are not included
2 Dependable on conveyor speed, load, start/stops, etc. additional cross mebersnoted under “1” are not included

ORDER INFORMATION

- The module is fully assembled
- Steel components are zinc-plated

CONFIGURATOR

- If you require a non-standard model, contact your local Logic Supplier.

Refer to the (design) notes from P74 up for help with planning and design

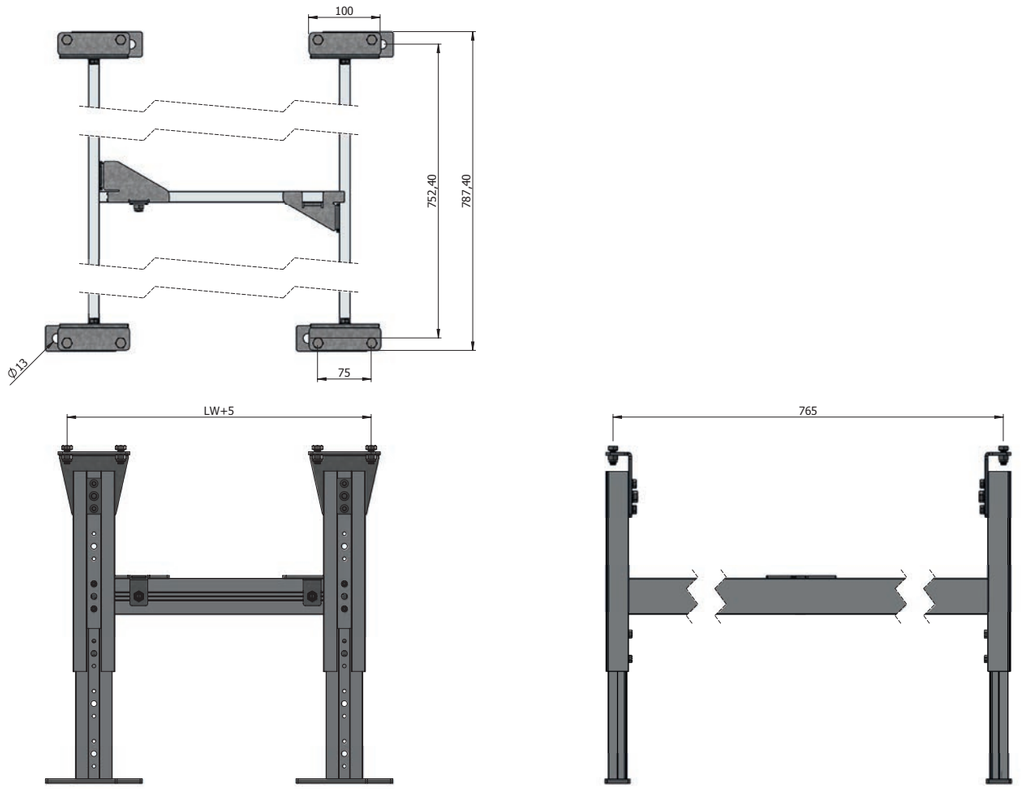
ADJUSTABLE SUPPORT STANDS Type ERS 60

The Logic Support Stands consist of robust aluminium profile upon which the conveyor modules are mounted. The support stands are equipped with an adjustable supports and are fixed to the conveyor side frame via a top coupling bracket.

TECHNICAL DATA

General technical data	
Max. load capacity	200 kg
Side profile	
Combination of profile heights left/right	HH HL LH LL
Number of cross members	1 with 577,5 to 657,5 mm top of roller height 2 with 647,5 to 797,5 mm top of roller height 3 with 787,5 to 1077,5 mm top of roller height 4 with 1067,5 to1637,5 mm top of roller height 5 with 1627,5 to 2757,5 mm top of roller height

DIMENSIONS



Dimensions	
LW Clearance	420 / 520 / 620 / 820 mm
T.O.R. Top of roller height	577 to 2000 mm

LOGIC CONFIGURATOR

Please create the reference number with the following configurator.

1 TYPE
ERS 60

2 Clearance LW
420 | 520 | 620 | 820

3 Height

1	577,5 - 657,5 mm
2	647,5 - 797,5 mm
3	787,5 - 1077,5 mm
4	1067,5 - 1637,5 mm
5	1627,5 - 2757,5 mm

4 Module

T	Transfer module

1	2	3	4
60 -	-	-	-

ORDER EXAMPLE

Example for a reference number:
60 - 420 - 3 - T

This reference number stands for ERS Support Stands with a clearance LW 420 mm and a top of roller height of roller 572,5 till 862,5 mm, transfer.

Note **1** Longitudinal or diagonal cross members are not included
2 Dependable on conveyor speed, load, start/stops, etc. additional cross mebersnoted under “1” are not included

ORDER INFORMATION

- The module is fully assembled
- Steel components are zinc-plated

CONFIGURATOR

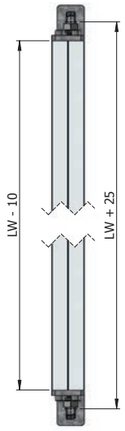
- If you require a non-standard model, contact your local Logic Supplier.

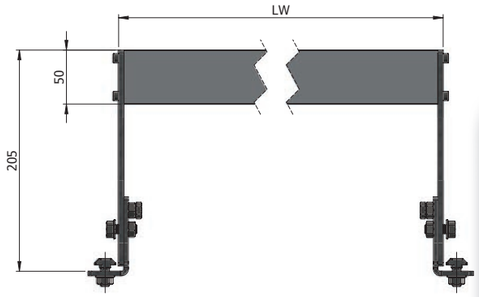
STOPPER TYPE 1 ERS 61

TECHNICAL DATA

General technical data	
Max. accumulation Pressure	300 N
Side profile	
Combination on profile heights left/right	HH HL LH LL

DIMENSIONS





Order example

W	Art nr
420	61-420-1
520	61-520-1
620	61-620-1
820	61-820-1

Dimensions

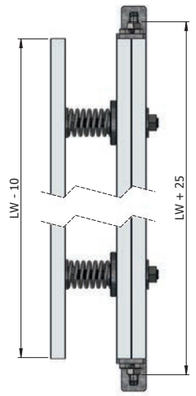
LW Clearance	420 / 520 / 620 / 820 mm

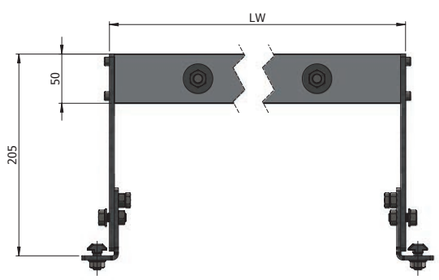
STOPPER TYPE 2 ERS 61

TECHNICAL DATA

General technical data	
Max. accumulation Pressure	300 N
Side profile	
Combination on profile heights left/right	HH HL LH LL

DIMENSIONS



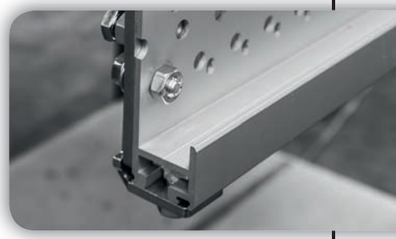


Order example

W	Art nr
420	61-420-2
520	61-520-2
620	61-620-2
820	61-820-2

Dimensions

LW Clearance	420 / 520 / 620 / 820 mm



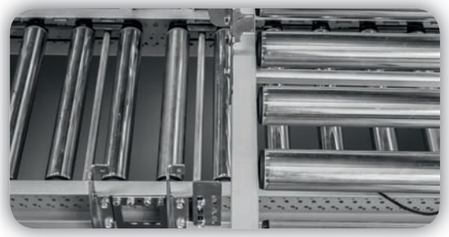
ROLLERDRIVE 24 VDC

PRODUCT DESCRIPTION

- Internal commutation electronics (brushless motor)
- 9 gear stages
- Constant conveyor speed
- Energy recovery in braking
- Electronic holding brake
- Motor cable with 5-pole snap-in plug

TECHNICAL DATA

General technical data	
Mechanical power	32 W
Noise level	55 dB(A)
Max. load capacity with a reference length of from 300 to 1,000 mm	1,100 N
Max. load capacity with a reference length of from 1,010 to 1,500 mm	490 N
Electrical data	
Rated voltage	24 V DC
Voltage range	18 to 28 V DC
Idle current	0.4 A
Rated current	2.0 A
Max. start-up current	5.0 A
Permissible voltage undulation	< 5 %, recommended: < 1 %
Protection rate	IP54
Dimensions	
Tube diameter	50 mm
Wall thickness	1.5 mm
Max. reference length	1,500 mm
Ambient conditions	
Ambient temperature in operation	0 to +40 °C
Ambient temperature during transport and storage	-30 to +75 °C
Max. air humidity	90 %, non-condensing



PRODUCT SELECTION

The following tables provide an overview of the possible versions.

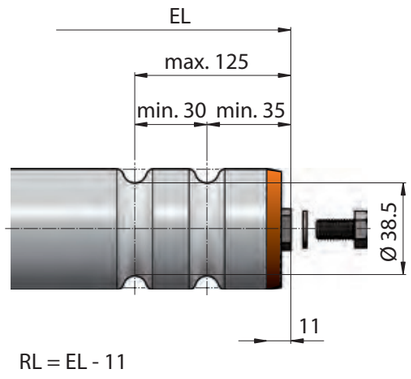
Gear stage versions

Gear ratio	Max. conveyor speed m/s	Rated torque Nm	Start-up torque Nm	Zero motion hold Nm
9:1	1.75	0.45	1.10	0.36
12:1	1.31	0.61	1.46	0.48
16:1	0.98	0.81	1.95	0.64
20:1	0.79	1.01	2.44	0.80
24:1	0.65	1.21	2.92	0.96
36:1	0.44	1.82	4.38	1.44
48:1	0.33	2.42	5.85	1.92
64:1	0.25	3.23	7.80	2.56
96:1	0.16	4.84	11.69	3.84

Counter bearing and min. reference length versions

Tube	Shaft	Gear ratio	Min. reference length mm
2 grooves	11 mm hex spring-loaded shaft	9:1	335
		12:1 / 16:1 / 20:1 / 24:1	331
		36:1 / 48:1 / 64:1 / 96:1	342
	Female thread M8	9:1	315
		12:1 / 16:1 / 20:1 / 24:1	311
		36:1 / 48:1 / 64:1 / 96:1	322
Without grooves	11 mm hex spring-loaded shaft	9:1	312
		12:1 / 16:1 / 20:1 / 24:1	308
		36:1 / 48:1 / 64:1 / 96:1	319
	Female thread M8	9:1	270
		12:1 / 16:1 / 20:1 / 24:1	266
		36:1 / 48:1 / 64:1 / 96:1	277
PolyVee head Round belt head	11 mm hex spring-loaded shaft	9:1	305
		12:1 / 16:1 / 20:1 / 24:1	301
		36:1 / 48:1 / 64:1 / 96:1	312
	Female thread M8	9:1	295
		12:1 / 16:1 / 20:1 / 24:1	291
		36:1 / 48:1 / 64:1 / 96:1	302
Toothed belt head Chain head	Female thread M8	9:1	287
		12:1 / 16:1 / 20:1 / 24:1	283
		36:1 / 48:1 / 64:1 / 96:1	294

Female thread M8

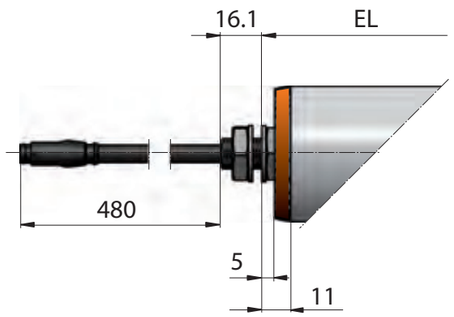


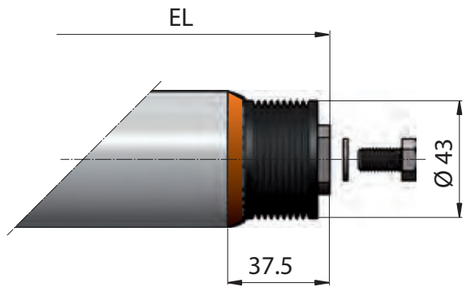
RL = EL - 11

DIMENSIONS AND CONNECTIONS

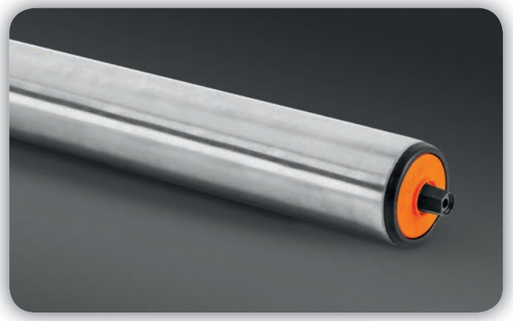
Dimensions
The dimensions depend on the shaft and counter bearing selected. The reference length/ordering length RL does not have any reference edges on the conveyor roller and can therefore not be shown. The installation (EL) corresponds to the clearance between the side profiles. All dimensions in mm.

Motor shaft





RL = EL - 36



GRAVITY ROLLER FOR TYPE 50 & 53

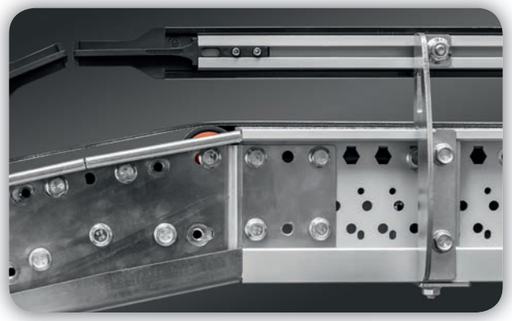
Wide	Art nr	Wide	Art nr
320	ERS040308000320	620	ERS040308000620
420	ERS040308000420	820	ERS040308000820
520	ERS040308000520		

ROUND BELT ROLLER FOR TYPE 51 & 52

Wide	Art nr	Wide	Art nr
320	ERS040308010320	620	ERS040308010620
420	ERS040308010420	820	ERS040308010820
520	ERS040308010520		

SENSORCLIP INCL. SENSOR

Art nr	
ERS040315000000	ERS PHOTO CELL KIT WITH PLASTIC CLIP

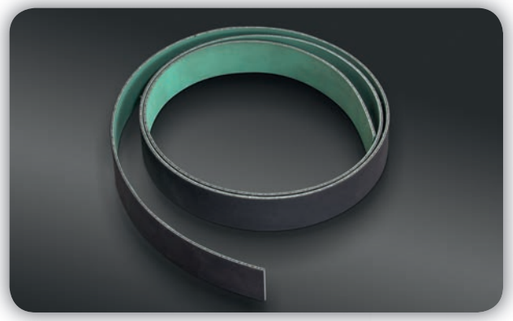


FIXED SIDE GUIDE

Art nr
ERS040311010000

POLY-V BELT ROLLER FOR TYPE 51 & 52

Wide	Art nr	Wide	Art nr
320	ERS040308011320	620	ERS040308011620
420	ERS040308011420	820	ERS040308011820
520	ERS040308011520		

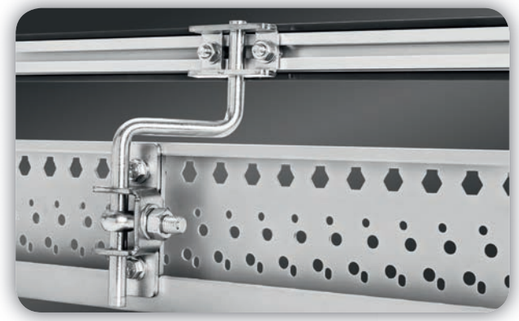


BELT FOR TYPE 53

Art nr	
ERS040305000007	FLAT BELT CORD; PA RUBBERIZED 30x2.2

COVER CAPS

040306080001
040306080002
040306080003
040306080004



ADJUSTABLE SIDE GUIDE TYPE 3

Art nr
ERS040311010002

ROUND BELT FOR TYPE 51 & 52

C.t.C.	Art nr
75	ERS040305030075
100	ERS040305030100
125	ERS040305030125

POLY-V BELT ROLLER FOR TYPE 51 & 52

C.t.C.	Art nr
75	ERS040305031075
100	ERS040305031100
125	ERS040305031125

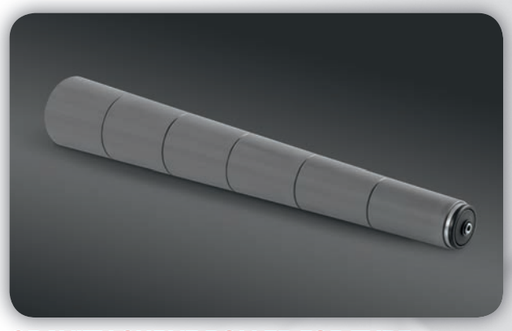
STRAIGHT CONNECTOR

Art nr	
ERS040305040000	ERS STRAIGHT CONNECTOR

BRACKET

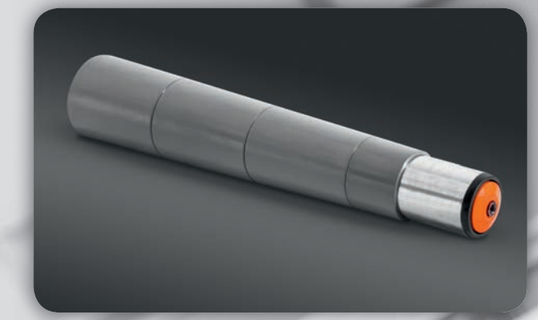
Art nr	
ERS040311020000	SENSOR BRACKET
ERS040311020001	REFLECTOR BRACKET

ACCESSOIRES



GRAVITY CURVE ROLLER FOR TYPE 50

Wide	Art nr
420	ERS040308020420
620	ERS040308020620
820	ERS040308020820

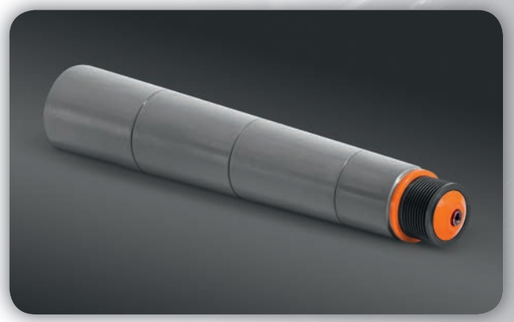


GRAVITY CURVE ROLLER FOR TYPE 53

Wide	Art nr
420	ERS040308030420
620	ERS040308030620
820	ERS040308030820

ROUND BELT CURVE ROLLER FOR TYPE 51 & 52

Wide	Art nr
420	ERS040308040420
620	ERS040308040620
820	ERS040308040820



POLY-V BELT CURVE ROLLER FOR TYPE 51 & 52

Wide	Art nr
420	ERS040308041420
620	ERS040308041620
820	ERS040308041820

WHAT ARE THE APPLICATION NOTES FOR?

The Design Notes help you to select the conveying modules most suitable for your conveying task.

The catalogue has six conveyor module chapters:

- Gravity type ERS 50
- 24 V DC Rollerdrive ERS 51
- 24 V DC Smart conveyor ERS 52
- Belt driven ERS 53
- Belt conveyors ERS 70
- Support stands ERS 60

The sixt chapter lists accessories ERS

If you know your conveying task and your transport materials you can select the most suitable conveyor module chapter with the aid of the diagram in the chapter ``Product selection – here's what to do´´.

Further selection of the conveyor elements is shown in the following chapters, ranging from general principles to selection of the correct power capacity for a conveyor section.

Your task and your transport material

You must ask three questions prior to selection of the conveyor modules:

What task must the conveyor technology fulfil?

- Transporting and/or accumulation
- Sorting and/or distributing

What properties does your transport material have?

- Length, width and height: minimum and maximum dimensions of the material to be transported together on one line
- Weight: minimum and maximum weights of the unit load, ideally assigned to the dimensions
- Composition and surface of the transport material base: the base for example determines the suitability for roller conveyors

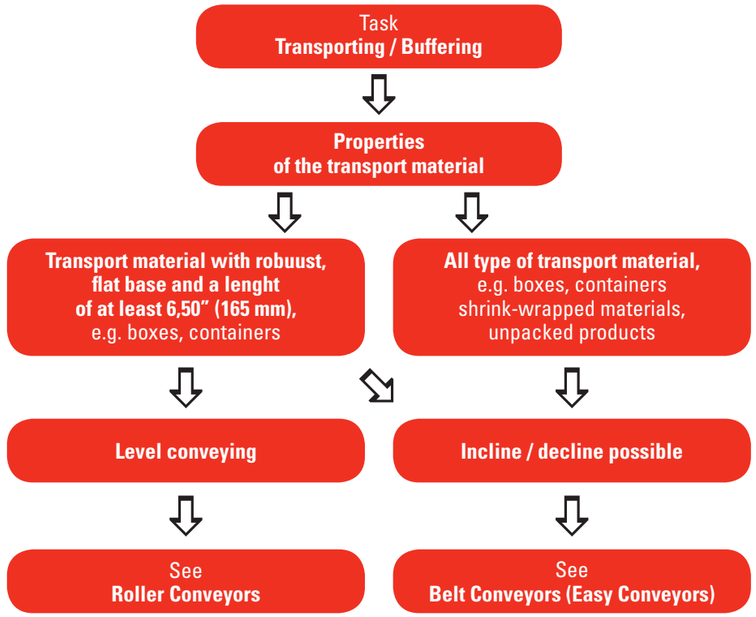
Does the composition of your transport material or the surroundings require special measures?

- Are extreme temperatures, a high level of humidity or chemical influences prevalent?
- Is static electricity likely to be a problem?
- Is the material fragile or problematic in any other way?

Your Logic customer consultant will be glad to help you in answering these questions. Logic particularly recommends a consultation with regard to special measures.

Product selection – here's what to do

The task to be carried out by the conveying technology guides you via the following diagram directly to the three main chapters of the catalogue: roller conveyors, belt conveyors and sorting and distributing.



After selecting the chapter suited to your conveying requirements, you can then make a more detailed product selection with the corresponding overview pages according to the properties of your transport material and the desired functions.

The conveying elements are listed on the overview pages with the following properties:

- Maximum load capacity
- Maximum conveyor speed
- Function of the conveyor module:
  - Non-contact accumulation
  - Accumulation
  - Conveying
  - Separating
  - Synchronising
  - Reversing

SOLUTIONS WITH ROLLER CONVEYORS

BASIC PRINCIPLES FOR TROUBLE-FREE TRANSPORT

In order to transport material flawlessly upon a roller conveyor, the following basic principles must be adhered to:

Roller pitch
The roller pitch P must be selected so that at least three conveyor rollers are below the transport material at any one time:

$$P \leq \frac{L}{3}$$

P	Roller pitch in mm
L	Transport material length in mm

Load capacity
The weight of the transport material must be distributed upon the load-bearing conveyor rollers so that the maximum load capacity of the individual conveyor rollers is not exceeded. This may mean that more than three conveyor rollers must support the transport material.

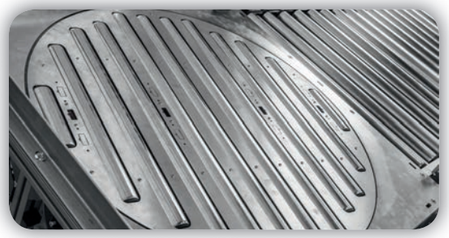
Clearance
With straight sections, the clearance LW of the conveyor consists of at least the width of the transport material + 50 mm:

$LW \geq B + 50mm$

LW	Clearance in mm
B	Transport material width in mm

In the following cases a greater clearance must be selected:

- The following applies with conveyors into which the transport material is to be diverted: LW> B + 100 mm
- For curves



CLASSIFICATION OF ROLLER CONVEYORS

Logic classifies roller conveyors according to weight classes and drive technology.

Weight classes
Logic divides conveyor modules into the following classes according to the weight of transport material:

- Up to 30 kg: **Light**
- Up to 100 kg: **Medium**
- Up to 250 kg: **Heavy**

This catalogue covers the **Light, Medium** and **Heavy** classes. Please contact your Logic customer consultant for information concerning the other classes.

Medium class

Transport material	Boxes, plastic containers, trays, tyres etc.
Load capacity	0 to 100 kg
Conveyor speed	0.2 to 1.2 m/s
Clearance LW	420 - 620 - 820 mm
Roller pitch P	75 - 100 - 125 mm
Rollers	Steel, zinc-plated
Ambient temperature	-5 to +50 °C or +5 to +40 °C (depending upon product)

Heavy class

Transport material	Castings, small pallets, automotive components, trays etc.
Load capacity	0 to 250 kg
Conveyor speed	0.2 to 2 m/s
Clearance LW	420 - 620 - 820 mm
Roller pitch P	Depends upon product
Rollers	Steel, zinc-plated
Ambient temperature	-5 to +50 °C

Drive classes
Logic divides conveyor modules according to drive technology into the following classes:

- Gravity roller conveyors
- Driven roller conveyors

Gravity gravity conveyors are used as low-cost, simple solutions for many conveying areas. The transport material is moved via gravity (angle of conveyor) or manually. Optional speed controllers limit the conveyor speed of the transport material on declined roller conveyors.

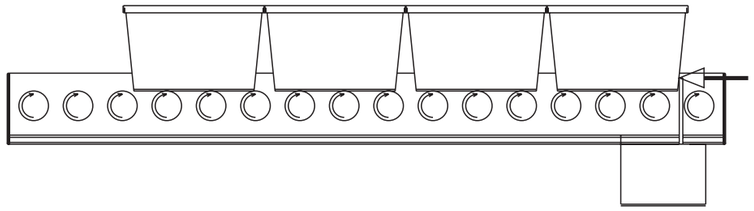
Driven conveyors are used for the continuous transport, storage and distribution of transport material, and throughput can be precisely set. Accurate positioning of the material carried on the conveying line is possible as well as automatic diverting to or from the conveyor.

SOLUTIONS WITH ROLLER CONVEYORS

GENERAL NOTES ABOUT ROLLER CONVEYOR TECHNOLOGY

Accumulation pressure
The accumulation pressure FL is defined as the force required to prevent the moving forward of the transport material being conveyed. Accumulation pressure values refer to a stable conveying situation, i. e. with constant conveyor speed and without consideration of supplementary influences. The following applies:

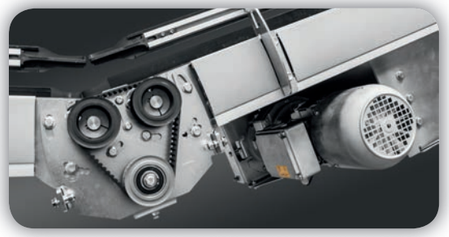
$F_L = m_T \times g \times \mu$

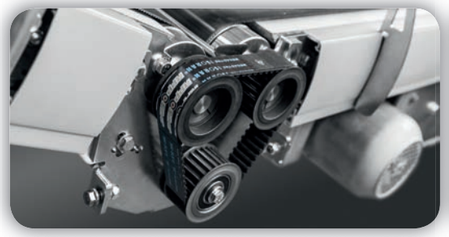


F_L	Accumulation pressure in N
m_T	Total $m_1 + m_2 + m_3 + ...$ in kg
g	Gravitational acceleration in N/kg
μ	Coefficient of friction

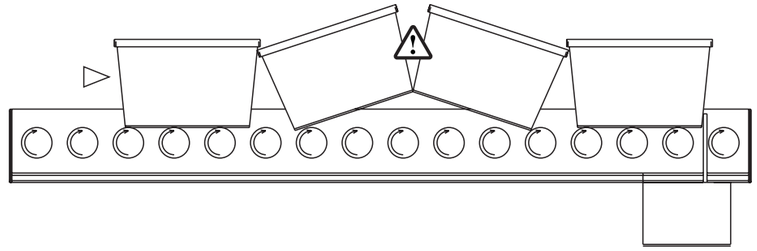
Drive type	**μ**
Friction conveyor rollers	0,06
Drive shaft	0,20
Round belt rollers	0,25
Fixed drive* with chain, tooth belt or PolyVee belt	~ 0,35

* With use of a fixed drive, the value for μ may vary according to the product and the roller material.





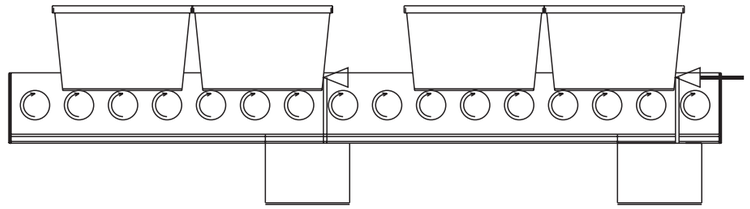
Concertina effect
Excessive accumulation pressure can cause a line of accumulating boxes to concertina. This may damage transport material and cause personal injury.



The concertina effect may be prevented by the following measures:

• Overhanging stops at the danger point

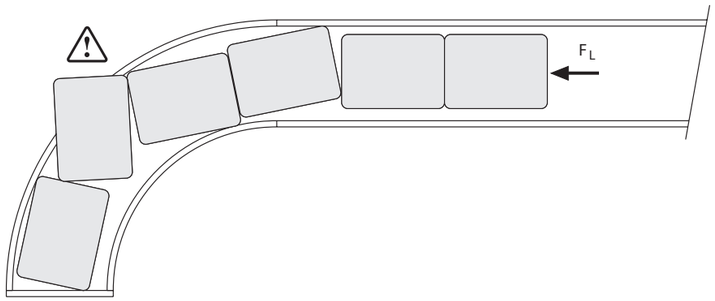
• Supplementary stops



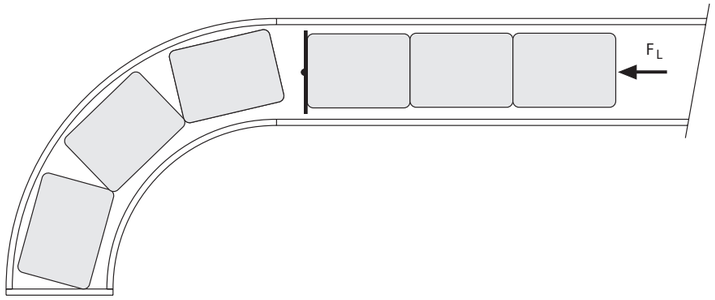
SOLUTIONS WITH ROLLER CONVEYORS

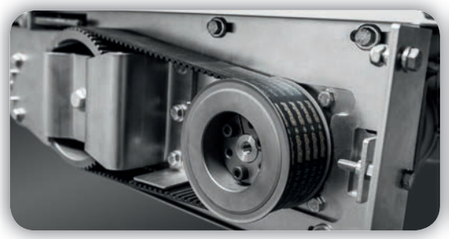
Ejection of transport material in curves
Logic recommends avoiding the accumulation of transport material in curves, except with zero pressure accumulation conveyor systems.

As accumulation pressure creates forces that project outwards, transport material on the curve section may be pushed over the side of the conveyor. This may damage transport material and cause personal injury.



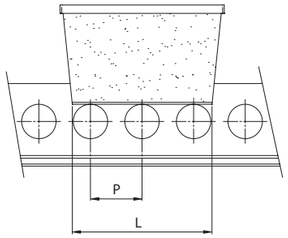
The accumulation pressure in a curve may be prevented by taking the following measures:
- An additional blade stop immediately before the curve



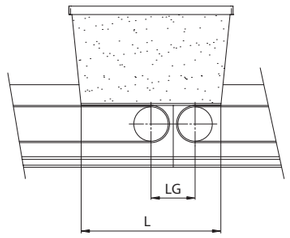


Trouble-free transport
The roller pitch and the dimensions of the transition gap between two conveyors are highly important factors for trouble-free transport.

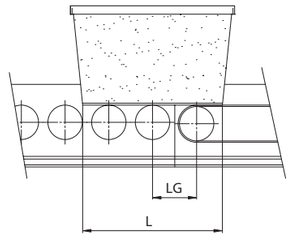
Transport disturbances can be prevented by taking the following measures:
- The roller pitch P must be selected so that at least three rollers support the transport material



- The transition gap LG for all conveyors should be selected so that it consists of less than one third of the transport material length



- With transition between belt and roller conveyors, the roller pitch P and transition gap LG should be selected so that the gap is less than one third of the transport material length, and when material exits a conveyor at least two conveyor rollers are below the transport material



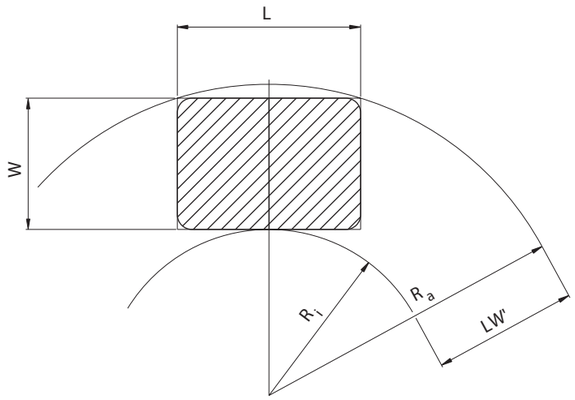
LG	Transition gap in mm
L	Length of transport material in mm
P	Roller pitch in mm

SOLUTIONS WITH ROLLER CONVEYORS

CALCULATIONS

Clearance in curves
The clearance LW in curves must be greater than with straight sections. The clearance depends upon the dimensions of the transport material and corresponds to the outer radius minus the inner radius.

If the inner radius is known, the minimum outer radius can be calculated as follows:



$$R_a = \sqrt{(R_i + W)^2 + (L/2)^2}$$

The clearance LW is calculated as follows:

$$LW' = R_a - R_i$$
$$LW = LW' + 50$$

L	Maximum length of the transport material in mm
W	Maximum width of the transport material in mm
LW	Clearance (lane width) in mm
LW‘	Clearance (lane width) in mm, calculated
R_a	Outer radius of the curve with rectangular transport material in mm
R_i	Inner radius* of the curve in mm

* The inner radius with roller conveyors is normally of 820 mm.

Logic curve modules are available with clearance values LW.

Throughput
The throughput Tp of a conveyor system is specified in units of quantity per hour and is dependent on the transport material size and conveyor speed v.

The window size T is required for calculation of the throughput. The window size T is the distance from the leading edge of a transport unit to the leading edge of a subsequent transport unit regardless of the actual length of the unit. The following applies for straight conveying sections:

$$Tp = \frac{3.600 \times v}{T}$$

Tp	Throughput in units per hour
v	Conveyor speed in m/s
T	Window dimensions in mm

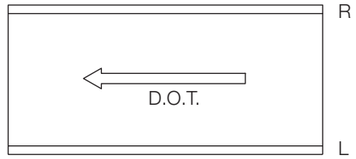
With merging and diverting, throughput is additionally influenced by the actual length and weight of the transport material as well as the transfer cycle. Please contact your Logic customer consultant for calculating.

SIDE PROFILES OF THE ROLLER CONVEYOR MODULES

Definition of the conveyor sides
Each module has a side profile on both the left and right sides. In the case of driven modules, a differentiation is made between drive side and non-drive side with side profiles. Drive technology is situated on the drive side. The side with the control electronics of the conveyor is specified as the electric side (usually the non-drive side).

1	Drive side
2	Non-drive side (electric side)

The designations right (R) and left (L) correspond to the direction of travel D.O.T.:

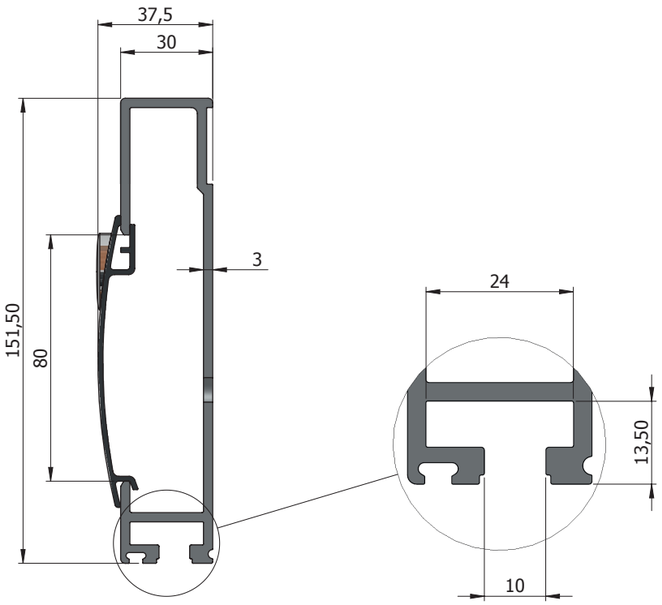


SOLUTIONS WITH ROLLER CONVEYORS

Properties of the Logic profiles
Logic differentiates between two main side profiles designated according to their total height.

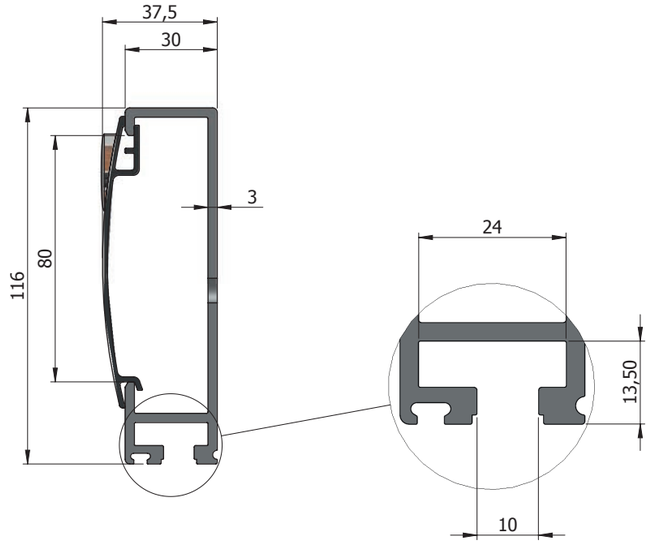
Profile H

- Standard profile for all roller conveyor modules
- Extruded, anodised aluminium profile for structural stability
- Forms an integrated, 31,5 mm high side guide (31,5 mm above top of roller)
- Grey PVC Cover
- The space behind the cover can be used as a cable channel or can be used on-site for accommodation of the control components
- With T-slot for peripheral devices, e.g. additional guides, sensors and support stands



Profile L

- Extruded, anodised aluminium profile for structural stability
- Enables sideways movement e. g. for 90° transfers, push over sections or lanes with overhanging transport material. The top of the profile is 4 mm below the top of roller
- Grey PVC Cover
- The space behind the cover can be used as a cable channel or can be used on-site for accommodation of the control components
- With T-slot for peripheral devices, e. g. sensors and support stands



INFORMATION ABOUT ROLLER CONVEYORS PRODUCT TYPES

Drive side, electric side, side profiles
With the straight Smart Conveyor, the drive side and the electric side with control can be selected and specified in the product configurator.

With straight conveyors the control is in Profile H. This means that with a HL side profile combination, the electric side must be the left side. For information about the side profiles see P84-85.

The control is situated on the outer profile with curves and opposite the transfer side with transfers.

Selection of the RollerDrive
The selection of the RollerDrive depends mainly upon the following factors:
- Conveyor speed and rated torque define the maximum load capacity
- The construction type influences the lifetime. The EC (electronically commutated) construction type has a significantly higher lifetime when compared to BT (mechanically commutated)

The following table shows the main properties for selection of the RollerDrive:

	Rollerdrive 24 v DC
Max. conveyor speed	1,75 m/s
Max. load capacity	80 kg
Max. rated torque	11.7 Nm*
Mechanical power	32 W
Noise level	50db(A)
Max. number of starts/ stops per minute	30
Commutation type	Electronic, internal
Min. lifetime	20,000 h

* depends on the gear speed influenced by the maximum speed.

Selection of the drive medium
Three drive mediums are available:

PU round belt Ø 5 mm
- For transport material to max. 50 kg/zone
- For max. 11 idlers per zone (i.e. 11 round belts per zone)
- Reduced acceleration and braking performance due to slippage

PolyVee belt
- For transport material to max. 80 kg/zone
- For max. 20 idlers per zone (i.e. 20 PolyVee belts per zone)
- Hardly any slippage, therefore very good acceleration and braking performance

Belt (conveyor belt on the rollers)
- For zero accumulation pressure transport of units that are unsuitable for roller conveyors
- Also for compact transport units
- Closed belt
- Only available for straight sections

ROLLERDRIVE CONVEYOR

Zones
Each RollerDrive Conveyor conveyor line is divided into zones defined from the maximum length of the material to be conveyed.

Each zone has:
- A RollerDrive
- Idlers driven via belts
- A DriveControl control

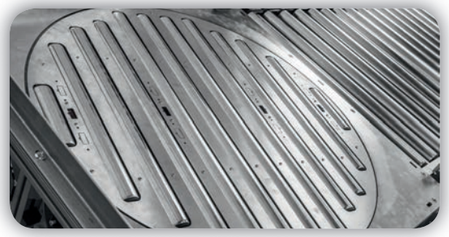
In comparison with the Smart Conveyor, a RollerDrive Conveyor has no internal logic and is therefore typically controlled by a higher level control (PLC). The control is carried out via the Logic DriveControl.

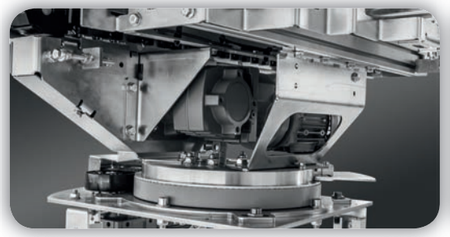
The number of zones possible in a straight module is defined by module length divided by zone length. The maximum module length is 3000 mm.

$$Z = \frac{ML}{ZL}$$

Z	Number of zones
ML	Module length in mm
ZL	Zone length in mm

Selection of the RollerDrive and the drive medium
Selection criteria for the RollerDrive and the drive medium are the same for the RollerDrive Conveyor as the Smart Conveyor P66.





LOGIC CONVEYORS

INFORMATION ABOUT ROLLER CONVEYOR PRODUCT TYPES

With terminal modules, the drive side (left or right in the direction of travel) must be defined. The following representations clarify the possible drive sides and positions of the end terminals.

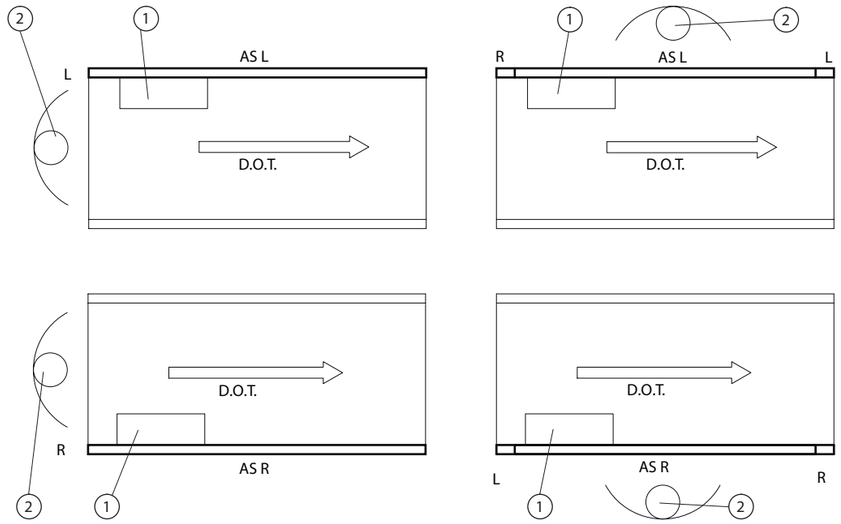


Fig.: Drive side right (R) and left (L) and end terminals

D.O.T.	Direction of travel
1	Motor
2	End terminal
AS R	Drive side right
AS L	Drive side left

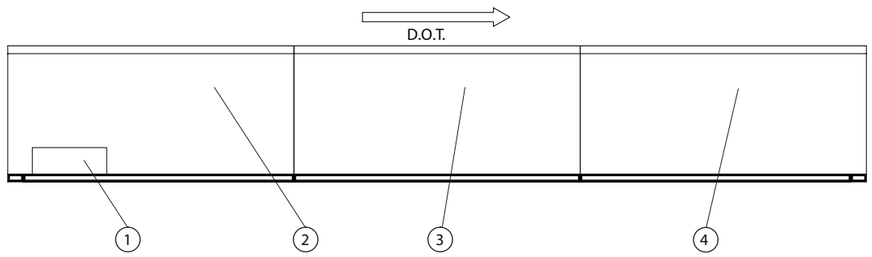


Fig.: Example of a conveyor line with three modules

D.O.T.	Direction of travel
1	Motor
2	Drive module, terminal left: DL; Drive side right: R
3	Intermediate slave module: SI; Drive side right: R
4	Slave module, terminal right: SR; Drive side right: R

PolyVee Roller Conveyor

The maximum number of rollers on each side of the motor is 50. The power capacity must not exceed 0.75 kW.
With speeds greater than 1.5 m/s, a soft start is recommended for the motor.

The required power capacity is calculated as follows:

$$p = \frac{v \times m \times 0{,}1}{100}$$

p	Power capacity in kW
v	Conveyor speed in m/s
m	Total weight of the transport units per drive in kg
μ	Coefficient of friction = 0.1

Planning conveyor lines with a toothed belt

PolyVee Modules must be ordered according to their position in the conveyor line. There are two PolyVee module types:
- Drive module
- Slave module (module without own drive)

INFORMATION ABOUT DIMENSIONS OF FEEDERS, DIVERTERS AND TRANSFER

Dimensions of feeders, diverters and transfers

The angle and clearance of a feeder or diverter module define the dimensions of the module.
The following tables show the standard dimensions for modules.

Rollerdrive conveyor merge ERS 51
Smart conveyor merge ERS 52

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 75 mm		with angle α = 30° and roller pitch P = 75 mm	
420	420	900	637,5	1200	937,5
620	420	900	637,5	1200	937,5
820	420	900	637,5	1200	937,5
420	620	1200	787,5	1500	1312,5
620	620	1200	787,5	1500	1312,5
820	620	1200	787,5	1500	1312,5
620	820	1500	1012,5	1950	1612,5
820	820	1500	1012,5	1950	1612,5

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 100 mm		with angle α = 30° and roller pitch P = 100 mm	
420	420	1000	650	1200	950
620	420	1000	650	1200	950
820	420	1000	650	1200	950
420	620	1200	800	1600	1325
620	620	1200	800	1600	1325
820	620	1200	800	1600	1325
620	820	1500	1025	2000	1625
820	820	1500	1025	2000	1625

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 125 mm		with angle α = 30° and roller pitch P = 125 mm	
420	420	1000	662,5	1250	962,5
620	420	1000	662,5	1250	962,5
820	420	1000	662,5	1250	962,5
420	620	1250	812,5	1625	1337,5
620	620	1250	812,5	1625	1337,5
820	620	1250	812,5	1625	1337,5
620	820	1500	1037,5	2125	1637,5
820	820	1500	1037,5	2125	1637,5

Smart conveyor diverter ERS 52

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 75 mm		with angle α = 30° and roller pitch P = 75 mm	
420	420	850	637,5	1150	937,5
620	420	850	637,5	1150	937,5
820	420	850	637,5	1150	937,5
420	620	1100	787,5	1550	1312,5
620	620	1100	787,5	1550	1312,5
820	620	1100	787,5	1550	1312,5
620	820	1425	1012,5	1950	1612,5
820	820	1425	1012,5	1950	1612,5

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 100 mm		with angle α = 30° and roller pitch P = 100 mm	
420	420	900	650	1200	950
620	420	900	650	1200	950
820	420	900	650	1200	950
420	620	1100	800	1600	1325
620	620	1100	800	1600	1325
820	620	1100	800	1600	1325
620	820	1400	1025	2000	1625
820	820	1400	1025	2000	1625

Clearance LW in mm	Clearance LWT in mm	Module Length ML in mm	Face Length F in mm	Module length ML in mm	Face length F in mm
		with angle α = 45° and roller pitch P = 125 mm		with angle α = 30° and roller pitch P = 125 mm	
420	420	900	662,5	1150	962,5
620	420	900	662,5	1150	962,5
820	420	900	662,5	1150	962,5
420	620	1125	812,5	1625	1337,5
620	620	1125	812,5	1625	1337,5
820	620	1125	812,5	1625	1337,5
620	820	1475	1037,5	2100	1637,5
820	820	1475	1037,5	2100	1637,5

Belt driven high speed Pop-Up ERS 53

Clearance LW in mm	Module length ML in mm	Face length LM in mm
		with angle α = 30° and roller pitch P = 75 mm
420	1425	937,5
620	1800	1312,5
820	2250	1612,5

Clearance LW in mm	Module length ML in mm	Face length LM in mm
		with angle α = 30° and roller pitch P = 100 mm
420	1400	950
620	1800	1325
820	2200	1625

Classification of Logic Belt Conveyors

Belt conveyors are classified according to the following features:
- Use as a horizontal conveyor or incline/decline conveyor
- Conveyor length
- Lane width
- Conveyor speed
- Max. load capacity / m
- Max. overall load capacity / drive

Transport material	Boxes, packages, plastic containers, plastic parts, trays etc.
Load capacity	up to 50 kg/m
Max. total load capacity	600 kg
Conveyor speed	0.1 to 2.6 m/s
Lane width	420, 520, 620, 820 mm, others on request
Conveyor length	600 to 30000 mm
Incline/decline	Max. 22,5°
Ambient temperature	-5 to +50 °C

Horizontal belt conveyors
Horizontal belt conveyors can be supplied completely assembled up to a length of 6000 mm. Longer conveyors are always made up of several module segments. These segments must be assembled and adjusted on-site.

The required power capacity depends upon the conveyor length, the belt speed and the belt load of the conveyor. Calculation of the required power capacity is carried out by Easy Conveyors in accordance with your specifications. As a point of reference, you can calculate the power capacity with the simplified formula on P124.

Head drive with drum motor is possible for belt conveyor ERS70-1 if the overall weight of the transport material is less than 220 kg and the conveying speed does not exceed 1.0 m/s. If higher loads and/or speeds are required, a center drive is used.

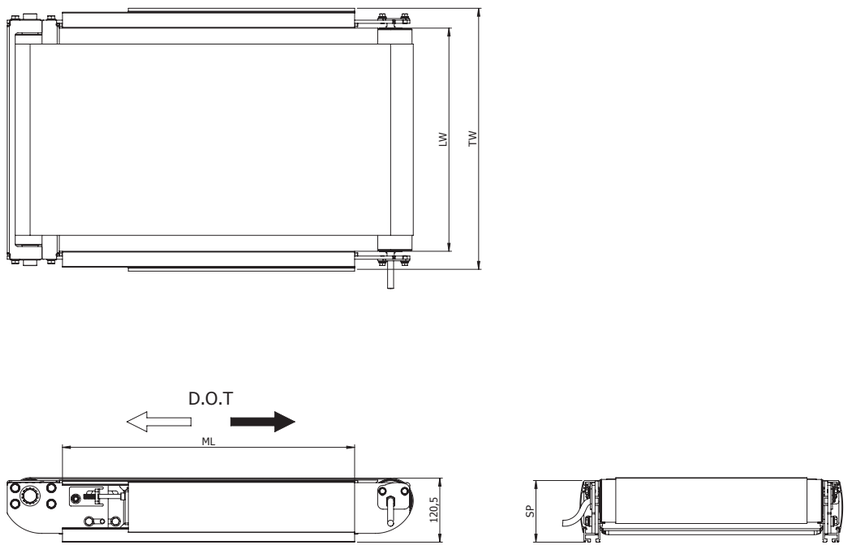


Fig.: Logic Belt Conveyor ERS70-1 (head drive)

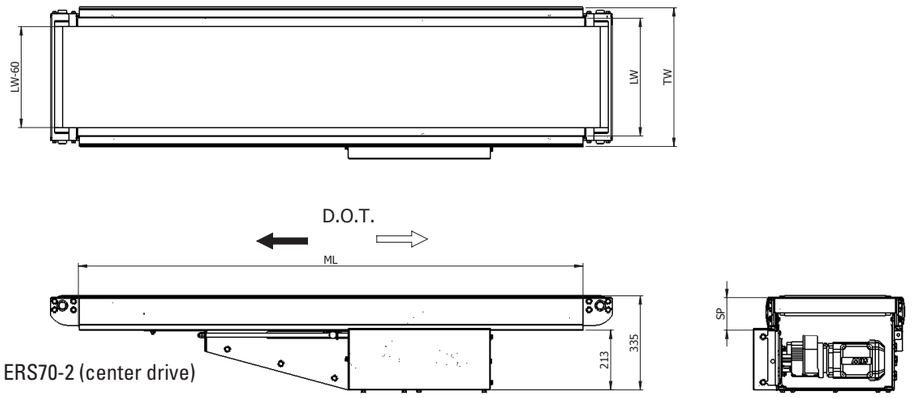


Fig.: Logic Belt Conveyor ERS70-2 (center drive)

CL	Conveyor length
D.O.T.	Conveyor direction

Incline and decline conveyors
Belt Conveyors ERS70-3/70-4/70-5 with incline/decline are used if height differences have to me managed. The conveyors can be equipped above with a horizontal component with a fixed angled frame as well as below with an incline power feeder or decline power feeder.

The maximum angle of incline or decline depends on the material to be conveyed. For containers and cardboard boxes, the angle should be max. 22,5° to ensure a trouble-free transport.

The drive type is a center drive with shaft-mounted gear motor. The motor typically has a brake with a brake voltage of 400 V.

The required power capacity depends upon the conveyor length, the construction form of the belt conveyor, the belt speed and the belt load of the conveyor. The calculation of the required power capacity (in kW) is performed by Easy Conveyors according to your specifications.

Note about supports:
For incline and decline conveyors, use the ERS60 adjustable supports. With an infeed height or discharge height T.O.B. 2 > 2000 mm, cross bracing is needed for stability.

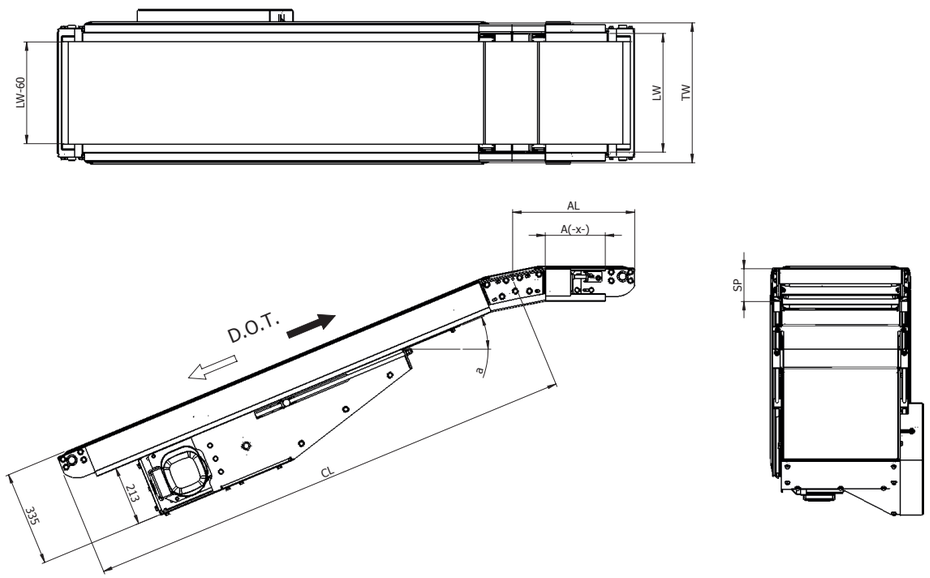


Fig.: Logic Belt Conveyor ERS70-3 (center drive + top arch)

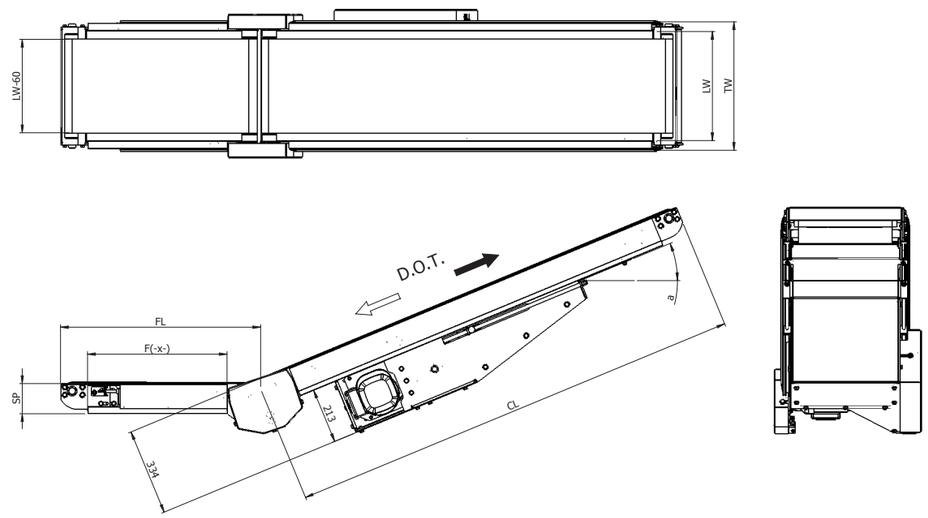


Fig.: Logic Belt Conveyor ERS70-4 (center drive + incline)

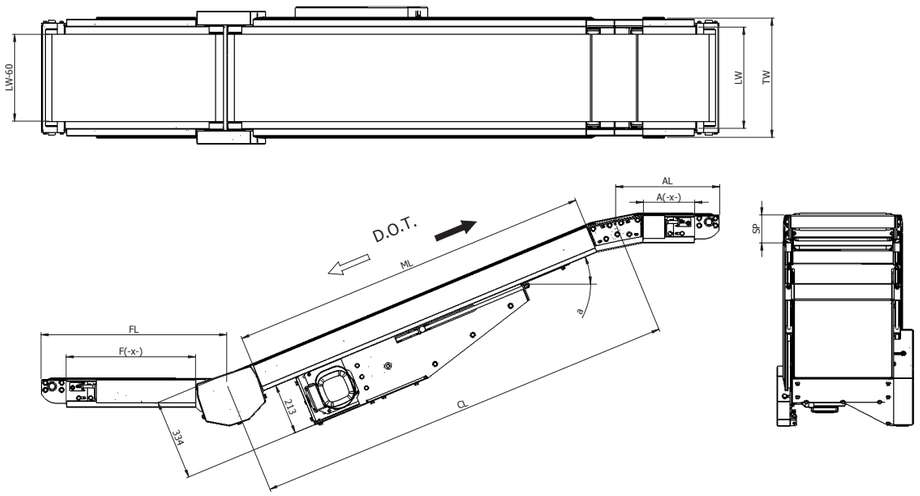


Fig.: Logic Belt Conveyor ERS70-3 (center drive + top arch)

CL	Conveyor length
BL	Bottom length
TL	Top length
D.O.T.	Conveyor direction
T.O.B.	Onload/discharge height
α	Angle, max. 22.5°

Calculations

Throughput
The throughput TP of a belt conveyor is given in units/hour and depends on the transport material dimensions and conveying speed.

The window size T is required for calculating the throughput. The window size T is the distance from the front edge of a transport material to the front edge of the following transport material, irrespective of the actual length of the transport material or zone length.

For the precise calculation of the power capacity T_P, please contact your Interroll customer representative. T_P for straight paths can roughly be calculated as follows:

$$T_P = \frac{3.600 \cdot v}{T}$$

T_P	Throughput in units/hour
v	Conveying speed in m/s
T	Window size in m.

With merging and diverting, throughput is additionally influenced by the actual length and weight of the transport material as well as the transfer cycle. Please contact your Interroll customer consultant for calculations.

Power capacity
The power capacity P of an Interroll belt conveyor (applies only to horizontal conveyors) is specified in kW. The power capacity depends on the overall weight m of the transport material in kg and the conveying speed v in m/s.

For the precise calculation of the power capacity P, please contact your Interroll customer representative. P can be calculated with the simplified formula:

P = v · m · 0,005

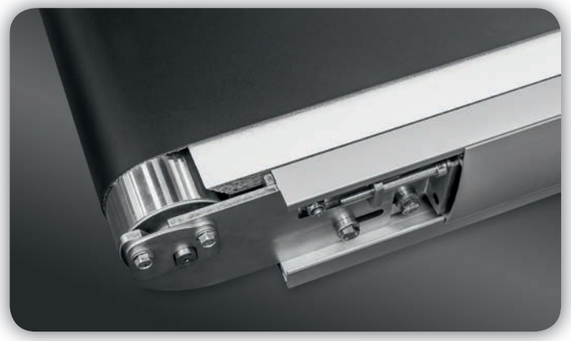
p	Power capacity in kW
v	Conveying speed in m/s
m	Overall weight of transport material in kg

For example, the power capacity P at a conveying speed of 0.5 m/s and an overall weight of 200 kg is calculated as follows:

P = 0,5 m/s · 200 kg · 0,005 = 0,50 kW ms

Since the actual power capacity should always be higher than the calculated value, the selection of a power capacity of at least 0.55 kW is recommended for the example.

Easy Conveyors reserves the right to select a drive that meets the factory standard.



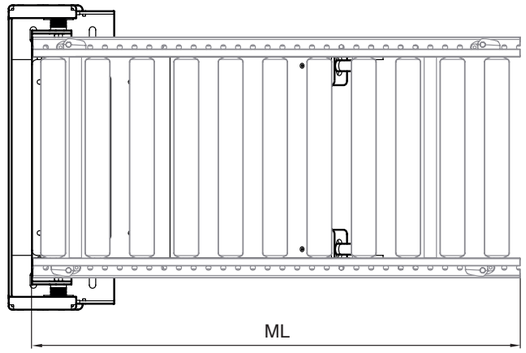
PRODUCT DESCRIPTION

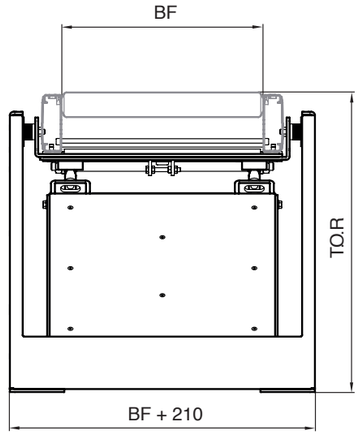
The lift-up gate swivels upward to provide a walkway, or access from one side of the conveyor to the other. This allows access to the rear of the conveyor, and the ability to plan quicker escape routes, in case of an emergency. The swivel movement is operated by an innovative rotary mechanism.

TECHNICAL DATA

General technical data	Max. load capacity	100 kg (incl. fitted module)
	Ambient temperature	-5 to +40 °C
	Incline/decline	Not suitable.

DIMENSIONS





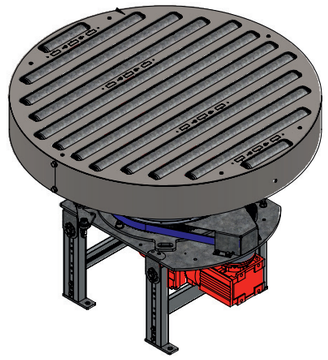
BF	Between frames	420, 520, 620, 820 mm, others on request
T.O.R.	Min. height of top edge of roller	700 mm
ML	Module length	1000 to 1800 mm
	Channel width	ML - 220 mm

Scope of supply
- The module is fully assembled
- Please order fitted conveyor module separately

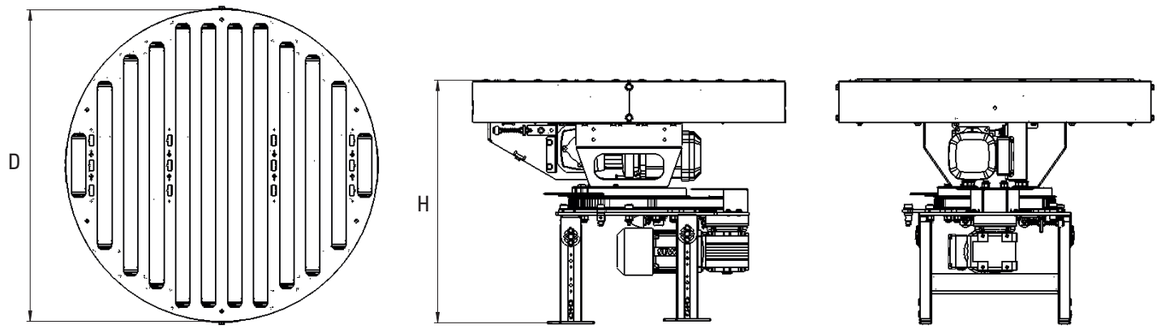
Order information
Visit us at www.easy-conveyors.com

PRODUCT DESCRIPTION

Changes the direction of product travel by rotation of the product through any angle from 90 up to 270 degrees. Suitable for roller top or belt conveyor top.



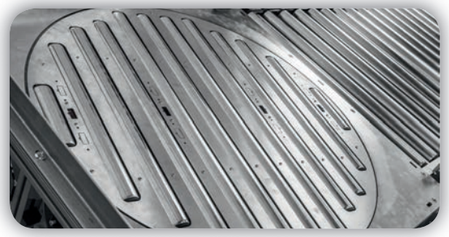
DIMENSIONS

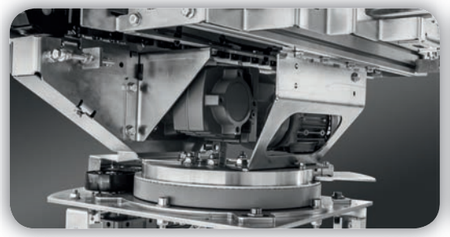


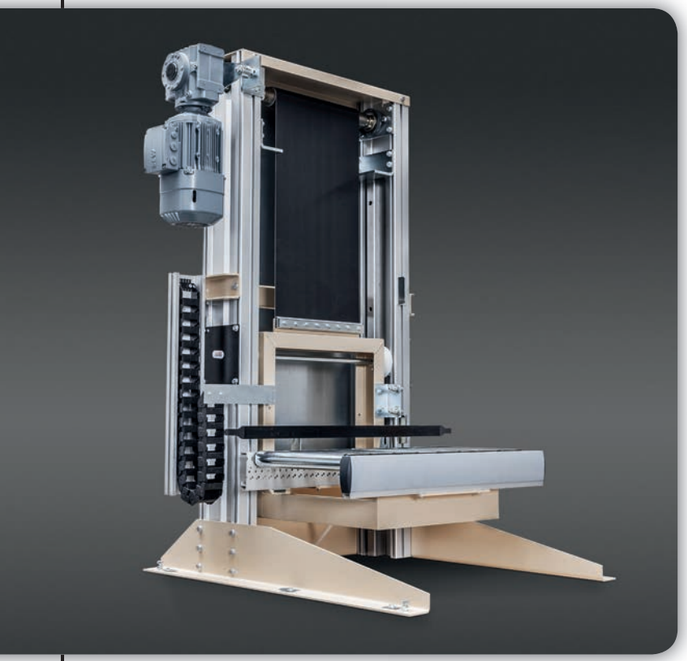
D	500, 600, 900
H	Min. 600 mm, max. 1500 mm

Scope of supply

- The module is fully assembled,
- This product is on request!







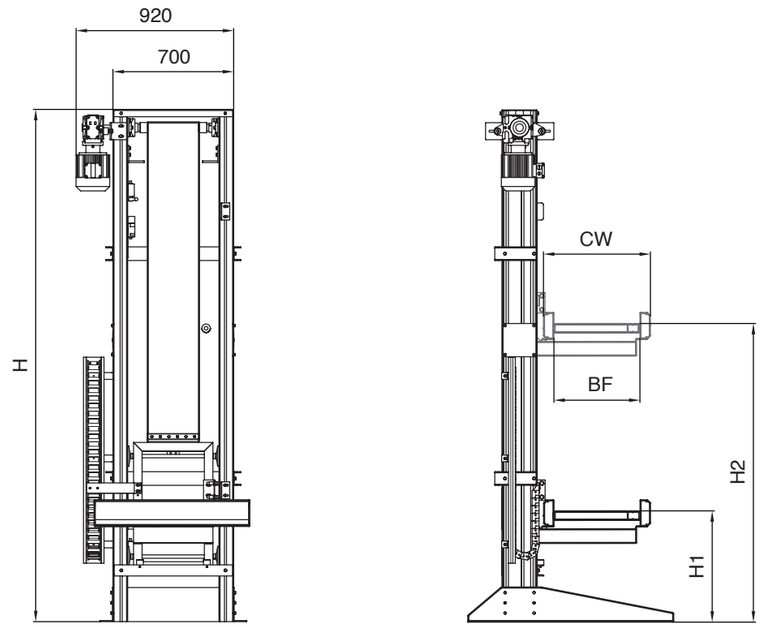
PRODUCT DESCRIPTION

The lifting station consists of a column construction and a carriage upon which a roller conveyor is mounted. A worm gear motor with brake is used as a drive unit to raise and lower the carriage via a belt.

TECHNICAL DATA

General technical data	Max. load capacity	150 kg
	Stroke velocity	0.1 to 0.6 m/s
	Ambient temperature	-5 to +40 °C
	Max. stroke height	6000 mm
	Startup position	2
	Lifting column	200 x 80 mm (aluminum profile)
Drive	Motor type	Worm gear motor with brake, frequency regulation on site
	Rated voltage	400 V/50 Hz/3 phase
	Max. electrical power	2.2 kW
	Drive medium	Belt

DIMENSIONS



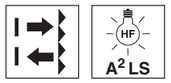
BF	Between frames	420, 520, 620, 820, 840 mm (when using Interroll modules)
H1	Lower level dimension	Min. 300 mm
H2	Upper level dimension	H1 + stroke height
H	Overall height	H2 + 600 (max. 8000 mm)
CW	Width of mounted conveyors	Max. 1300 mm

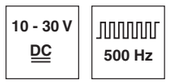
Note: The upper part of the lifting station must be supported on site above an overall height of 4000 mm.

Scope of supply

- The module is fully assembled, including sensor system, but is not electrically cabled.
- Energy chain is pre-installed
- Please request protective grid and safety elements separately
- Without conveyor module

SENSORS





0.02 … 6.0m

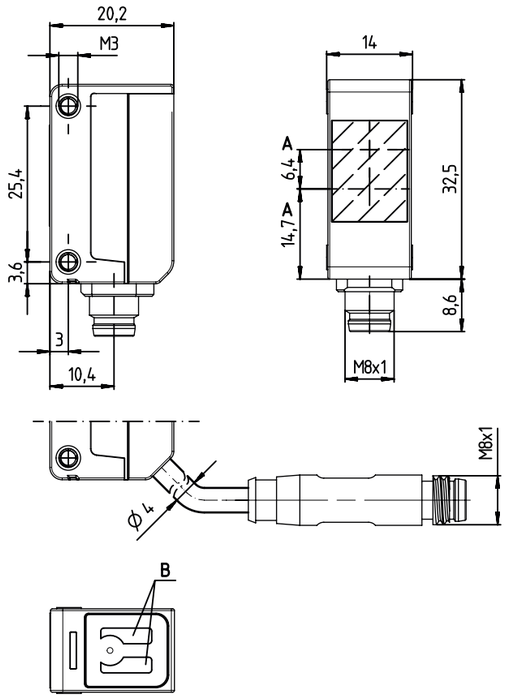
- Polarized retro-reflective photoelectric sensor using visible red light
- Active suppression of extraneous light A²LS
- Fast alignment through *brightVision®*
- Simple mounting with integrated M3 metal threaded sleeves
- Compact installation possible due to cable outlet at the rear or bottom
- Full control through green and yellow indicator LEDs
- Robust plastic housing acc. to IP 67 for industrial application
- Complementary outputs for light/dark switching

Accessories:

(available separately)

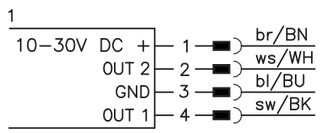
- Mounting systems (BTU 200 ..., BT 200…)
- M 8 connectors (KD …)
- Ready-made cables (K-D …)
- Reflectors
- Reflective tape

Dimensioned drawing



A Optical axis
B Indicator diodes

Electrical connection



Specifications

Optical data

Typ. op. range limit (TK(S) 100x100) [1]		0.02 … 6.0m
Operating range [2]		see tables
Light source		LED (modulated light)
Wavelength		620nm (visible red light, polarized)

Timing

Switching frequency		500Hz
Response time		1ms
Delay before start-up		≤ 300ms

Electrical data

Operating voltage U_B		10 … 30VDC
Residual ripple		≤ 15% of U_B
Open-circuit current		≤ 20mA
Switching output	…/4P…	2 PNP transistor outputs pin 2: PNP dark switching, pin 4: PNP light switching
	…/2N…	2 NPN transistor outputs pin 2: NPN dark switching, pin 4: NPN light switching
Signal voltage high/low		≥ (U_B-2.5V)/≤ 2.5V
Output current		max. 100mA [3]

Indicators

LED green	ready
LED yellow	light path free
Yellow LED, flashing	light path free, no performance reserve

Mechanical data

Housing	plastic
Optics cover	plastic
Weight	20g with M8 connector 40g with 200mm cable and M12 connector 70g with 2m cable
Connection type	M8 connector, 4-pin cable 200mm with M12 connector, 4-pin cable 2m, 4x0.20mm²

Environmental data

Ambient temp. (operation/storage)	-40°C … +60°C/-40°C … +70°C
Protective circuit [4]	2, 3
VDE safety class	III
Protection class	IP 67
Light source	free group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2

1) Typ. operating range limit: max. attainable range without performance reserve
2) Operating range: recommended range with performance reserve
3) Sum of the output currents for both outputs, 50mA when ambient temperatures > 40°C
4) 2=polarity reversal protection, 3=short-circuit protection for all outputs

Tables

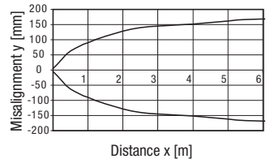
Reflectors			Operating range
1	TK(S)	100x100	0.02 … 4.5m
2	TKS	40x60	0.02 … 3.0m
3	TKS	82.2	0.05 … 3.6m
4	TKS	30x50	0.03… 1.9m
5	TKS	20x40	0.04 … 1.6m
6	Tape 4	50x50	0.08 … 1.4m

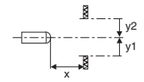
1	0.02			4.5	6.0
2	0.02		3.0	4.0	
3	0.05	3.6	4.5		
4	0.03	1.9	2.5		
5	0.04	1.6	2.2		
6	0.08	1.4	2.0		

Operating range [m]
Typ. operating range limit [m]

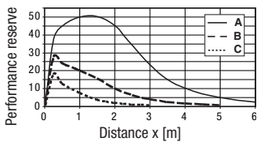
Diagrams

Typ. response behavior (TK 100x100)





Typ. performance reserve



A TKS 100x100
B TKS 40x60
C TKS 20x40

Remarks

- **Approved purpose:**
  This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not to be used for the protection of persons.

M12 | **4 mm**
8 mm
10 mm

10 - 30 V DC | 2 kHz | **non-embedded**

- Slim and short cylindrical metal housing M12
- Chromium-plated brass housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°

IEC 60947... | IEC 60947... | IP 67

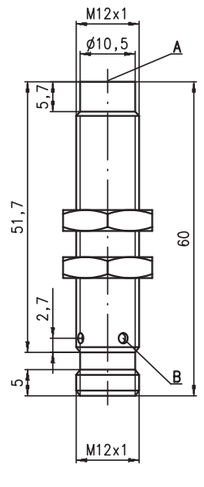
Accessories:

(available separately)

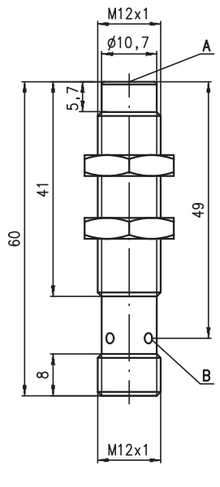
- M12 connectors (KD …)
- Ready-made cables (K-D …)
- Mounting clamp (MC 012…)

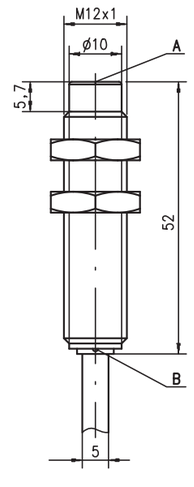
Dimensioned drawing

IS 212…-4N0-S12
IS 212…-8N0-S12



IS 212…-10N-S12

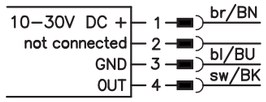




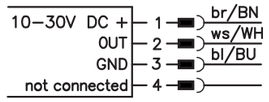
Tightening torque of the fastening nuts < 10Nm !

M12 connector

…NO… (normally open)



…NC… (normally closed)



…NO…-S12 (normally open): 3-pin **or** 4-pin M12 connection cables can be used.
…NC…-S12 (normally closed): **only** 4-pin M12 connection cables can be used.

Specifications

		IS 212…-4N0…	IS 212…-8N0…	IS 212…-10N…
General specifications				
Type of installation		non-embedded installation		
Typ. operating range limit S_n		4.0mm	8.0mm	10.0mm
Operating range S_a		0 … 3.2mm	0 … 6.4mm	0 … 8.1mm
Electrical data				
Operating voltage U_B [1]		10 … 30VDC		
Residual ripple σ		≤ 20% of U_B		
Output current I_L		≤ 200mA		
Open-circuit current I_0		≤ 10mA		
Residual current I_r		≤ 100µA		
Switching output/function	…/4NO…	PNP transistor, make-contact (NO)		
	…/4NC…	PNP transistor, break-contact (NC)		
	…/2NO…	NPN transistor, make-contact (NO)		
	…/2NC…	NPN transistor, break-contact (NC)		
Voltage drop U_d		≤ 2V		
Hysteresis H of S_r		≤ 10%		
Temperature drift of S_r		≤ 10% [2]		
Repeatability		≤ 5% [3]	≤ 5% [3]	≤ 3% [3]
Timing				
Switching frequency f		2kHz	1.5kHz	400Hz
Delay before start-up		≤ 10ms	≤ 10ms	≤ 50ms
Indicators				
Yellow LED (visible from 360°)		switching state		
Mechanical data				
Housing		chromium-plated brass		
Standard surface plate		12 x 12mm², Fe360	24 x 24mm², Fe360	30 x 30mm², Fe360
Active surface		PBTP		
Weight (M12 plug/cable)		approx. 30g/ approx. 95g		
Connection type		M12 connector 4-pin or cable: 2m, PVC, 3 x 0.34mm², Ø 5.0mm		
Environmental data				
Ambient temperature		-25°C … +70°C		
Protection class		IP 67		
Protective circuit [4]		1, 2, 3		
Standards applied		IEC/EN 60947-5-2		
Electromagnetic compatibility		IEC 60255-5	1kV	1kV
		IEC 61000-4-2	Level 3 air 8kV (ESD)	Level 3 air 8kV (ESD)
		IEC 61000-4-3	Level 3 10V/m (RFI)	Level 3 10V/m (RFI)
		IEC 61000-4-4	Level 3 2kV (Burst)	Level 3 2kV (Burst)

1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
2) Over the entire operating temperature range
3) For U_B = 20 … 30VDC, ambient temperature T_a = 23°C ± 5°C
4) 1=polarity reversal protection, 2=short circuit protection, 3=inductive protection for all outputs

Tables

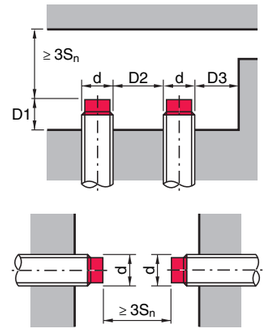
Reduction factors:

for S_n = 4.0mm		for S_n = 8.0mm	
Steel Fe360	1	Steel Fe360	1
Copper	0.50	Copper	0.45
Aluminum	0.50	Aluminum	0.7
Brass	0.60	Brass	0.55
Stainless steel	0.90	Stainless steel	0.75

for S_n = 10.0mm	
Steel Fe360	1
Copper	0.41
Aluminum	0.46
Brass	0.52
Stainless steel	0.74

Mounting

Non-embedded installation:



Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
4.0	6.0	16.0	6.0
8.0	9.0	33.0	14.0
10.0	13.0	30.0	10.0

M18 **8 mm**
20 mm

10 - 30 V DC
2 kHz **non-embedded**

- Slim and short cylindrical metal housing M8
- Chromium-plated brass housing
- Built-in short circuit protection, inductive protection and polarity reversal protection
- LED for switching state visible from 360°

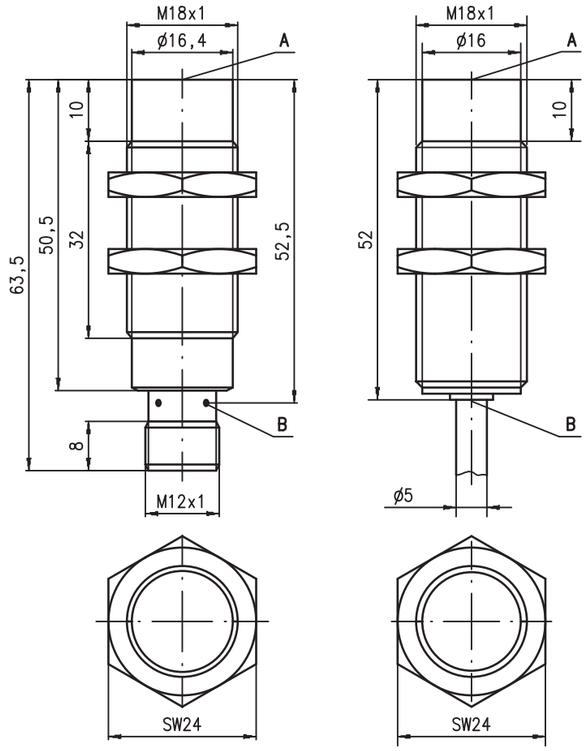
CE ISO 9001 cULus LISTED
IEC 60947... IEC 60947... IP 67

Accessories:

(available separately)

- M12 connectors (KD …)
- Ready-made cables (K-D …)
- Mounting clamp (MC 018…)

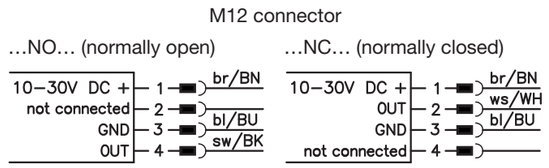
Dimensioned drawing



Tightening torque of the fastening nuts
IS 218…8N0… < 20Nm !
IS 218…20N… < 25Nm !

A Active surface
B Yellow indicator diode

Electrical connection



…NO…-S12 (normally open): 3-pin **or** 4-pin M12 connection cables can be used.
…NC…-S12 (normally closed): **only** 4-pin M12 connection cables can be used.

Specifications

		IS 218…-8N0…	IS 218…-20N…
General specifications			
Type of installation		non-embedded installation	
Typ. operating range limit S_n		8.0mm	20.0mm
Operating range S_a		0 … 6.5mm	0 … 16.2mm
Electrical data			
Operating voltage U_B [1]		10 … 30VDC	
Residual ripple σ		≤ 20% of U_B	
Output current I_L		≤ 200mA	
Open-circuit current I_0		≤ 10mA	
Residual current I_r		≤ 100µA	
Switching output/function	.../4NO...	PNP transistor, make-contact (NO)	
	.../4NC...	PNP transistor, break-contact (NC)	
	.../2NO...	NPN transistor, make-contact (NO)	
	.../2NC...	NPN transistor, break-contact (NC)	
Voltage drop U_d		≤ 2V	
Hysteresis H of S_r		≤ 10%	
Temperature drift of S_r		≤ 10% [2]	
Repeatability		≤ 5% [3]	
Timing			
Switching frequency f		2kHz	200Hz
Delay before start-up		≤ 40ms	≤ 100ms
Indicators			
Yellow LED (visible from 360°)		switching state	
Mechanical data			
Housing		chromium-plated brass	
Standard surface plate		24 x 24mm², Fe360	60 x 60mm², Fe360
Active surface		PBTP	
Weight (M12 plug/cable)		approx. 50g/approx. 120g	
Connection type		M12 connector 4-pin or cable: 2m, PVC, 3 x 0.34mm², Ø 5.0mm	
Environmental data			
Ambient temperature		-25°C … +70°C	
Protection class		IP 67	
Protective circuit [4]		1, 2, 3	
Standards applied		IEC/EN 60947-5-2	
Electromagnetic compatibility		IEC 60255-5	1kV
		IEC 61000-4-2	Level 3 air 8kV (ESD)
		IEC 61000-4-3	Level 3 10V/m (RFI)
		IEC 61000-4-4	Level 3 2kV (Burst)

1) Observe the safety regulations and installation instructions regarding power supply and wiring; for UL applications: only for use in "Class 2" circuits acc. to NEC
2) Over the entire operating temperature range
3) For U_B = 20 … 30VDC, ambient temperature T_a = 23°C ± 5°C
4) 1=polarity reversal protection, 2=short circuit protection, 3=inductive protection for all outputs

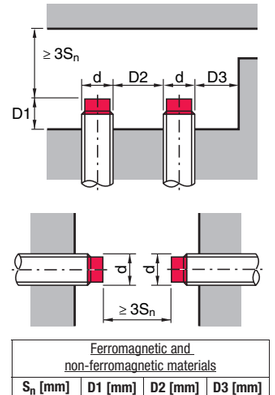
Tables

Reduction factors:

for S_n = 8.0mm		for S_n = 20.0mm	
Steel Fe360	1	Steel Fe360	1
Copper	0.40	Copper	0.35
Aluminum	0.50	Aluminum	0.40
Brass	0.50	Brass	0.45
Stainless steel	0.80	Stainless steel	0.66

Mounting

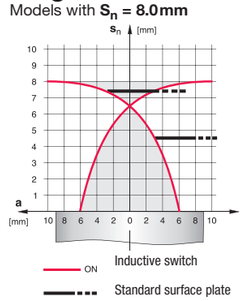
Non-embedded installation:



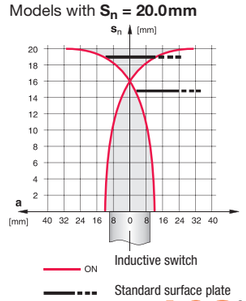
Ferromagnetic and non-ferromagnetic materials			
S_n [mm]	D1 [mm]	D2 [mm]	D3 [mm]
8.0	10.0	32.0	11.0
20.0	20.0	50.0	21.0

Diagrams

Models with **S_n = 8.0mm**



Models with **S_n = 20.0mm**



METAALUNIE CONDITIONS

General Terms and Conditions issued by Koninklijke Metaalunie (the Dutch organization for small and medium-sized enterprises in the metal industry), referred to as the METAALUNIE TERMS AND CONDITIONS, filed at the Registry of the Rotterdam District Court on 1 January 2014. Issued by Koninklijke Metaalunie, P.O. Box 2600, 3430 GA Nieuwegein, the Netherlands. © Koninklijke Metaalunie

Article 1: Applicability

1.1. These Terms and Conditions apply to all offers made by members of Koninklijke Metaalunie, all agreements they conclude and all agreements that may result therefrom, all this in so far as the Metaalunie member is offeror or supplier.

1.2. A Metaalunie member using these Terms and Conditions is referred to as the Contractor. The other party is referred to as the Client.

1.3. In the event of any conflict between the substance of the agreement concluded between the Contractor and the Client and these Terms and Conditions, the provisions of the agreement will prevail.

1.4. These Terms and Conditions may only be used by Metaalunie members.

Article 2: Offers

2.1. All offers are without obligation.

2.2. If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness and will base its offer on the same.

2.3. The prices stated in the offer are based on delivery ex works, Contractor's place of establishment, in accordance with the Incoterms 2010. Prices are exclusive of VAT and packaging.

2.4. If the Client does not accept the Contractor's offer, the Contractor is entitled to charge the Client for all costs incurred by the Contractor in making the offer to the Client.

Article 3: Intellectual property rights

3.1. Unless otherwise agreed in writing, the Contractor retains the copyright and all industrial property rights in the offers made by it and in the designs, pictures, drawings, models (including trial models), software and the like provided by it.

3.2. The rights in the data referred to in paragraph 1 of this article will remain the property of the Contractor irrespective of whether the costs of their production have been charged to the Client. These data may not be copied, used or shown to third parties without the Contractor's prior express written consent. The Client will owe the Contractor an immediately payable penalty of € 25,000 for each breach of this provision. This penalty may be claimed in addition to damages pursuant to the law. 2

3.3. On the Contractor's first demand, the Client must return the data provided to it as referred to in paragraph 1 of this Article within the time limit set by the Contractor. Upon breach of this provision, the Client will owe the Contractor an immediately payable penalty of € 1,000 per day. This penalty may be claimed in addition to damages pursuant to the law.

Article 4: Advice and information provided

4.1. The Client cannot derive any rights from advice or information it obtains from the Contractor if this does not relate to the assignment.

4.2. If the Client provides the Contractor with data, drawings and the like, the Contractor may rely on their accuracy and completeness in the performance of the agreement.

4.3. The Client indemnifies the Contractor from and against all liability to third parties relating to use of the advice, drawings, calculations, designs, materials, samples, models and the like provided by or on behalf of the Client.

Article 5: Delivery period / performance period

5.1. The delivery period and/or performance period will be set by the Contractor on an approximate basis.

5.2. In setting the delivery period and/or performance period, the Contractor will assume that it will be able to perform the assignment under the conditions known to it at that time.

5.3. The delivery period and/or performance period will only commence once agreement has been reached on all commercial and technical details, all necessary data, final and approved drawings and the like are in the Contractor's possession, the agreed payment or instalment has been received and the necessary conditions for performance of the assignment have been satisfied.

5.4. a. In the event of circumstances that differ from those that were known to the Contractor when it set the delivery period and/or performance period, it may extend the delivery period and/or performance period by such period as it needs to perform the assignment under such circumstances. If the work cannot be incorporated into the Contractor's schedule, it will be performed as soon as the Contractor's schedule so permits.
b. In the event of any contract addition, the delivery period and/or performance period will be extended by such period as the Contractor needs to (cause to) supply the materials and parts for such work and to perform the contract addition. If the contract addition cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
c. If the Contractor suspends its obligations, the delivery period and/or performance period will be extended by the duration of the suspension. If the continuation of the work cannot be incorporated into the Contractor's schedule, the work will be performed as soon as the Contractor's schedule so permits.
d. In the event of inclement weather, the delivery period and/or performance period will be extended by the resulting delay.

5.5 The Client is required to pay all costs incurred by the Contractor as a result of delay affecting the delivery period and/or performance period as referred to in Article 5.4. 3

5.6 If the delivery period and/or performance period is/are exceeded, this will in no event entitle to damages or termination.

Article 6: Transfer of risk

6.1. Delivery will be made ex works, Contractor's place of establishment, in accordance with the Incoterms 2010. The risk attached to the good passes to the Client at the time the Contractor makes the good available to the Client.

6.2. Notwithstanding the provisions in paragraph 1 of this article, the Client and Contractor may agree that the Contractor will arrange for transport. In that event, the risk of storage, loading, transport and unloading will be borne by the Client. The Client may insure itself against these risks.

6.3. In the event of a purchase in which a good is exchanged (inruil) and the Client retains the good to be exchanged pending delivery of the new good, the risk attached to the good to be exchanged remains with the Client until it has placed this good in the possession of the Contractor. If the Client cannot deliver the good to be exchanged in the condition that it was in when the agreement was concluded, the Contractor may terminate the agreement.

Article 7: Price change

7.1. The Contractor may pass on to the Client any increase in costing factors occurring after conclusion of the agreement.

7.2. The Client will be obliged to pay the price increase as referred to in paragraph 1 of this article on any of the occasions below, such at the discretion of the Contractor:
a. upon the occurrence of the price increase;
b. at the same time as payment of the principal sum;
c. on the next agreed payment deadline.

Article 8: Force majeure

8.1. The Contractor is entitled to suspend performance of its obligations if it is temporarily prevented from performing its contractual obligations to the Client due to force majeure.

8.2. Force majeure is understood to mean, inter alia, the circumstance of failure by suppliers, the Contractor's subcontractors or transport companies engaged by the Contractor to perform their obligations or perform them in good time, weather conditions, earthquakes, fire, power failure, loss, theft or destruction of tools or materials, road blocks, strikes or work stoppages and import or trade restrictions.

8.3. If the Contractor's temporary inability to perform lasts for more than six months, it will no longer be entitled to suspend performance. On expiry of this deadline, the Client and the Contractor may terminate the agreement with immediate effect, but only as regards such part of the obligations that has not yet been performed.

8.4. In the event of force majeure where performance is or becomes permanently impossible, both parties are entitled to terminate the agreement with immediate effect as regards such part of the obligations that has not yet been performed.

8.5. The parties will not be entitled to compensation for damage suffered or to be suffered as a result of suspension or termination as referred to in this article.

Article 9: Scope of the work

9.1. The Client must ensure that all licences, exemptions and other administrative decisions necessary to carry out the work are obtained in good time. The Client is required upon the Contractor's first demand to send the Contractor a copy of the documents mentioned above.

9.2. The price of the work does not include:
a. the costs of earthwork, pile driving, cutting, breaking, foundation work, cementing, carpentry, plastering, painting, wallpapering, repair work or other construction work;
b. the costs of connecting gas, water, electricity or other infrastructural facilities;
c. the costs of preventing or limiting damage to any goods present on or near the work site.
d. the costs of removal of materials, building materials or waste;
e. travel and accommodation expenses.

Article 10: Changes to the work

10.1. Changes to the work will in any event result in contract variations work if:
a. the design, specifications or contract documents are changed;
b. the information provided by the Client is not factually accurate;
c. quantities diverge by more than 10% from the estimates.

10.2. Contract additions will be charged on the basis of the pricing factors applicable at the time the contract addition is performed. Contract deductions will be charged on the basis of the pricing factors applicable at the time the agreement was concluded.

10.3. The Client will be obliged to pay the price of the contract addition as referred to in paragraph 1 of this article on any of the occasions below, such at the discretion of the Contractor:
a. when the contract addition arises;
b. at the same time as payment of the principal sum;
c. on the next agreed payment deadline.

10.4. If the sum of the contract deduction exceeds that of the contract addition, in the final settlement the Contractor may charge the Client 10% of the difference. This provision does not apply to contract deductions that result from a request by the Contractor.

Article 11: Performance of the work

11.1. The Client will ensure that the Contractor can carry out its activities without interruption and at the agreed time and that the requisite facilities are made available to it when carrying out its activities, such as:
a. gas, water and electricity;
b. heating;
c. lockable and dry storage space;
d. facilities required pursuant to the Working Conditions Act and Working Conditions Regulations.

11.2. The Client bears the risk of and is liable for any damage connected with loss, theft, burning and damage to goods belonging to the Contractor, the Client and third parties, such as tools, materials intended for the work or material used in the work, that are located on the work site or at another agreed location.

11.3. The Client is obliged to adequately insure itself against the risks referred to in paragraph 2 of this article. In addition, the Client must procure insurance of work-related damage as regards the material to be used. Upon the Contractor first demand, the Client must send it a copy of the relevant insurance policy/policies and proof of payment of the premium. In the event of any damage, the Client is required to report this to its insurer without delay for further processing and settlement.

11.4. If the Client fails to perform its obligations as described in the previous paragraphs and this results in delayed performance of the activities, the activities will be carried out as soon as the Client performs its obligations as yet and the Contractor's schedule so permits. The Client is liable for all damage suffered by the Contractor as a result of the delay.

Article 12: Completion of the work

12.1. The work is deemed to be completed in the following events:
a. when the Client has approved the work;
b. when the work is been taken into commission by the Client. If the Client takes part of the work into commission, that part will be deemed to be completed;
c. if the Contractor notifies the Client in writing that the work has been completed and the Client does not inform it in writing as to whether or not the work is approvedwithin 14 days of such notification having been made;
d. if the Client does not approve the work due to minor defects or missing parts that can be rectified or subsequently delivered within 30 days and that do not prevent the work from being taken into commission.

12.2. If the Client does not approve the work, it is required to inform the Contractor of this in writing, stating reasons. The Client must provide the Contractor with the opportunity to complete the work as yet.

12.3. The Client indemnifies the Contractor from and against any claims by third parties for damage to non-completed parts of the work caused by use of parts of the work that have already been completed.

Article 13: Liability

13.1. In the event of an attributable failure, the Contractor is obliged to perform its contractual obligations as yet.

13.2. The Contractor's obligation to pay damages, irrespective of the legal basis, is limited to damage for which the Contractor is insured under an insurance policy taken out by it or on its behalf, but will never exceed the amount paid out under this insurance in the relevant case.

13.3. If, for any reason whatsoever, the Contractor cannot invoke the limitation in paragraph 2 of this article, the obligation to pay damages will be limited to a maximum of 15% of the total assignment amount (excluding VAT). If the agreement comprises parts or partial deliveries, the obligation to pay damages is limited to a maximum of 15% (excluding VAT) of the assignment amount of that part or that partial delivery.

13.4. The following does not qualify for compensation:
a. consequential loss, including business interruption loss, production loss, loss of profit, transport costs and travel and accommodation expenses. The Client may insure itself against this damage if possible;
b. damage to goods in or under its care, custody or control. Such damage includes damage caused as a result of or during the performance of the work to goods on which work is being performed or to goods situated in the vicinity of the work site. The Client may insure itself against such damage if it so desires;
c. damage caused by the intent or wilful recklessness of agents or non-management employees of the Contractor.

13.5. The Contractor is not liable for damage to material provided by or on behalf of the Client where that damage is the result of improper processing.

13.6. The Client indemnifies the Contractor from and against all claims by third parties on account of product liability as a result of a defect in a product supplied by the Client to a third party and that consisted, entirely or partially, of products and/or materials supplied by the Contractor. The Client is obliged to compensate all damage suffered by the Contractor in this respect, including the full costs of defence.

Article 14: Warranty and other claims

14.1. Unless otherwise agreed in writing, the Contractor warrants the proper execution of the agreed performance for a period of six months after delivery/completion. In the event that a different warranty period is agreed, the other paragraphs of this article are also applicable.

14.2. If the agreed performance was not properly executed, the Contractor will decide whether to properly execute it as yet or to credit the Client for a proportionate part of the invoice amount. If the Contractor chooses to properly execute the performance as yet, it will determine the manner and time of execution itself. If the agreed performance consisted (entirely or partially) of the processing of material provided by the Client, the Client must provide new material at its own risk and expense.

14.3. Parts or materials that are repaired or replaced by the Contractor must be sent to the Contractor by the Client.

14.4. The Client bears the expense of:
a. all costs of transport or dispatch;
b. costs of disassembly and assembly;
c. travel and accommodation expenses.

14.5. The Client must in all cases offer the Contractor the opportunity to remedy any defect or to perform the processing again.

14.6. The Client may only invoke the warranty once it has satisfied all its obligations to the Contractor.

14.7. a. No warranty is given if the defects result from:
- normal wear and tear;
- improper use;
- lack of maintenance or improper maintenance;
- installation, fitting, modification or repair by the Client or third parties;
- defects in or unsuitability of goods originating from, or prescribed by, the Client;
- defects in or unsuitability of materials or auxiliary materials used by the Client.

b. No warranty is given in respect of:
- goods supplied that were not new at the time of del very;
- the inspection and repair of goods of the Client;
- parts for which a manufacturer's warranty has been provided.

14.8. The provisions of paragraphs 2 to 7 of this article apply mutatis mutandis to any claims by the Client based on breach of contract, non-conformity or on any other basis whatsoever.

14.9. The Client cannot assign any rights under this article.

Article 15: Obligation to complain

15.1. The Client can no longer invoke a defect in performance if it does not make a written complaint to the Contractor in respect thereof within fourteen days of the date it discovered, or should reasonably have discovered, the defect.

15.2. On pain of forfeiture of all rights, the Client must submit complaints regarding the amount invoiced to the Contractor in writing within the payment deadline. If the payment deadline is longer than thirty days, the Client must complain no later than thirty days after the date of the invoice.

Article 16: Failure to take delivery of goods

16.1. Upon expiry of the delivery period and/or performance period, the Client is obliged to take delivery of the good or goods forming the subject of the agreement.

16.2. The Client must lend all cooperation that can be reasonably expected from it to enable the Contractor to make the delivery.

16.3. If the Client does not take delivery of goods, such goods will be stored at the risk and expense of the Client.

16.4. Upon breach of the provisions in paragraphs 1 and/or 2 of this article, the Client will owe the Contractor a penalty of € 250 per day, to a maximum of € 25,000. This penalty may be claimed in addition to damages pursuant to the law.

Article 17: Payment

17.1. Payment will be made at the Contractor's place of establishment or to an account to be designated by the Contractor.

17.2. Unless agreed otherwise, payment will be made as follows:
a. in cash where sale is at the service desk;
b. in the case of payments in instalments:
- 40% of the total price upon assignment;
- 50% of the total price after supply of the material or, if delivery of the material is not included in the assignment, after commencement of the work;
- 10% of the total price upon completion;
c. in all other cases, within thirty days of the date of the invoice.

17.3. If the Client fails to comply with its payment obligation, instead of paying the sum of money agreed it will be obliged to comply with a request by the Contractor for payment in kind (inbetalinggeving).

17.4. The right of the Client to set off or suspend amounts it is owed by the Contractor, save in the event of the Contractor's bankruptcy or if statutory debt rescheduling applies to the Contractor.

17.5. Irrespective of whether the Contractor has fully executed the agreed performance, everything that is or will be owed to it by the Client under the agreement is immediately due and payable if:
a. a deadline for payment has been exceeded;
b. an application has been made for the Client's bankruptcy or suspension of payments;
c. attachment is levied on the Client's goods or claims;
d. the Client (a company) is dissolved or wound up.
e. the Client (a natural person) requests to be admitted to statutory debt rescheduling, is placed under guardianship or dies.

17.6 If payment is not made within the agreed payment deadline, the Client will immediately owe interest to the Contractor. The interest rate is 12% per annum, but is equal to the statutory interest rate if the latter rate is higher. When calculating interest, part of a month is regarded as a whole month.

17.7 The Contractor is authorised to set off its debts to the Client with amounts owed by the Client to companies affiliated with the Contractor. In addition, the Contractor is authorised to set off amounts owed to it by the Client with debts to the Client of companies affiliated with the Contractor. Further, the Contractor is authorised to set off its debts to the Client with amounts owed to the Contractor by companies affiliated with the Client. Affiliated companies are understood to mean the companies belonging to the same group, within the meaning of Article 2:24b Dutch Civil Code, and participating interests within the meaning of Article 2:24c Dutch Civil Code.

17.8 If payment is not made within the agreed payment deadline, the Client will owe the Contractor all extrajudicial costs, with a minimum of € 75. These costs will be calculated on the basis of the following table (principal sum plus interest):
on the first € 3,000 15%
on any additional amount up to € 6,000 10%
on any additional amount up to € 15,000 8%
on any additional amount up to € 60,000 5%
on any additional amount from € 60,000 3%
The extrajudicial costs actually incurred will be owed if these are higher than they would be according to the above calculation.

17.9 If judgment is rendered in favour of the Contractor in legal proceedings, all costs that it has incurred in relation to these proceedings will be borne by the Client.

Article 18: Security

18.1. Irrespective of the agreed payment conditions, upon the first demand of the Contractor the Client is obliged to provide such security for payment as the Contractor deems sufficient. If the Client does not comply with such demand within the period set, it will immediately be in default. In that event, the Contractor is entitled to terminate the agreement and to recover its damage from the Client.

18.2. The Contractor will retain ownership of any goods delivered as long as the Client:
a. fails or will fail in the performance of its obligations under this agreement or other agreements;
b. has not paid debts that have arisen due to non-performance of the aforementioned agreements, such as damage, penalties, interest and costs.

18.3. As long the goods delivered are subject to retention of title, the Client may not encumber or alienate the same other than in the ordinary course of its business.

18.4. Once the Contractor has invoked its retention of title, it may take possession of the goods delivered. The Client will lend its full cooperation to this end.

18.5. The Contractor has a right of pledge and a right of retention in respect of all goods that are or will be held by it for any reason whatsoever and for all claims it has or might acquire against the Client in respect of anyone seeking their surrender.

18.6. If, after the goods have been delivered to the Client by the Contractor in accordance with the agreement, the Client has met its obligations, the retention of title will be revived with regard to such goods if the Client does not meet its obligations under any agreement subsequently concluded.

Article 19: Termination of the Agreement

If the Client wishes to terminate the agreement without the Contractor being in default, and the Contractor agrees to this, the agreement will be terminated by mutual consent. In that case, the Contractor is entitled to compensation for all financial loss, such as loss suffered, loss of profit and costs incurred.

Article 20: Applicable law and competent court

20.1. Dutch law applies.

20.2. The Vienna Sales Convention (C.I.S.G.) does not apply, nor do any other international regulations the exclusion of which is permitted.

20.3. Disputes will be heard exclusively by the Dutch civil court with jurisdiction over the Contractor's place of establishment, unless this is contrary to mandatory law. The Contractor may deviate from this rule of jurisdiction and apply the statutory rules of jurisdiction.