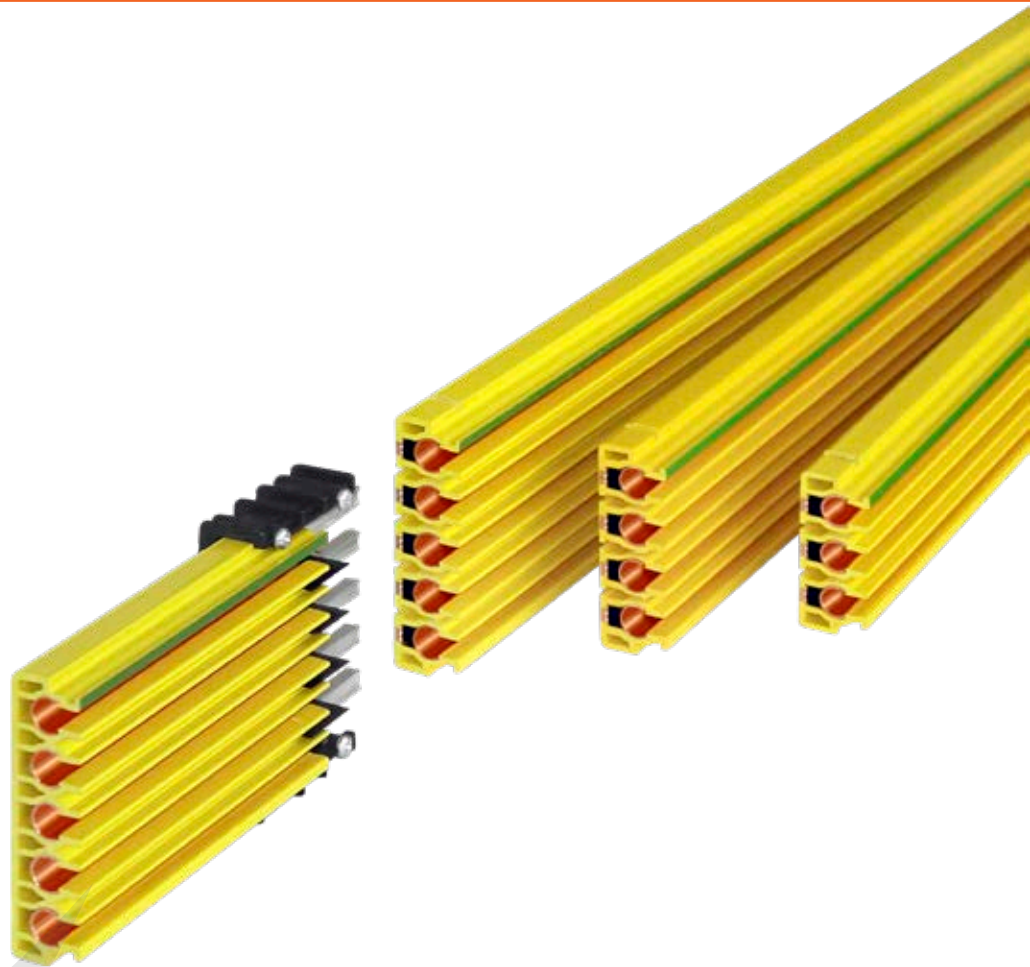


Multipole Conductor Rail

831 Series Multiline



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Description

Conductix-Wampfler Multipole Conductor Rail Program 0831

The Conductix-Wampfler multipole conductor rail program 0831 is protected against direct contact and designed as a flat profile. This system is recommended for high storage bays, cranes, transport trolleys and special machinery. The Conductix-Wampfler multipole conductor rail can be used for energy and data transmission on indoor and weather protected outdoor applications with straight track layouts.

- 3, 4 and 5-poles
- 10 - 125A (100% Duty cycle)
- protected against direct contact
- little space consumption
- installation vertical and horizontal
- quick installation due to connector plug-in system and universal steel clamp fasteners

CONDUCTOR RAILS

The conductor rail poles are enclosed in high-quality plastic profiles in 3, 4 and 5 pole type. There are different versions for a current load from 10 up to 125A nominal current. The phase spacing of the multipole profiles is 18 mm. With a combination of different multipole profiles every number of multipole conductor systems is possible.

The standard length is 4000 mm, shorter lengths are available. It is possible to combine different conductor rail types within the compact profiles. Datametal conductor rails will be used for a reliable data transmission. In special cases please ask for assistance.

SUPPORT / HANGER CLAMPS

The conductor rail segments have to be fastened at least at 2 points. The support distance is max. 1000 mm. The plastic hanger clamps can be mounted on customers supporting beams or runway profiles as well as on Conductix-Wampfler support arms. With universal steel clamp fasteners they can be mounted on the beam flanges. The multipole conductor rail will be snapped into the hanger clamps which are designed as sliding hanger clamps.

SUPPORT / ANCHOR CLAMPS

To control the expansion an anchor clamp will be installed, which holds the multipole conductor rail in position in the hanger clamp, due to an additional screw. The anchor clamp will preferably be located in the middle of an installation.

POWER FEED

Power feeds are available as end feed or in-line feed up to 35 mm² cross section, as well as flat centre feed up to 35 mm² cross section. In-line feeds can be installed at each rail joint. The power feeds are rail segments with a length of 1000 mm, except for the end feeds.

EXPANSION JOINTS

Expansion joints are used as expansion compensators in systems which are exceeding a total length of 200 m (see page 12/13).

In case you need expansion joints please ask for assistance.

RAIL CONNECTORS

The rail segments are connected with a special connector plug-in system. The rail connector is already included at the end of each rail segment.

PICK-UP GUIDES FOR TRANSFER POINTS

A reduced travel speed will increase the lifetime. A limit of max. 85 m/min is recommended.

INSTALLATION

For detailed information please refer to our installation instruction (MV0831-0006-E).

Current Collectors

The current collector unit with or without terminal box is installed on the mobile power consumer. It consists of fully insulated current collectors which are moveable in all directions. The earth collector is marked green/yellow and not interchangeable with a phase collector. Collector shoes can be checked without disassembling and can be replaced quick and easily. In special cases please ask for assistance.

	Current Collectors		Current Collector Units				
			with Terminal Box	single without Terminal Box		double with Terminal Box	
max. Current at 100% Duty Cycle [A]	55	80	55	55	80	68	110
Order No.	083102-... (page 14)	083106-... (page 15)	083103-... (page 19)	083103-... (page 17)	083107-... (page 18)	083104-... (page 21)	083104-... (page 20)
... also for Pick-up Guides	yes	yes	no	yes	yes	no	no
... for Transfer Points							

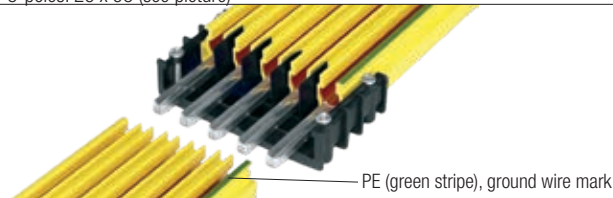
Technical Data

Conductix-Wampfler Multipole Conductor Rail Program 0831

Conductor Rail	Galvanized steel	Copper			Data-metal
Type	083112	083115	083116	083117	083118
Nominal Current at 100% duty cycle and 35°C [A]	32	60	100	125 ¹⁾	10
Cross Section of Conductor [mm ²]	25	16	25	35	25
Resistance at 35°C [Ω/m]	0.005506	0.001182	0.000745	0.000540	0.029313
Impedance at 18 mm rail spacing [Ω/m]	0.005507	0.001185	0.000750	0.000548	0.029314

1) 140 A at 80% duty cycle

Nominal Voltage [V]	500
Support Spacing max. [mm]	1000
Rail Length [mm]	Standard 4000; intermediate lengths 3000, 2000, 1000
External Dimensions [mm]	3-poles: 26 x 62 4-poles: 26 x 80 5-poles: 26 x 98 (see picture)



Speed max. [m/min]	600
Ambient Temperature max.	55°C
Ambient Temperature min.	6°C; (6 to -30° available upon request)

Relevante Normen	<p>VDE 0110-1:2008-01 Insulation coordination for electrical equipment in low voltage systems - Part 1: Principles, requirements and tests (IEC 60664-1:2007); German version EN 60664-1:2007</p> <p>DIN EN 60204-1; VDE 0113-1:2007-06 Machine Safety - Electrical Equipment of Machines - Part 1: General requirements (IEC 60204-1:2005, modified); German version EN 60204-1:2006</p> <p>DIN EN 60529; VDE 0470-1:2000-09 Systems of protection through housing (IP-Code) (IEC 60529:1989 + A1:1999); German version EN 60529:1991 A1:2000</p> <p>DIN EN 60243-2; VDE 0303-22:2001-10 Electrical puncture strength of insulating materials - Test procedures- Part 2: Additional requirements for testing with direct current (IEC 60243-2:2001); German version EN 60243-2:2001</p> <p>DIN IEC 60093; VDE 0303-30:1993-12 Testing procedures for electrical insulating materials; specific puncture strength and specific surface strength of fest, electrical insulating materials (IEC 60093:1980); German version HD 429 S1:1983</p> <p>DIN IEC 60167; VDE 0303-31:1993-12 Test procedures for electrical insulating materials, insulation resistance of firm insulating materials (IEC 60167:1964); German version HD 568 S1:1990</p> <p>DIN EN 60112; VDE 0303-11:2003-11 Procedure for the determination of the test number and of the index number of the spark checking of firm insulating materials (IEC 60112:2003); German version EN 60112:2003</p>
-------------------------	---

Air and Surface Creepage	depending on degree of pollution; surface creepage distance 30 mm to DIN VDE 0110 Part 1 + 2
---------------------------------	--

Protection Type	IP 23 with horizontal arrangement IP 21 with vertical arrangement
------------------------	--

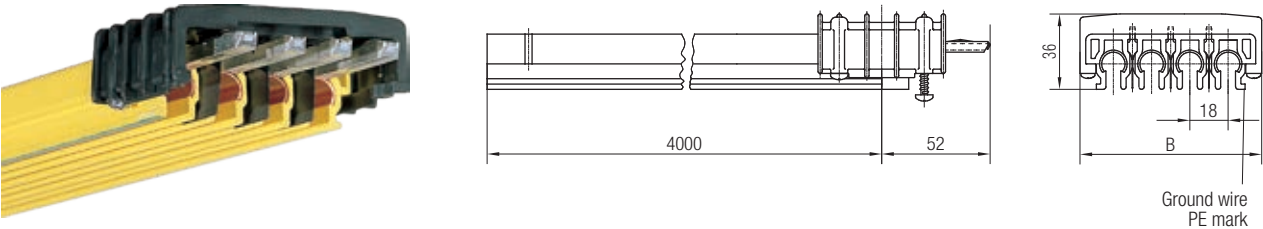
Chemical Resistance of the Profile at an Ambient Temperature of +45°C	Benzine	resistant	Sodium hydroxide 25%	resistant
	Mineral oil	resistant	Hydrochlorid acid	resistant
	Grease	resistant	Sulphuric acid up to 50%	resistant

The materials of the conductor rail systems are weather resistant and have got a high resistance against certain chemicals. For special applications please contact us.
Please be careful with solvents and contact sprays.

Note: Additional informations on request.

Conductor Rails

Rails complete with pre-mounted Connector (083112-... / 083115-.... / 083116-..., / 083117-... / 083118- ...)

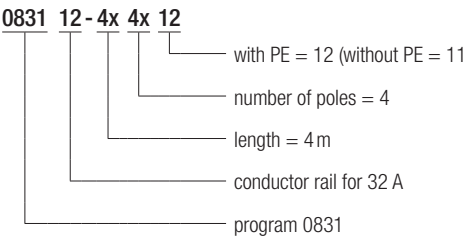


Technical details

- He table shows standard conductor rails.
- Intermediate lengths are available!

Multipole Conductor Rail	Power Supply with PE Order No.	Controls without PE Order No.	Poles	B [mm]	Weight [kg]
Galvanized Steel 32 A	083112-4x3x12	083112-4x3x11	3	72.5	6.280
	083112-4x4x12	083112-4x4x11	4	90.5	8.370
	083112-4x5x12	083112-4x5x11	5	108.5	10.460
Copper 60 A	083115-4x3x12	083115-4x3x11	3	72.5	5.600
	083115-4x4x12	083115-4x4x11	4	90.5	7.474
	083115-4x5x12	083115-4x5x11	5	108.5	9.348
Copper 100 A	083116-4x3x12	083116-4x3x11	3	72.5	6.590
	083116-4x4x12	083116-4x4x11	4	90.5	8.786
	083116-4x5x12	083116-4x5x11	5	108.5	10.982
Copper 125 A	083117-4x3x12	083117-4x3x11	3	72.5	7.520
	083117-4x4x12	083117-4x4x11	4	90.5	10.034
	083117-4x5x12	083117-4x5x11	5	108.5	12.540
Datametal 10 A	083118-4x3x12	083118-4x3x11	3	72.5	6.300
	083118-4x4x12	083118-4x4x11	4	90.5	8.402
	083118-4x5x12	083118-4x5x11	5	108.5	10.504

Order Example: Multipole conductor rail program 0831
 steel 32 A
 4-poles
 for power supply
 4 m long



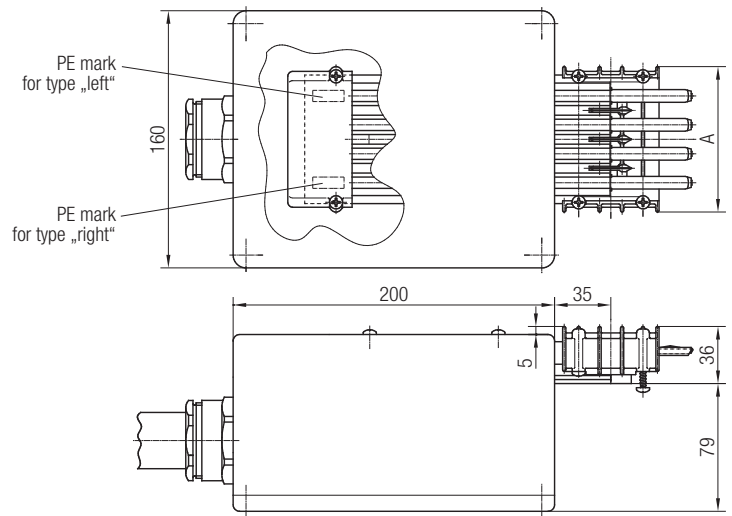
Power Feeds

End Feed complete with pre-mounted Connector and Terminal Box (083153-...)



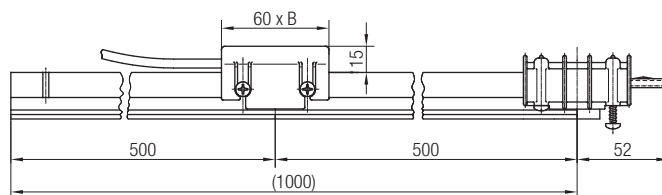
Technical details

- Connection cable max. 35 mm²
- Suitable for all types of multipole conductor rails
- Use cable lugs for threaded connection M8 (not included)



Power Supply with PE type "right" Order No.	Power Supply with PE type "left" Order No.	Controls without PE Order No.	Poles	Gland	A [mm]	Weight [kg]
083153-310x12	083153-310x13	083153-310x11	3	Pg 36	72.5	1.460
083153-311x12	083153-311x13	083153-311x11		Pg 29		1.430
083153-312x12	083153-312x13	083153-312x11		Pg 16		1.410
083153-410x12	083153-410x13	083153-410x11	4	Pg 36	90.5	1.985
083153-411x12	083153-411x13	083153-411x11		Pg 29		1.955
083153-412x12	083153-412x13	083153-412x11		Pg 16		1.935
083153-510x12	083153-510x13	083153-510x11	5	Pg 36	108.5	2.330
083153-511x12	083153-511x13	083153-511x11		Pg 29		2.300
083153-514x12	083153-514x13	083153-514x11		Pg 42		2.365

Line Feed complete with pre-mounted Connector (083151-...)



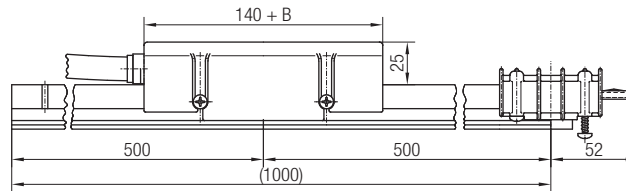
Technical details

- Connection cable max. 10 mm²
- Cable lugs (according to nominal current) are included
- connection screws M5

In-line Feed	Power Supply with PE Order No.	Controls without PE Order No.	Poles	B [mm]	Weight [kg]
for Steel Rail 32 A	083151-32x12	083151-32x11	3	72.5	1.800
	083151-42x12	083151-42x11	4	90.5	2.400
	083151-52x12	083151-52x11	5	108.5	3.000
for Copper Rail 60 A	083151-35x12	083151-35x11	3	72.5	1.630
	083151-45x12	083151-45x11	4	90.5	2.175
	083151-55x12	083151-55x11	5	108.5	2.720
for Datametal Rail 10 A	083151-38x12	083151-38x11	3	72.5	1.800
	083151-48x12	083151-48x11	4	90.5	2.400
	083151-58x12	083151-58x11	5	108.5	3.000

Power Feeds

Line Feed complete with pre-mounted Connector (083154-...)

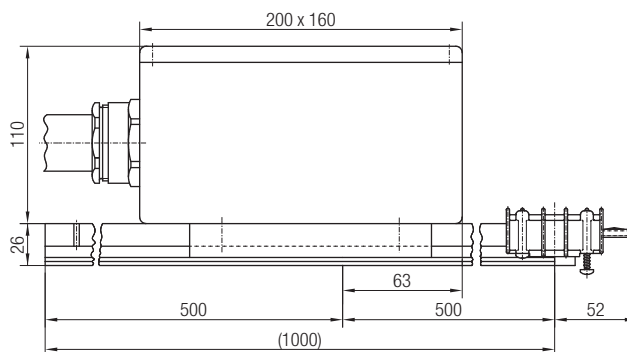


Technical details

- Connection cable max. 35 mm²
- Cable lugs (according to nominal current) are included
- connection screws M6

In-line feed	Power Supply with PE Order No.	Controls without PE Order No.	Poles	B [mm]	Weight [kg]
Steel Rail 32 A	083154-32x12	083154-32x11	3	72.5	1.925
	083154-42x12	083154-42x11	4	90.5	2.525
	083154-52x12	083154-52x11	5	108.5	3.120
Copper Rail 60 A	083154-35x12	083154-35x11	3	72.5	1.750
	083154-45x12	083154-45x11	4	90.5	2.300
	083154-55x12	083154-55x11	5	108.5	2.850
Copper Rail 100 A	083154-36x12	083154-36x11	3	72.5	2.010
	083154-46x12	083154-46x11	4	90.5	2.630
	083154-56x12	083154-56x11	5	108.5	3.250
Copper Rail 125 A	083154-37x12	083154-37x11	3	72.5	2.240
	083154-47x12	083154-47x11	4	90.5	2.940
	083154-57x12	083154-57x11	5	108.5	3.650

Line Feed complete with pre-mounted Connector and Terminal Box (083152-...)



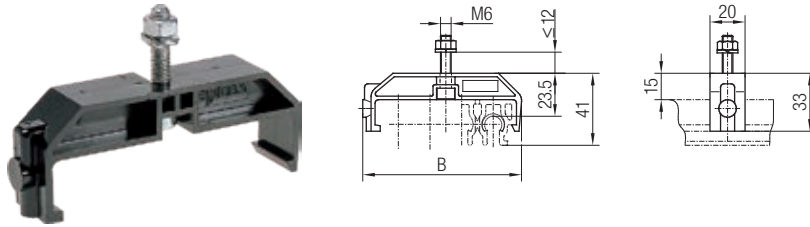
Technical details

- Connection cable max. 35 mm²
- Use cable lugs for threaded connection M8 (not included)

In-line feed	Power Supply with PE Order No.	Controls without PE Order No.	Poles	Gland	Weight [kg]
Steel Rail 32 A	083152-323x12	083152-323x11	3	Pg 21	3.000
	083152-421x12	083152-421x11	4	Pg 29	3.720
	083152-521x12	083152-521x11	5	Pg 29	4.600
Copper Rail 60 A	083152-353x12	083152-353x11	3	Pg 21	2.430
	083152-451x12	083152-451x11	4	Pg 29	3.190
	083152-551x12	083152-551x11	5	Pg 29	3.950
Copper Rail 100 A	083152-360x12	083152-360x11	3	Pg 36	2.680
	083152-460x12	083152-460x11	4	Pg 36	3.520
	083152-564x12	083152-564x11	5	Pg 42	4.350
Copper Rail 125 A	083152-370x12	083152-370x11	3	Pg 36	2.920
	083152-470x12	083152-470x11	4	Pg 36	3.830
	083152-574x12	083152-574x11	5	Pg 42	4.730

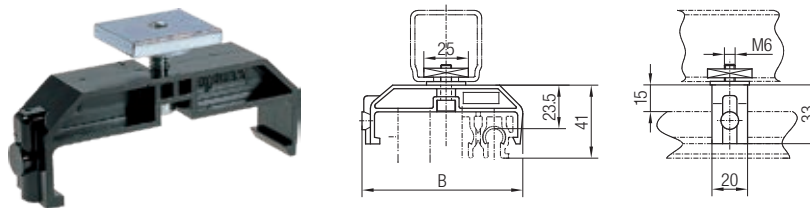
Hanger Clamps

For Conductor Rail Snap-in with Steel Nut (083143-...)



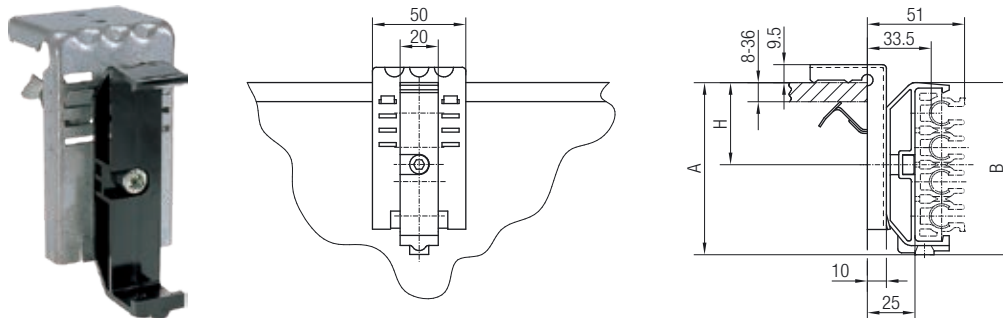
Order No.	Poles	max. Support Spacing [mm]	B [mm]	Weight [kg]
083143-3	3	1000	72.5	0.023
083143-4	4		90.5	0.025
083143-5	5		108.5	0.028

For Conductor Rail Snap-in for Support Arm Installation (083145-...)



Order No.	Poles	max. Support Spacing [mm]	B [mm]	Weight [kg]
083145-3	3	1000	72.5	0.053
083145-4	4		90.5	0.055
083145-5	5		108.5	0.058

With Universal Steel Clamp Fastener for Vertical Installation (083146-...)



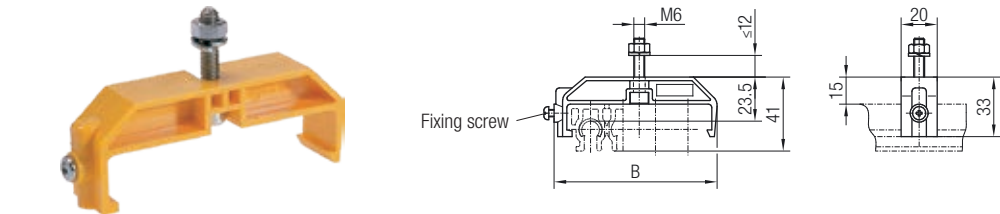
Technical details

- For system lengths of more than 10 m it is recommended to secure at least, every tenth hanger clamp with an additional screw (see installation instruction MV0831-0003).
- Universal steel clamp fastener, galvanized
- clamping range 8 to 36 mm

Order No.	Poles	max. Support Spacing [mm]	A [mm]	B [mm]	H [mm]	Weight [kg]
083146-3	3	1000	81.5	72.5	43	0.113
083146-4	4		90.5	90.5	43	0.115
083146-5	5		111.5	108.5	55	0.118

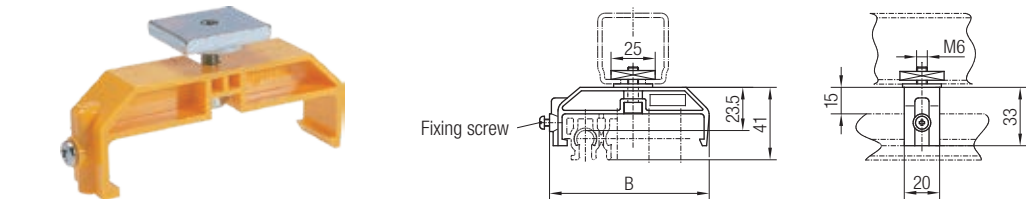
Anchor Clamps

For Conductor Rail Snap-in and Fixation with Steel Nut (083133-...)



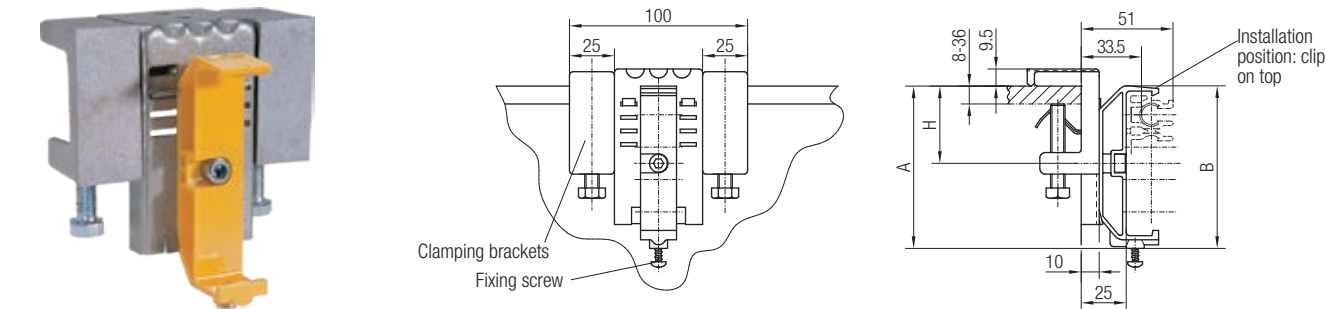
Order No.	Poles	B [mm]	Weight [kg]
083133-3	3	72.5	0.027
083133-4	4	90.5	0.030
083133-5	5	108.5	0.033

For Conductor Rail Snap-in and Fixation for Support Arm Installation (083135-...)



Order No.	Poles	B [mm]	Weight [kg]
083135-3	3	72.5	0.057
083135-4	4	90.5	0.060
083135-5	5	108.5	0.063

For Conductor Rail Snap-in and Fixation (083136-... / 083137-...)



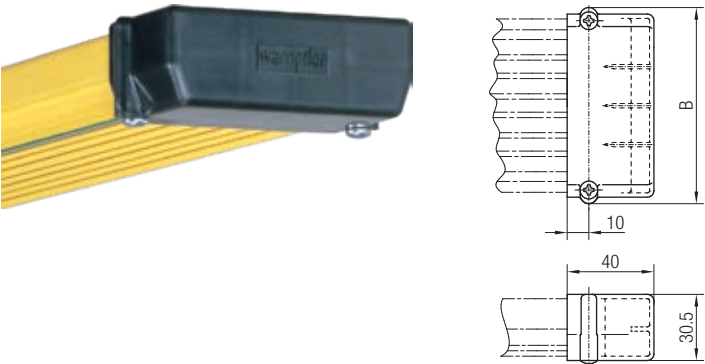
- Technical details**
- The anchor clamp 083137-... is identical with 083136-..., but without clamping brackets
 - The plastic parts are coloured in orange!

Anchor Clamp	Order No.	Poles	A [mm]	B [mm]	H [mm]	Weight [kg]
for support arm installation	083136-3	3	81.5	72.5	72.5	0.337
	083136-4	4	90.5	90.5	90.5	0.340
	083136-5	5	111.5	108.5	108.5	0.343
with universal clamp fastener1) for systems up to 60 m length	083137-3	3	81.5	72.5	72.5	0.117
	083137-4	4	90.5	90.5	90.5	0.120
	083137-5	5	111.5	108.5	108.5	0.123

1) Universal steel clamp fastener; galvanized; clamping range 8 to 36 mm

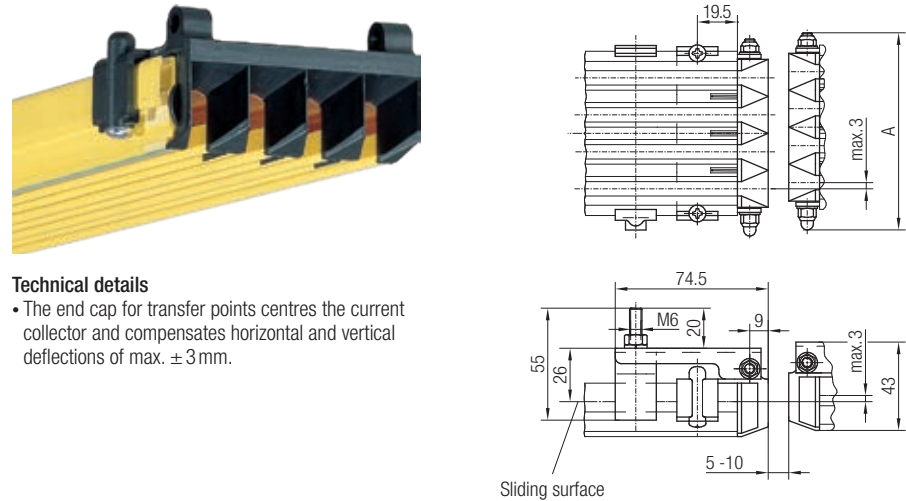
End Caps

For System Ends (083171-...)



Order No.	Poles	B [mm]	Weight [kg]
083171-3	3	72.5	0.040
083171-4	4	90.5	0.045
083171-5	5	108.5	0.050

For Transfer Points (083172-...)



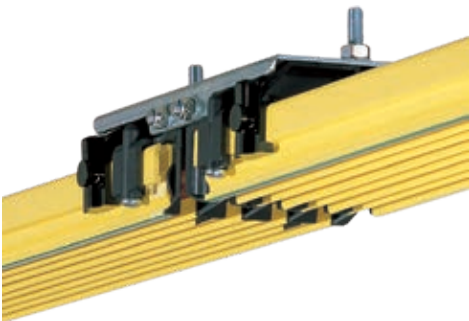
Technical details

- The end cap for transfer points centres the current collector and compensates horizontal and vertical deflections of max. ± 3 mm.

Order No.	Poles	B [mm]	Weight [kg]
083172-3	3	77	0.160
083172-4	4	95	0.200
083172-5	5	113	0.240

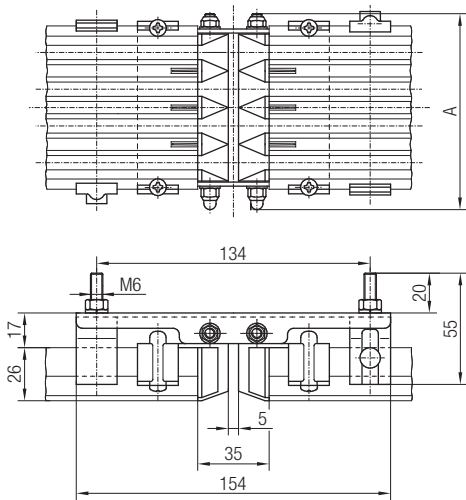
Air Gap Insulating Sections Pick-up Guides

Air Gap Insulating Sections (083195-...)



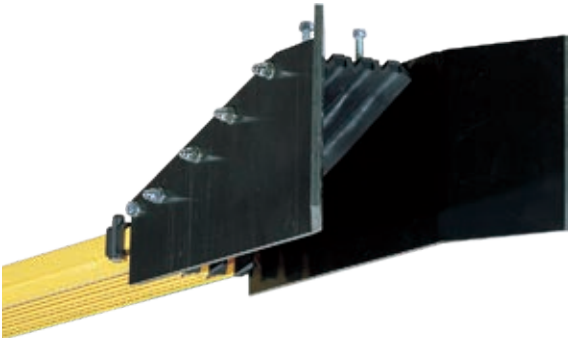
Technical details

- Not usable in combination with current collector 083102



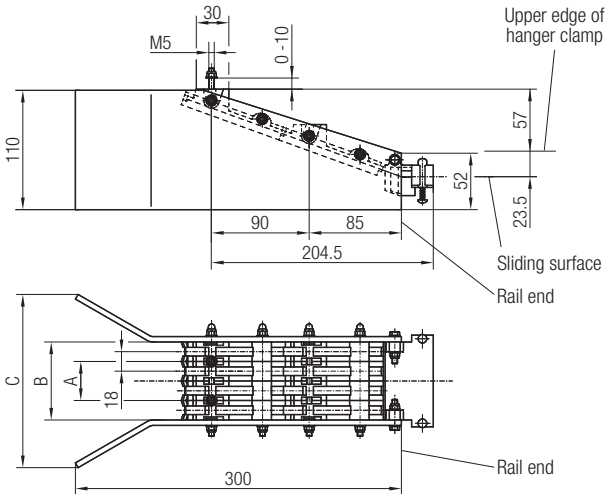
Order No.	Poles	A [mm]	Weight [kg]
083195-3	3	77	0.342
083195-4	4	95	0.418
083195-5	5	113	0.494

Pick-up Guides for Transfer Points (083181-....)



Technical details

- Use pick-up guides only with "pick-up guide current collector".
- The pick-up guide compensates vertical or horizontal misalignments up to ± 15 mm. Assembly tolerances below ± 3 mm are recommended.



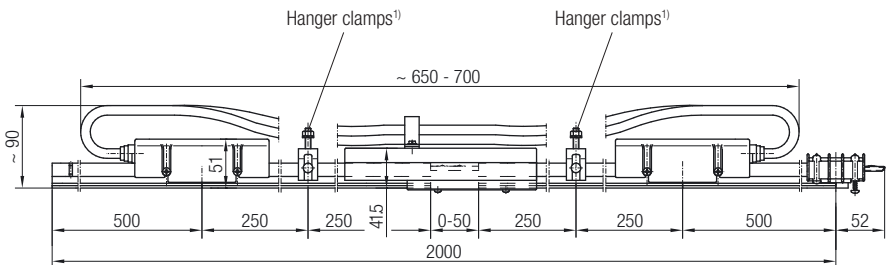
Order No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
083181-3x25	3	18	54	142	0.160
083181-4x25	4	36	72	160	0.200
083181-5x25	5	54	90	178	0.240

Expansion Element

Complete with pre-mounted Connector (083161-...)



Note
Copper-Expansion Element can be used for all copper and steel conductor rails up to 125 A



1) Hanger clamps to be ordered separately! Connecting cables have to be installed flexible.

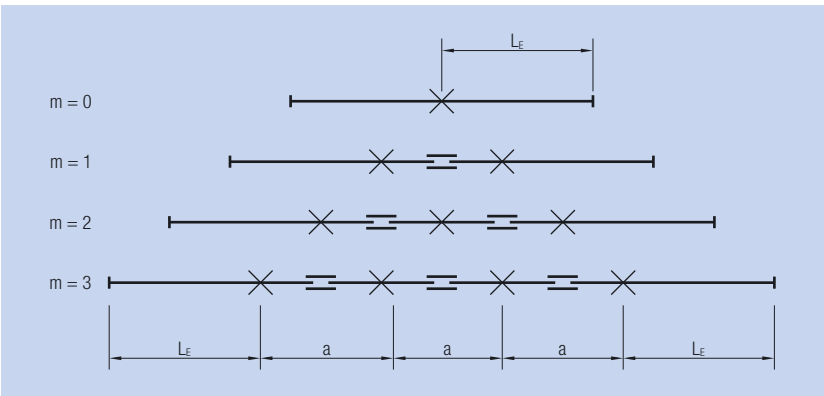
Expansion Elements with PE Order No.	without PE Order No.	Poles	Material	Weight [kg]
083161-2x6372	083161-2x6371	3	Copper	5.610
083161-2x6472	083161-2x6471	4		7.480
083161-2x6572	083161-2x6571	5		9.350
083161-2x2382	083161-2x2381	3	Datametal	2.810
083161-2x2482	083161-2x2481	4		3.720
083161-2x2582	083161-2x2581	5		4.680

See hints page 12 (dimensioning / quantity).

How to select Expansion Elements

Expansion elements are installed in systems exceeding a total system length of 200 m as shown below, if the ambient temperature variation (ΔT) is more than 20°C during operation. Expansion joints are not required if the total system length is shorter than 200 m or if the ambient temperature variation (ΔT) is below 20°C during operation. An anchor clamp in the middle of the system halves the expansion travel and eases positioning of the hanger clamps. Pay attention to the distance between the hanger clamps and the rail connectors (System sketch, page 23).

Determination of System Length L:



System length L:
 $L = 2 \cdot L_E + m \cdot a$

Number of expansion elements:

$$m = \frac{L - 200}{a} \text{ (rounded)}$$

m = number of system part lengths with one expansion element

—X— Anchor clamp
—=— Expansion element

Expansion Element

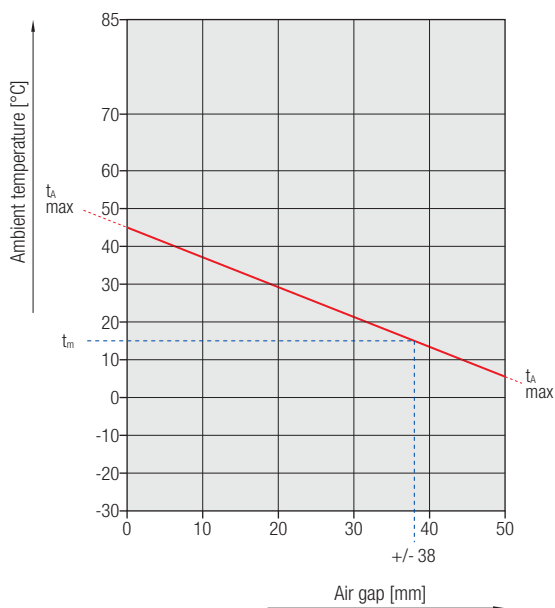
Determination Quantity of Expansion Elements

ΔT [°C]	a [m] ¹⁾	System length [m]							
		220	240	260	280	300	320	340	360
65	11	2	4	6	8	10	11	13	15
60	12	2	4	5	7	9	10	12	14
55	14	2	3	5	6	8	9	10	12
50	15	2	3	4	6	7	8	10	11
45	17	2	3	4	5	6	8	9	10
40	20	1	2	3	4	5	6	7	8
35	24	1	2	3	4	5	5	6	7
30	31	1	2	2	3	4	4	5	6
25	40	1	1	2	2	3	3	4	4
20	60	1	1	1	2	2	2	3	3

1) number of needed expansion elements

Diagram to set the Air Gap of Expansion Elements

Air gap to be set 0 - 50 mm during system installation.



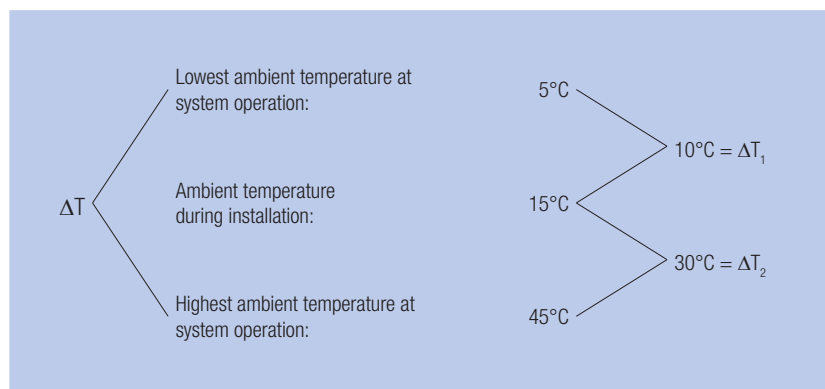
How to use the diagram (Example below):

1. Draw a connection line from min. to max. ambient temperature t_A (e.g. 5°C to 45°C).
2. Mark the ambient temperature during installation t_m (horizontal dotted line).
3. Draw a line from the intersection vertically down and read the air gap to adjust.

Technical details

- Highest ambient temp.: 55°C
- Lowest ambient temp.: 0 to -18°C; depends on the type of conductor rail. Special designs for deeper temperatures on request.

Example



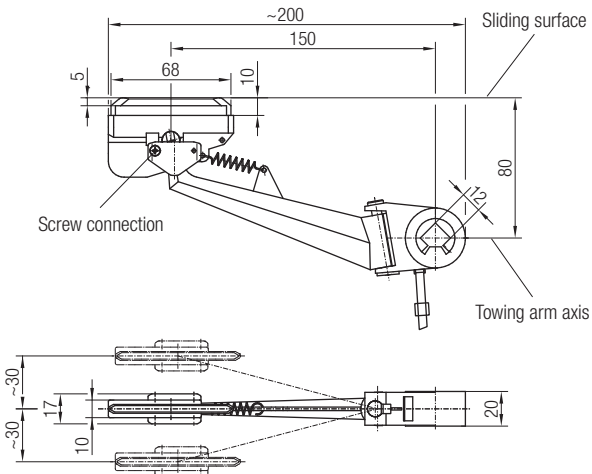
Air gap read from diagram: ~38 mm

Air gap calculated:

$$s = 50 \frac{\Delta T_2}{\Delta T_1 + \Delta T_2} = 38 \text{ mm}$$

Current Collectors with Accessories

Current Collectors (083102-...)



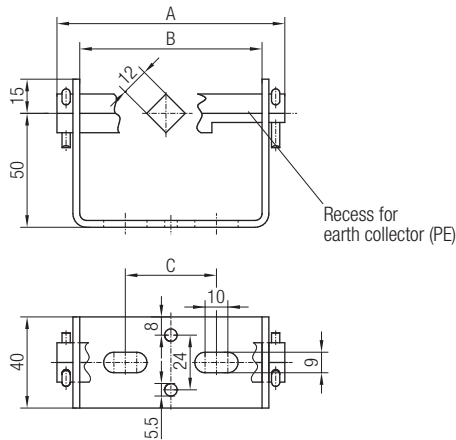
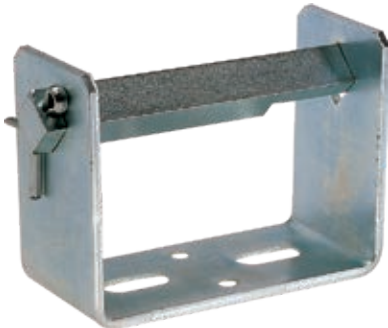
Technical details

- Collector shoe material: copper graphite
- Max. wearing height: 5 mm
- Contact pressure: 5 N
- Deflection (horizontal/vertical): ± 30 mm
- Assembly tolerances below ± 10 mm recommended
- Connection cables (highly flexible) to be ordered separately (see page 15)
- The current collectors are not for use with program 0811!
- Do not use in combination with air gap insulation 083195 and transfer points 083172

Type	with Phase (PH) Order No.	with Earth (PE) Order No.	I max. ¹⁾ [A]	Weight [kg]
Current Collector	083102-0021	083102-0022	55	0.120
Current Collector for Transfer Points	083102-3021	083102-3022	55	0.125

1) Depending on cross section of connection cable; limit 55 A

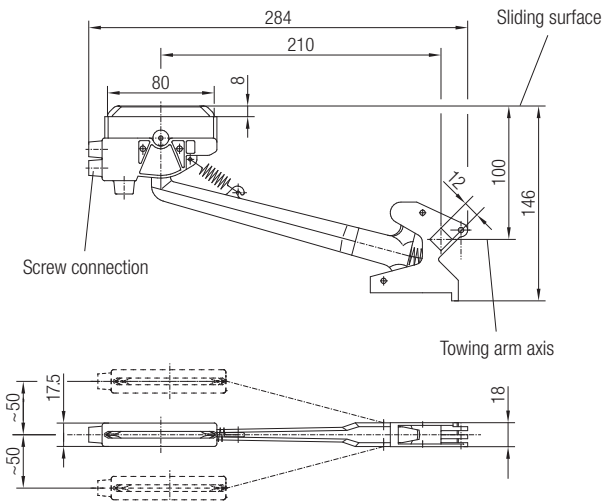
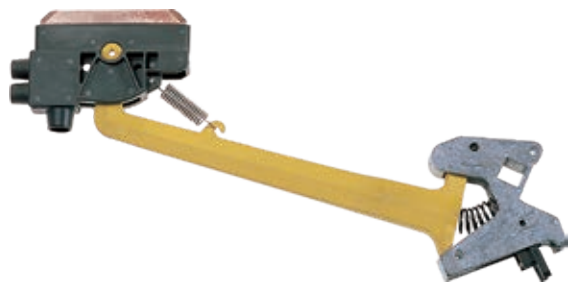
Collector Support Brackets 081050-.... (for current collector 083102-...)



Order No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
081050-20x3	3	80	60	30	0.300
081050-20x4	4	100	80	40	0.370
081050-20x5	5	120	100	50	0.440

Current Collectors and Accessories

Current Collectors 083106-...

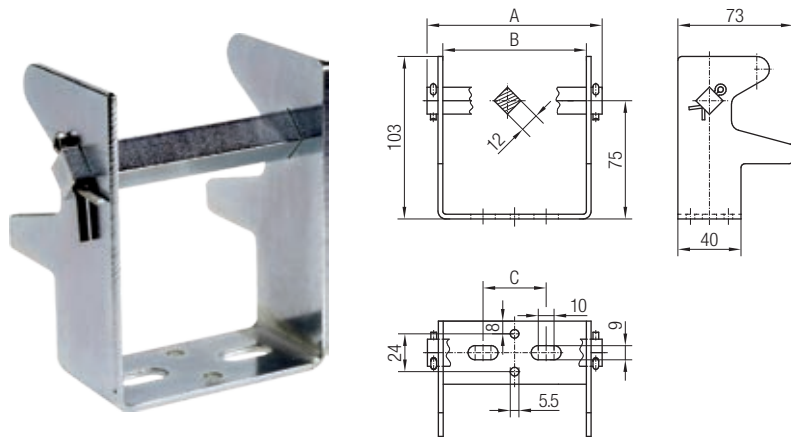


- Technical details**
- Collector shoe material: copper graphite
 - Max. wearing height: 8 mm
 - Contact pressure: 10 N
 - Deflection (horizontal/vertical): ± 50 mm
 - Assembly tolerances below ± 10 mm recommended
 - Connection cables (highly flexible) to be ordered separately (see page 15)
 - The current collectors can also be used for transfer points

Expansion Joints with Phase (PH) Order No.	Earth (PE) Order No.	I max. ¹⁾ [A]	Weight [kg]
083106-0021	083106-0022	80	0.270

1) Depending on cross section of connection cable; limit 80 A.

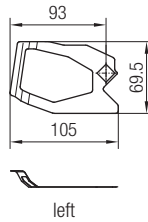
Collector Support Brackets 083050-... (for current collector 083106-...)



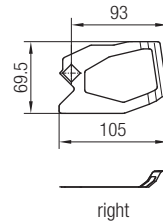
Order No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
083050-18x3	3	74	55.0	30	0.300
083050-18x4	4	92	73.0	40	0.370
083050-18x5	5	110	91.5	50	0.440

Current Collectors and Accessories

Support Spring Plates 08-F030-...



left



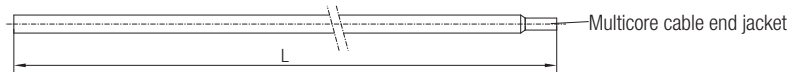
right

Technical details

- Position and type see current collector unit 083107-...
- For horizontal operation of the current collector unit
- Use only with collector support bracket 083050-..

Order No.	Support Spring Plate	Weight [kg]
08-F030-0082	left	0.013
08-F030-0079	right	

Connection Cable with Multicore Cable End Jacket 081109-...



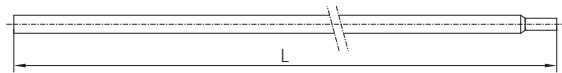
Cross Section [mm²]	Connection Cable with Phase (PH) Order No.	Earth (PE) Order No.	Length ¹⁾ [m]	Weight [kg/m]	Cable Diameter [mm]	I at 100% Duty Cycle [A]	Use for
1.5	081109-1x1.5x11	081109-1x1.5x32	1	0.014	4	24	083102-... 083103-... 083104-... 083106-... 083107-...
2.5	081109-1x2.5x11	081109-1x2.5x32	1	0.023	4	34	
4	081109-1x4 x11	081109-1x4 x32	1	0.037	5	42	
6	081109-1x6 x11	081109-1x6 x32	1	0.056	8	54	
1.5	081109-2x1.5x11	081109-2x1.5x32	2	0.014	4	24	
2.5	081109-2x2.5x11	081109-2x2.5x32	2	0.023	4	34	
4	081109-2x4 x11	081109-2x4 x32	2	0.037	5	42	
6	081109-2x6 x11	081109-2x6 x32	2	0.056	6	54	

1) Intermediate lengths are available

Please note:

The connection cable is highly flexible and double insulated and must be ordered in the required length and size. Amperage for single-core cables installed free in air according to DIN VDE 57 100 part 523.

Connection Cable 081109-..., 081209-...



Cross Section [mm²]	Connection Cable with Phase (PH) Order No.	Earth (PE) Order No.	Length ¹⁾ [m]	Weight [kg/m]	Cable Diameter [mm]	I at 100% Duty Cycle [A]	Use for
10	081109-1x10 x91	081109-1x10 x92	1	0.098	7	73	083106-... 083107-...
16	081209-1x16 x81	081209-1x16 x82	1	0.156	10	98	
10	081109-2x10 x91*	081109-2x10 x92	2	0.098	7	73	
16	081209-2x16 x81*	081209-2x16 x82	2	0.156	10	98	

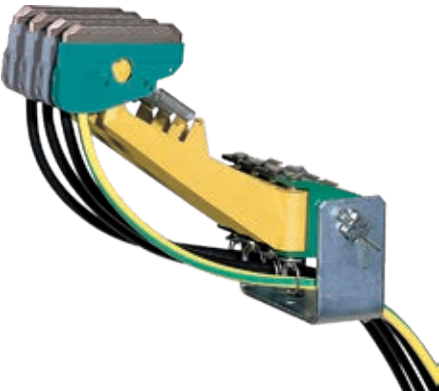
1) Intermediate lengths are available

Please note:

The connection cable is highly flexible and double insulated and must be ordered in the required length and size. Amperage for single-core cables installed free in air according to DIN VDE 57 100 part 523.

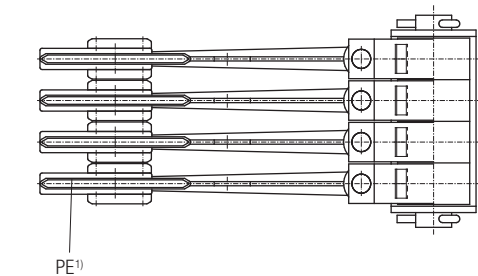
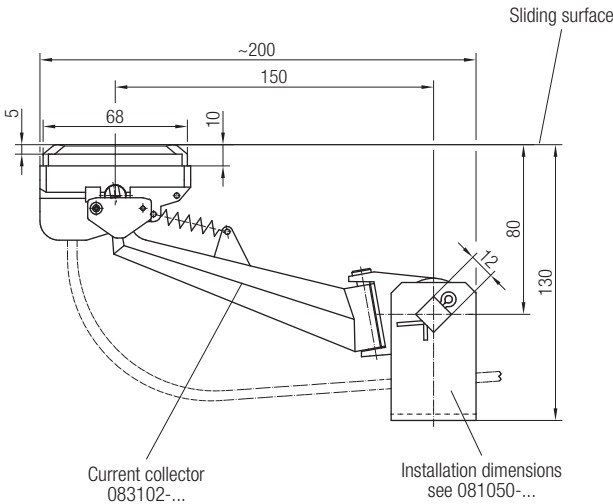
Current Collector Units

Current Collector Units without Terminal Boxes 083103-...



Technical details

- Shown is the version for „pick-up guides for transfer points“
- Collector shoe material: copper graphit
- Contact pressure per collector arm: 5 N
- Max. current load:
55 A with 6 mm² connection cable at 100% duty cycle
34 A with 2.5 mm² connection cable at 100% duty cycle
- Deflection (horizontal/vertical): ±30 mm
- Assembly tolerances below ±10 mm recommended
- **Connection cables (highly fl exible) to be ordered separately (see page 15)**
- **The current collector units are not for use with program 0811!**
- **Other connection cable cross sections on request**
- To arrange above as double-current-collectors separate order no. for the complementary units are required due to PE-orientation. Please contact sales dpt.

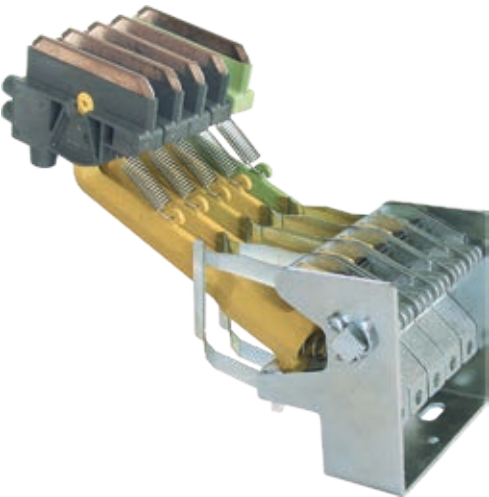


1) Position of earth collectors for version „with PE“

Current Collector Unit	Standard Order No.	for Transfer Points Order No.	Poles	Weight [kg]
for power supply; with PE; connection cable 6 mm², 1 m long	083103-030023	083103-033023	3	0.690
	083103-040023	083103-043023	4	0.890
	083103-050023	083103-053023	5	1.090
for controls; without PE; connection cable 2.5 mm², 1 m long	083103-030021	083103-033021	3	0.690
	083103-040021	083103-043021	4	0.890
	083103-050021	083103-053021	5	1.090

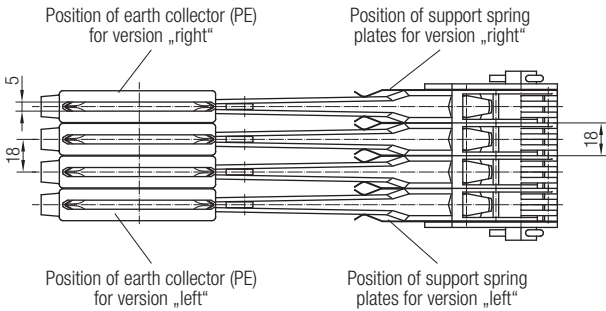
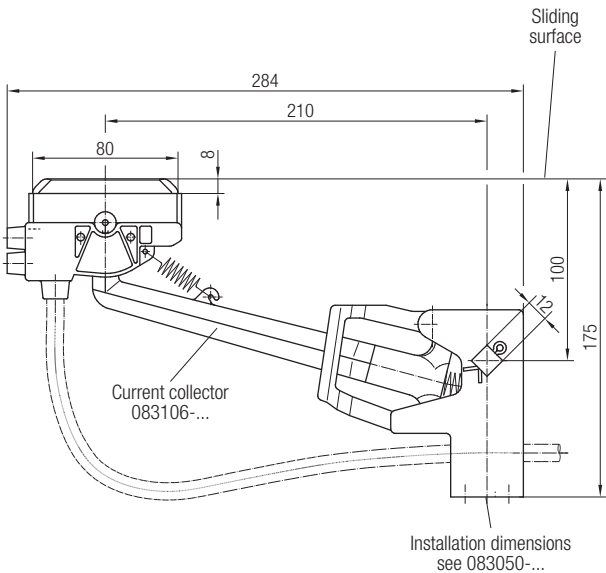
Current collector Units

Current Collector Units without Terminal Boxes 083107-...



Technical details

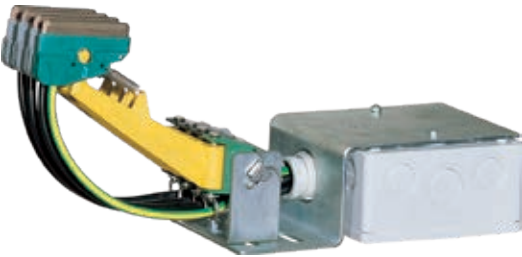
- Shown is the version for horizontal operation
- Collector shoe material: copper graphit
- Contact pressure per collector arm: 10 N
- Max. current load: 80 A with 16 mm² connection cable at 100% duty cycle
- Deflection (horizontal/vertical): ± 50 mm
- Assembly tolerances below ± 10 mm recommended
- **Connection cables (highly flexible) to be ordered separately (see page 15)**
- **The current collector units can also be used for „pick-up guides for transfer points“**
- **Other connection cable cross sections on request**
- To arrange above as double-current-collectors separate order no. for the complementary units are required due to PE-orientation. Please contact sales dpt.



Current Collector Unit	without PE Order No.	with PE Order No.	Poles	Weight [kg]
for vertical operation	083107-030023	083107-030021	3	0.860
	083107-040023	083107-040021	4	1.410
	083107-050023	083107-050021	5	1.960
for horizontal operation with support spring plates “right”	083107-036023	083107-036021	3	0.890
	083107-046023	083107-046021	4	1.440
	083107-056023	083107-056021	5	1.990
for horizontal operation with support spring plates “left”	083107-037023	083107-037021	3	0.890
	083107-047023	083107-047021	4	1.440
	083107-057023	083107-057021	5	1.990

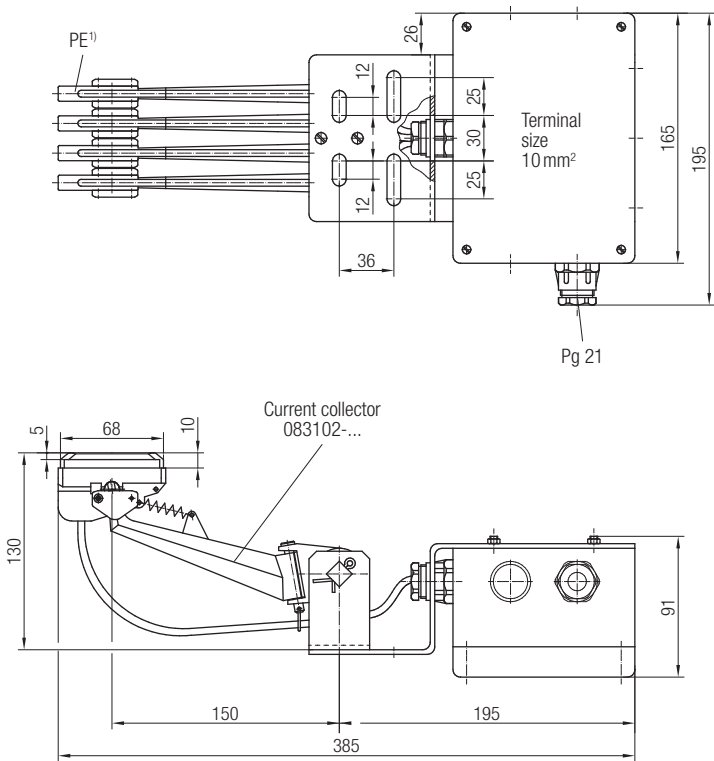
Current Collector Units

Current Collector Units with Terminal Boxes 083103-...



Technical details

- Collector shoe material: copper graphit
- Contact pressure per collector arm: 5 N
- Max. current load:
55 A with 6 mm² connection cable at 100% duty cycle
34 A with 2.5 mm² connection cable at 100% duty cycle
- Deflection (horizontal/vertical): ± 30 mm
- Assembly tolerances below ± 10 mm recommended

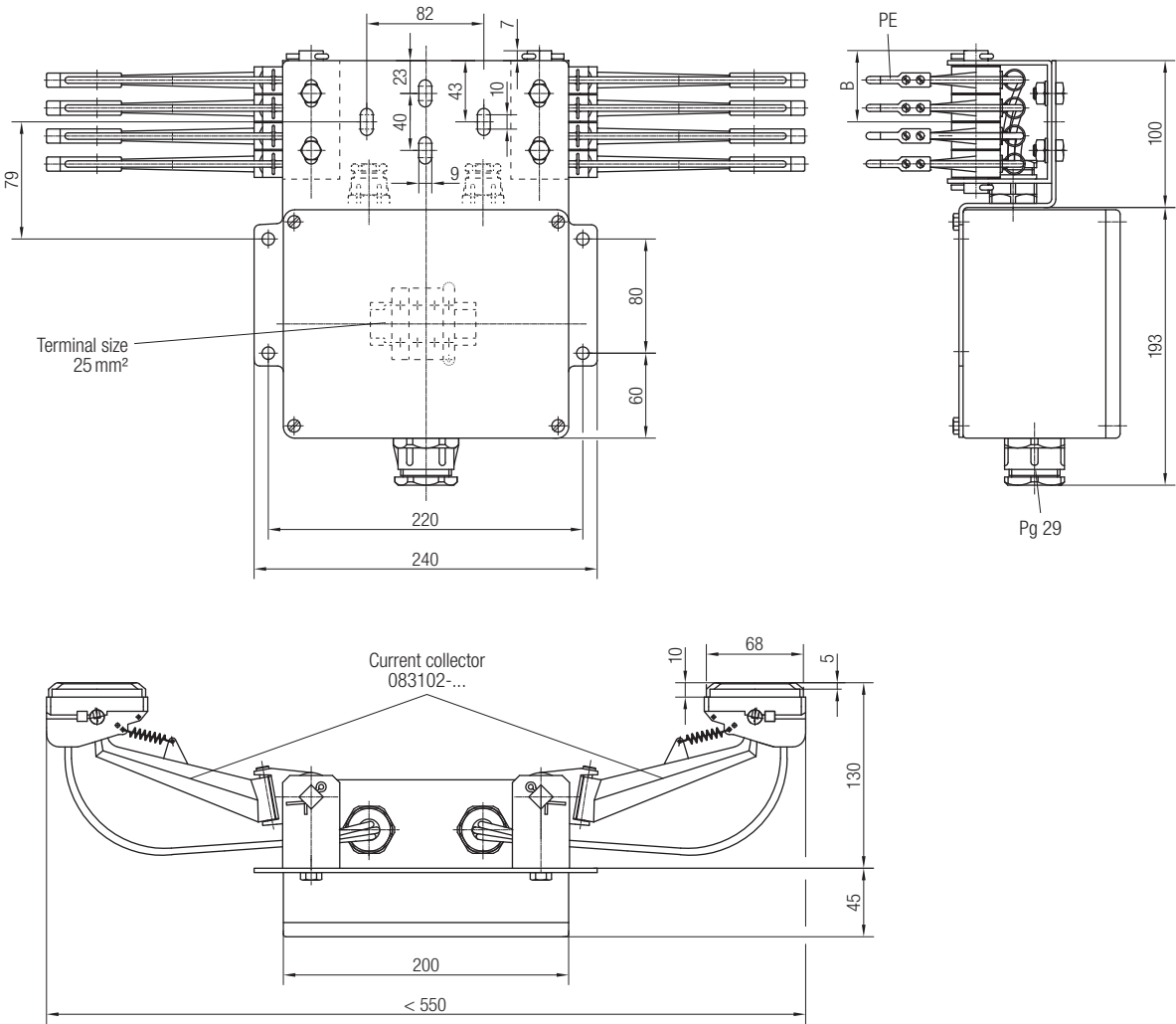


1) Position of earth collector for version „with PE“.

Current Collector Unit	without PE Order No.	with PE Order No.	Poles	Weight [kg]
for power supply; connection cable 6 mm²	083103-130023	083103-130024	3	2.010
	083103-140023	083103-140024	4	2.130
	083103-150023	083103-150024	5	2.250
for controls; connection cable 2.5 mm²	-	083103-130021	3	2.010
	-	083103-140021	4	2.130
	-	083103-150021	5	2.250

Current Collector Units

Double Current Collector Units for Power Supply; with Terminal Boxes 083104-...



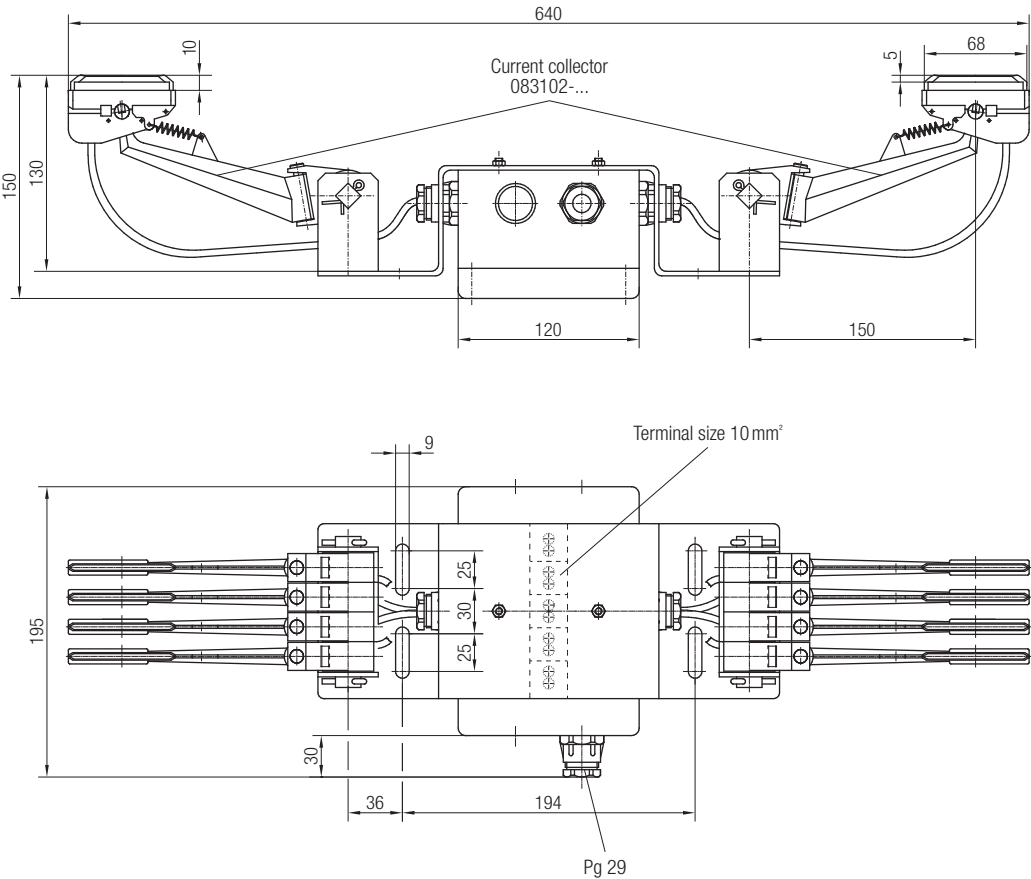
Technical details

- Collector shoe material: copper graphit
- Contact pressure per collector arm: 5 N
- Deflection (horizontal/vertical): ± 30 mm
- Assembly tolerances below ± 10 mm recommended
- Max. current load:
110 A (2 x 55 A) with 6 mm² connection cable at 100% duty cycle
34 A with 2.5 mm² connection cable at 100% duty cycle

Double Current Collector Unit	Order No.	Poles	B [mm]	Weight [kg]
for power supply with PE; connection cable 6 mm²	083104-130023	3	40	4.130
	083104-140023	4	50	4.245
	083104-150023	5	60	4.370

Current Collector Units

Double Current Collector Units for Control; with Terminal Boxes (083104-...)



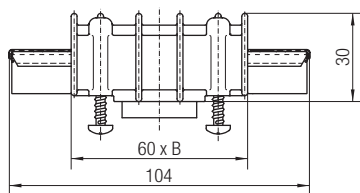
Technical details

- Collector shoe material: copper graphit
- Contact pressure per collector arm: 5 N
- Deflection (horizontal/vertical): ± 30 mm
- Assembly tolerances below ± 10 mm recommended
- Max. current load: 68 A (2 x 34 A) with 2.5 mm² connection cable at 100% duty cycle
- The current collector units are not for use with program 0811!
- Do not use in combination with air gap insulation 083195 and transfer points 083172

Double Current Collector Unit	Order No.	Poles	Weight [kg]
for control without PE; connection cable 2.5 mm ²	083104-130021	3	4.040
	083104-140021	4	4.155
	083104-150021	5	4.270

Wearing and Spare Parts

Rail Connectors (083121-...)

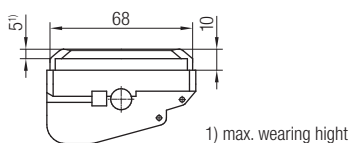


Technical details

- The rail connector is enclosed in the delivery of the rail segments but can be ordered separately.

Steel and Datametal Rail Order No.	Copper Rail Order No.	Poles	B [mm]	Weight [kg]
083121-32	083121-36	3	72.5	0.120
083121-42	083121-46	4	90.5	0.150
083121-52	083121-56	5	108.5	0.180

Collector Shoes 55A (083002-...)



Technical details

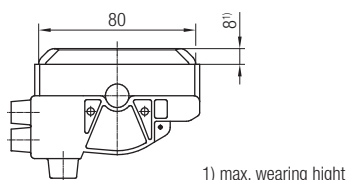
- Not interchangeable with collector shoes program 0811

Note:

In plants with transfer points 1 set of spacer pieces with screws Art. No. 08-D002-0592 is to be planned per collector shoe.

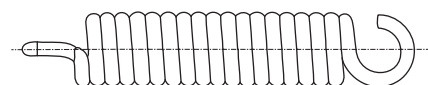
Collector Shoes with Phase (PH) Order No.	with Earth (PE) Order No.	Material	Colours	I [A]	for Current Collectors and Current Collector Untis	Weight [kg]
083002-1x4	083002-2x4	Copper-Graphite	PH: grey	55	083102-... / 083103-... 083104-...	0.045
083002-1x5	083002-2x5	Silver-Graphite	PE: turquoise-green	10		0.050

Collector Shoes 80A (081001-...)



Collector Shoes with Phase (PH) Order No.	with Earth (PE) Order No.	Colours	I [A]	for Current Collectors and Current Collector Untis	Weight [kg]
081001-12	081001-22	PH: black; PE: green	80	083106-... / 083107-...	0.090

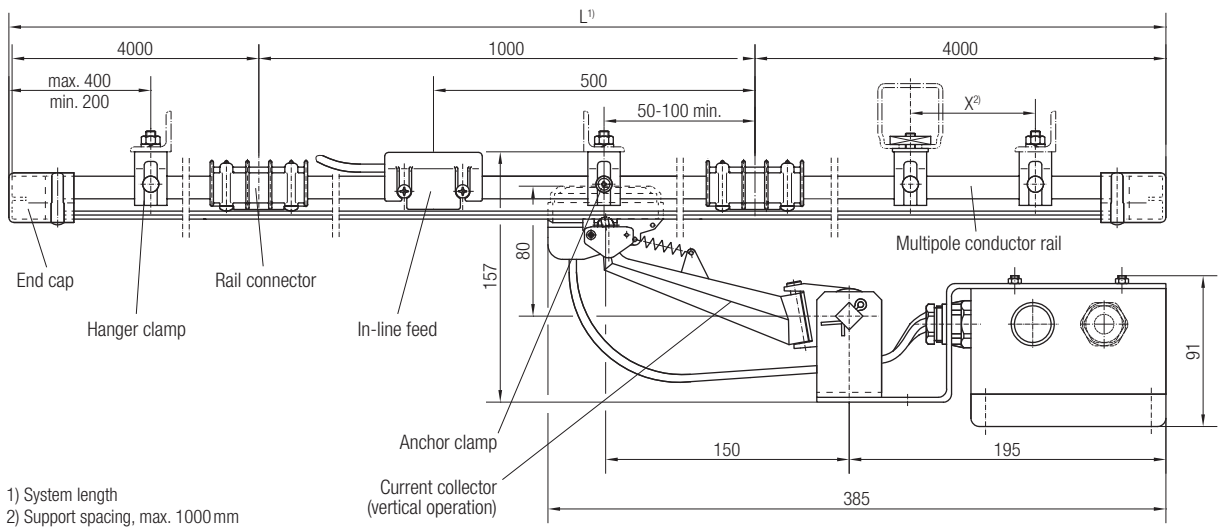
Stabilizing Springs for Current Collector Head (RZ-...)



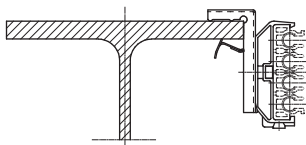
Order No.	for Current Collector	Carbon Length [mm]
08-RZ-056I	083102-... / 083103-... / 083104-...	68
08-RZ-081GI	083106-... / 083107-...	80

Arrangement Examples

System Sketch

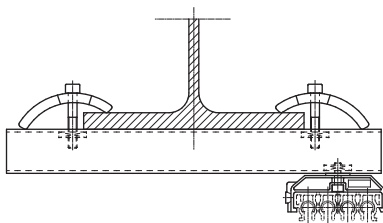


Multipole Conductor Rail Vertical Arrangements



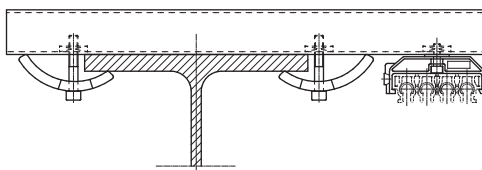
Installation with universal steel clamp fastener (clamping range 8 to 36 mm).

Multipole Conductor Rail Horizontal Arrangements



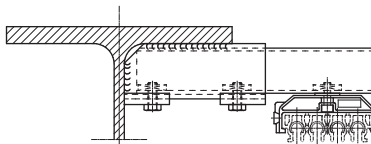
Mounting on support arms with hanger clamps for support arm installation.

Multipole Conductor Rail Horizontal Arrangements



Mounting on support arms with hanger clamps for support arm installation.





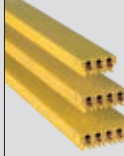
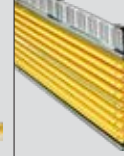

Multipole Conductor Rail Horizontal Arrangements



Mounting on support arms with weld-on brackets with hanger clamps for support arm installation

Program Overview

Conductor Rails

System Designs		Single Pole Insulated Conductor Rail				Multipole Conductor Rail		Enclosed Conductor Rail
Conductor Rail System		Progr. 0811	Progr. 0815	Progr. 0812	Progr. 0813	Progr. 0831	Progr. 0832	Progr. 0842
								
Nominal Current ¹⁾	[A]	10-100	100	25-400	200-1250	10-125 ³⁾	25-200 ⁴⁾	35-140 ⁵⁾
Voltage Grade	[V]	500	500	690	690	500	690	600
Support Spacing	[m]	0.4-1.0	0.5	1.5	2.5	1	3,2	2
Rail Length ²⁾	[mm]	4000	4000	4000	5000	4000	4000	4000
Outside-Dimensions	[mm]	14.7 x 15.5	9.6 x 15.2	18 x 26	32 x 42	3-pol.: 26 x 62 4-pol.: 26 x 80 5-pol.: 26 x 98	4-pol.: 200 x 50	5-pol.: 56 x 90 7-pol.: 56 x 90

1) At 100% duty cycle and 35°C; 2) Standard; 3) 140 A at 80% duty cycle; 4) 200 A at 80% duty cycle; 5) 160 A at 80% duty cycle

General Hints

We reserve the right to carry out any modification of the product at any time in the course of technical progress without prior notice.

All our equipment is in accordance with CE.

Our general terms of business are effective. We shall send them to you on request.

Reprint, even of extracts, is only permitted with our approval.

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The products described in this catalog represent a few of the products from the broad spectrum of Conductix-Wampfler components and systems for the transfer of energy, data, gases, and fluids. The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler products are needed to fill the application. You can count on all of Conductix-Wampfler's business units for hands-on engineering support - coupled with the perfect solution to meet your energy management and control needs.



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Motor driven reels by Conductix-Wampfler are the perfect solution for managing long lengths of heavy cable and hoses in very demanding industrial applications. Monospiral, level wind, and random wind spools.



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Whenever powered machinery needs to rotate 360°, field proven slip ring assemblies by Conductix-Wampfler can flawlessly transfer energy and data. Here, everything revolves around flexibility and reliability.



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Whether they are enclosed conductor rails, expandable single-pole bar systems, or high amperage bar for demanding steel mill use up to 6000 amps. Conductix-Wampfler's conductor bar is the proven solution to reliably move people and material.



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The contact-less system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.



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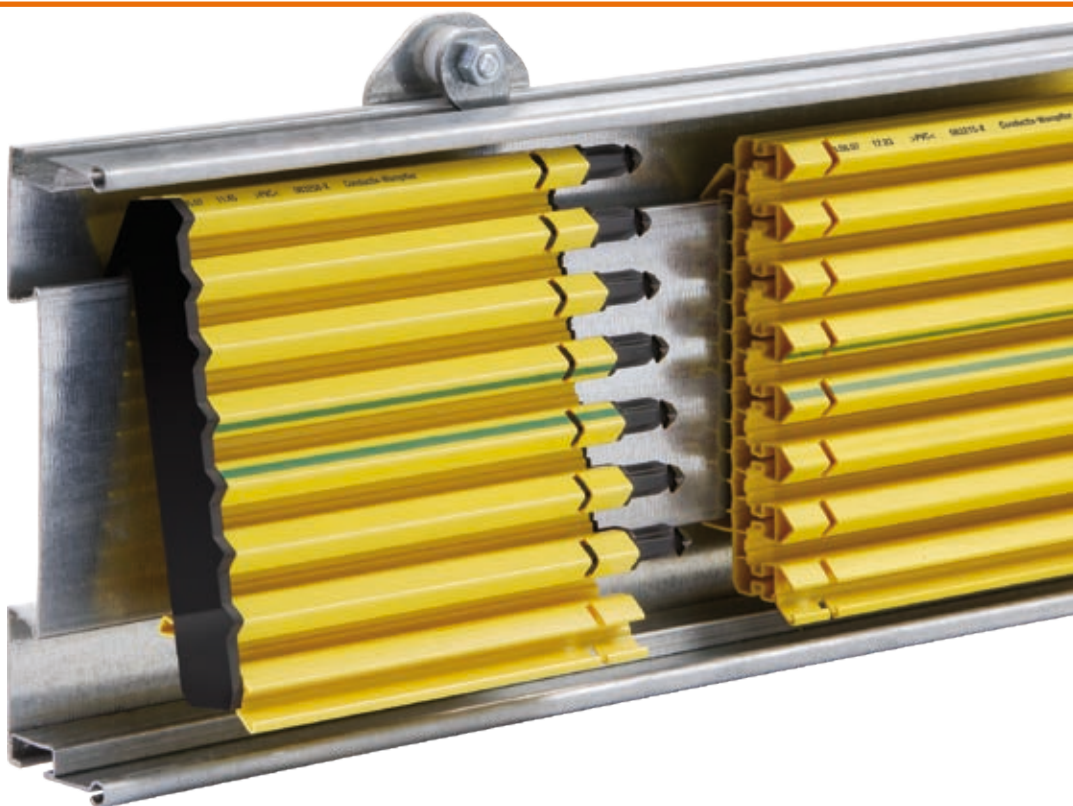
USA / LATIN AMERICA

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Tel: (314) 884-8884



Conductor Rail System

EcoClickLine Program 0832



CONDUCTIX
wampfler

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Note

Images and illustrations used are examples and can vary from the product depending on the version. Subject to change without notification.

EcoClickLine - a system introduces itself!

Tailored ready made

EcoClickLine has been specially developed for the requirements of AS/RS cranes in high rack storage areas and similar linear applications such as transfer cars.

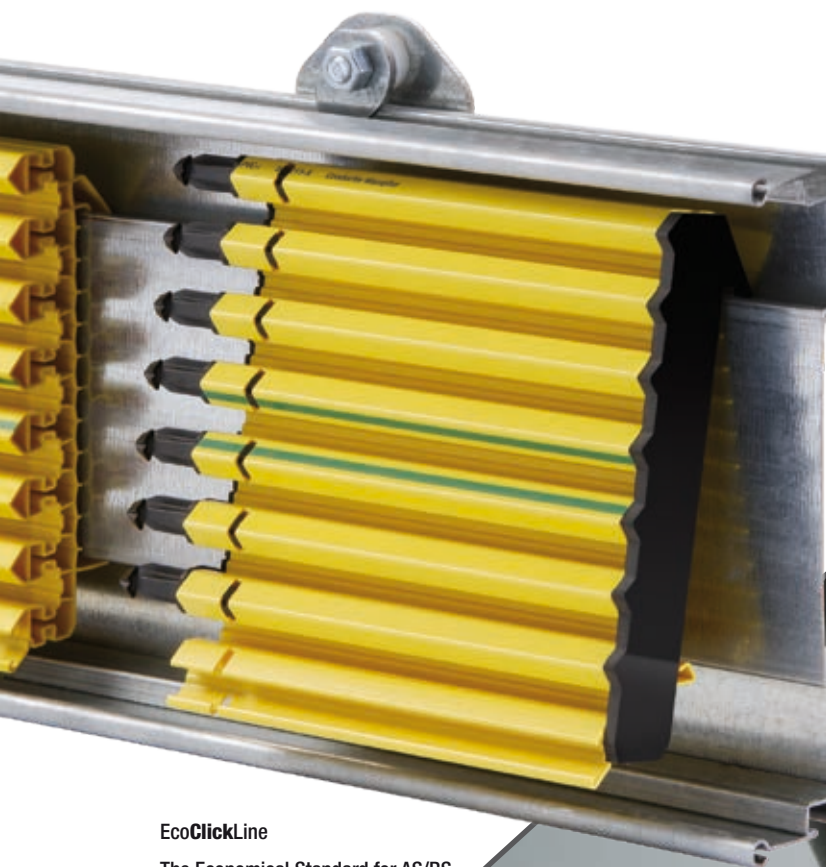
As a sturdy and reliable system **EcoClickLine** fulfills the requirements of current and future storage and retrieval systems: In addition to linking product advantages of known systems, consequent implementation of mostly tool-free assembling techniques as well as the module concept of the system are also unique.

Savings during assembly and logistics

These product characteristics can save considerable costs in the area of assembly and transport and therefore allow the entire costs for system constructors and final customers to be significantly reduced. The system greatly reduces assembly time. This is made possible by several clever detail solutions such as clip connectors and snap locks. The necessary force and form-fit connections are easily accessible. The use of small parts has been reduced to a minimum.

Advantages through module concept

Another advantage is found in the module concept of the conductor rail systems: In contrast to the usual assembly of individual parts, the system comes in modules. A module contains all of the parts needed for one section. As a result, not only is it possible to assemble your system quickly and safely, the continuous logistical procedure remains free from errors to its destination. With the exception of both modules for the conductor strips and positioning modules that are manufactured shelf aisle-specific and according to order, all modules are universally applicable standard modules.



EcoClickLine

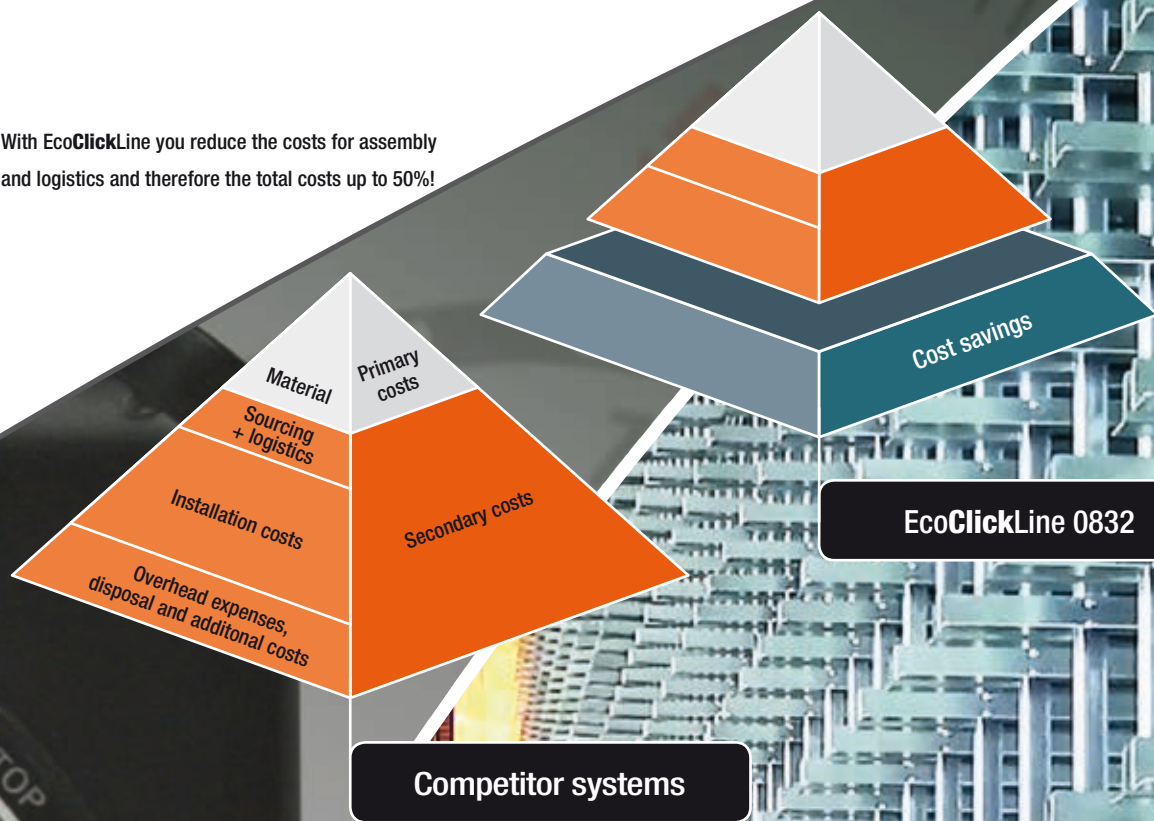
The Economical Standard for AS/RS

The System

- Clip-in section connectors for quick connection of the insulating sections
- Tool-free, continuous fixation of the insulating section
- System hanger with snap lock

**Reduction of
assembly times by
up to 50%!**

With EcoClickLine you reduce the costs for assembly and logistics and therefore the total costs up to 50%!

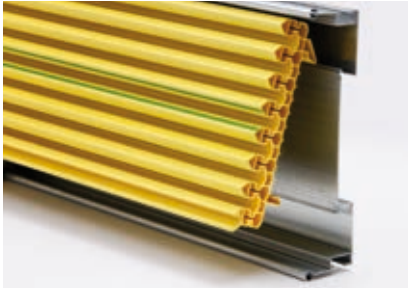


The Module Concept

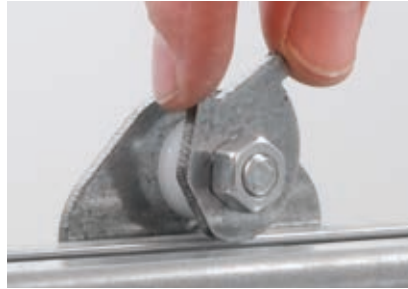
- Easy to assemble
- Assembly-oriented logistics
- Requirement-oriented selection of additional modules such as special components, tools, transport aids, etc

**Reduction of
logistic costs by
up to 50%!**

The System



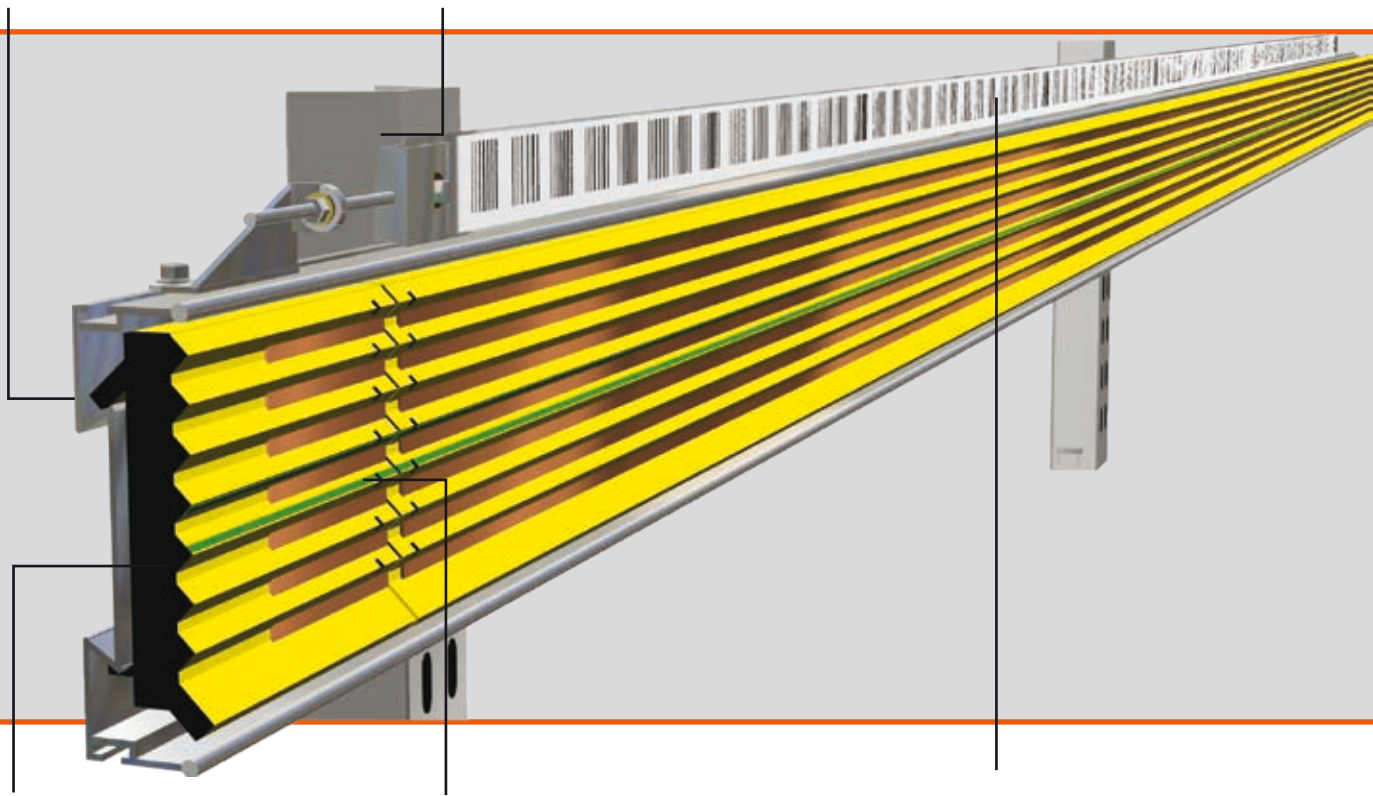
Tool-free assembly through clip-in profile connectors



Snap lock through system hanger



75% reduction of screws due to support profile connections with screw optimization



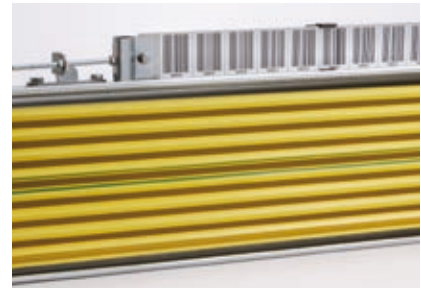
Flexible conductor strip assembly through easy manual feed



Quick connection through clip-in profile connectors



Easy integration of system expansions through integrated receptacle for bar code positioning or data transfer systems



Flexibly expandable due to continuous T notches to support switching flags, control magnets or RFID transponders

The Module Concept

EcoClickLine is based on the combination of universally applicable standard modules and a tailored-to-order, built ready-for-assembly conductor strip module. A transparent and easy to handle number of packages with compact measurements and light individual weight is directly transported to the installation

site in the shelf aisle. All of the materials needed at the installation site are therefore available in sufficient quantity and at the right place. Only a few initial data are needed to order or to select the modules.

The EcoClickLine initial data for product configuration:

- Project and shelf aisle description
- Length of the aisle
- Pole assignment / conductor cross section
- Hang-up distance and shelf type
- Number and type of current collectors
- Environmental temperature range

Standard Modules



Basic module L 1-4 m

- Support and insulation profiles
- Power feed and end caps
- Connector and spare parts



Expansion module 4 m, 8 m or 24 m

- 1, 2 or 6 support profiles each 4 m
- 1, 2 or 6 insulation profiles each 4 m
- Connector and spare parts



Conductor strip package

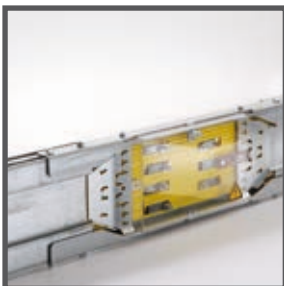
- Ready for assembly in desired feed length
- Including connection cables for the power feed



Current collector

- Ready for assembly
- Design up to 7 poles
- Left and right design

Additional Modules



Additional power feed



Consoles



Positioning / bar code band



Tool set

EcoClickLine | How long should it be?

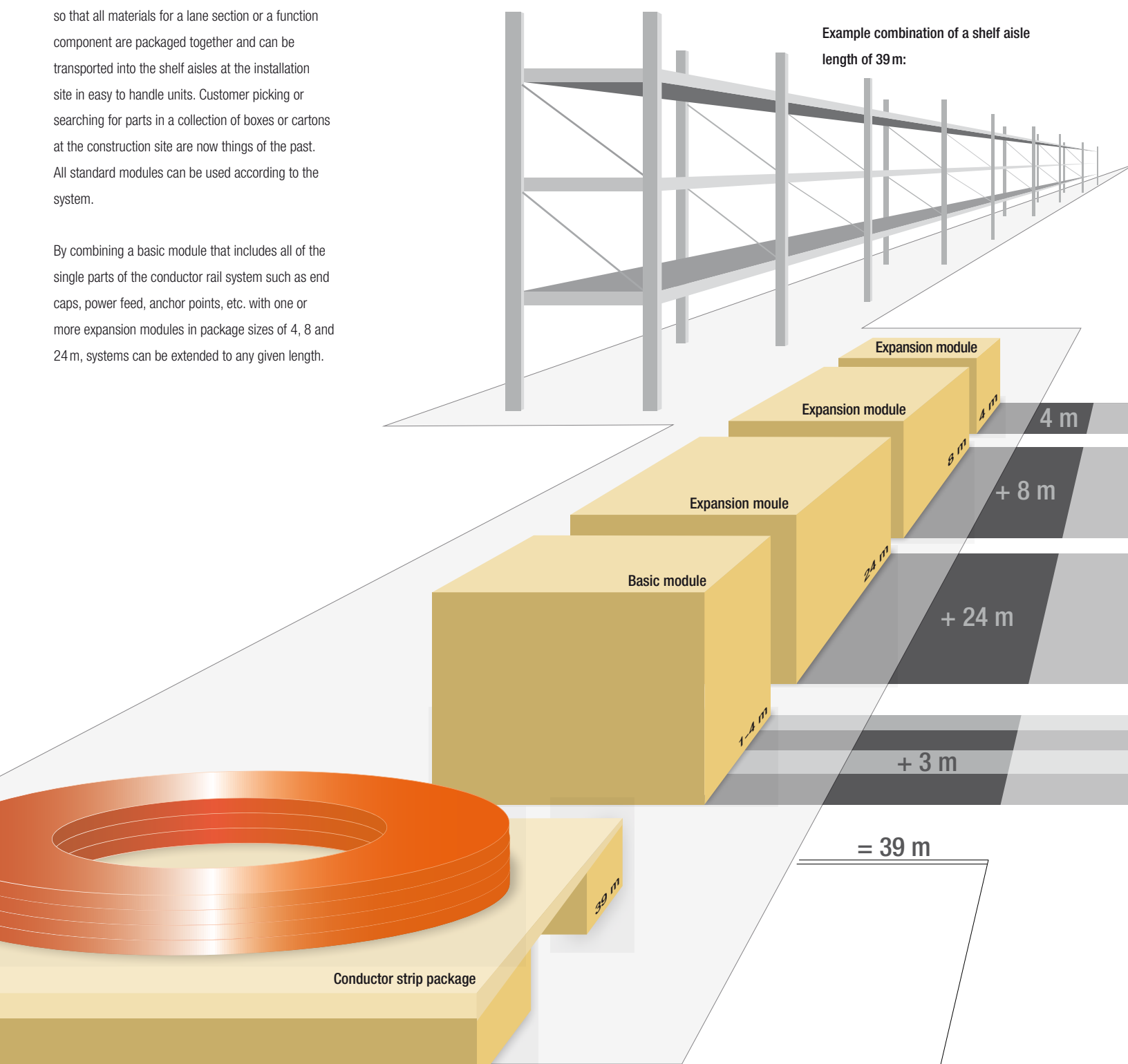
With **EcoClickLine** orders with long item lists and the risk of forgetting something are a thing of the past. Broken down into a few modules identical for each order, which can be supplemented by one or two order-specific items, orders and deliveries are now straightforward and can be processed and checked within a matter of minutes.

The module system by **EcoClickLine** is structured so that all materials for a lane section or a function component are packaged together and can be transported into the shelf aisles at the installation site in easy to handle units. Customer picking or searching for parts in a collection of boxes or cartons at the construction site are now things of the past. All standard modules can be used according to the system.

By combining a basic module that includes all of the single parts of the conductor rail system such as end caps, power feed, anchor points, etc. with one or more expansion modules in package sizes of 4, 8 and 24 m, systems can be extended to any given length.

System-related components are limited here to the lengths and numbers of conductor strips as well as to the connection cables of the power feed. These components are manufactured on short notice according to order and packaged ready for assembly and ready for dispatch according to shelf aisle.

System-related components are limited here to the lengths and numbers of conductor strips as well as to the connection cables of the power feed. These components are manufactured on short notice according to order and packaged ready for assembly and ready for dispatch according to shelf aisle.



Technical Data

System:	4 to 7 pole conductor rail for shelf aisle supply in high rack storage systems and for transfer cars
Installation position:	vertical setup (current collector contact on the side)
Hang-up distance:	nominal rated distance 3.2 m
max. length:	infinitely / expandable through conductor strip connectors
Speedrated	V_{max} 600 m/min (straight strips)
Voltage (UL):	690 V (600 V)
Environmental temperature:	-30°C to + 55°C (max. temperature difference $\Delta T = 50 K$)
Protection type:	IP 23
Chemical stability:	Benzine, mineral oil, fatscaustic
PVC material:	soda 25%, hydrochloric acid concentrated, sulfuric acid 50%
	Data based on 45°C environmental temperature and temporary effect while taking damage not considered to be critical to function into consideration (e.g. traces of oxidation, discoloration)
Additional functions:	Path positioning (optional with bar code or slit code band), data transfer (optional)
Funnel function:	Tangential entry at any position possible. Entry funnel at the end of the conductor rail optional
Position PE:	4th pole from above

External measurements, weights, system grid

Height:	196 mm (220 mm including system hanger)
Depth:	48 mm (50 mm including system hanger)
System length:	4000 mm
System grid:	1 m (intermediate measurement by easy cut possible)
Weight:	5.4 to 6.5 kg/m (depending on conductor equipment)

Main components

Support profile	Deflection resistant, formed sheet steel sections (galvanized)
weight:	1.5 kg/m
Insulate profile	stabilized hard PVC; color YELLOW (RAL 1018)
Dielectric strength:	22.4 kV/mm according to DIN 53481
Creep resistance:	400 < CTI according to IEC 112 / VDE 0303
Flammability:	corresponding the requirements for insulating materials according to UL 94 V-0; severely flammable and self-extinguishing (IEC) DIN EN 60895-11-10B
Weight:	3.3 kg/m
Conductor strips:	E-copper strips with V profile

Cross Section	[mm ²]	10	16	25	35	50
Resistance	[Ohm/1000 m]	1.73	1.08	0.69	0.49	0.35
Impedance at 50 Hz	[Ohm/1000 m]	1.74	1.11	0.74	0.53	0.39
Rated Current According to DIN	[A]	35	63	100	140 ¹⁾	200 ¹⁾
Weight	[kg/100 m]	9.8	13.9	22.4	31.6	42.8
Max. Coil Length	[m]	300	300	175	130	80

1) Mode of operation S5/80% Duty cycle

Configuration:	Cross section at will according to application and feed concept
----------------	---

Relevant standards

DIN EN 60664-1; VDE 0110-1:2008-01	Insulation coordination for electrical equipment in low voltage systems - Part 1: Principles, requirements and tests (IEC 60664-1:2007); German version EN 60664-1:2007
DIN EN 60204-1; VDE 0113-1:2007-06	Machine Safety - Electrical Equipment of Machines - Part 1: General requirements (IEC 60204-1:2005, modified); German version EN 60204-1:2006
DIN EN 60529; VDE 0470-1:2000-09	Systems of protection through housing (IP-Code) (IEC 60529:1989 + A1:1999); German version EN 60529:1991 A1:2000
DIN EN 60243-2; VDE 0303-22:2001-10	Electrical puncture strength of insulating materials - Test procedures- Part 2: Additional requirements for testing with direct current (IEC 60243-2:2001); German version EN 60243-2:2001
DIN IEC 60093; VDE 0303-30:1993-12	Testing procedures for electrical insulating materials; specific puncture strength and specific surface strength of fest, electrical insulating materials (IEC 60093:1980); German version HD 429 S1:1983
DIN IEC 60167; VDE 0303-31:1993-12	Test procedures for electrical insulating materials, insulation resistance of firm insulating materials (IEC 60167:1964); German version HD 568 S1:1990
DIN EN 60112; VDE 0303-11:2003-11	Procedure for the determination of the test number and of the index number of the spark checking of firm insulating materials (IEC 60112:2003); German version EN 60112:2003

Module Selection

Overview Regarding the Number of Modules per Shelf Aisle

The combination of the basic module with additional expansion modules allows any aisle length in the grid of 1 m. Intermediate sizes are easily and quickly created by shortening the last section at the construction site.

Number of modules needed for aisles of up to 120 m (randomly extendable).

Aisle Length [m]	Basic Module 1 - 4 [m]	Expansion Module		
		24 [m]	8 [m]	4 [m]
Order No.	083258-710x12	083215-024x7x12	083215-008x7x12	083215-004x7x12
10 - 12	1	0	1	0
13 - 16	1	0	1	1
17 - 20	1	0	2	0
21 - 24	1	0	2	1
25 - 28	1	1	0	0
29 - 32	1	1	0	1
33 - 36	1	1	1	0
37 - 40	1	1	1	1
38 - 44	1	1	2	0
45 - 48	1	1	2	1
49 - 52	1	2	0	0
53 - 56	1	2	0	1
57 - 60	1	2	1	0
61 - 64	1	2	1	1
65 - 68	1	2	2	0
69 - 72	1	2	2	1
73 - 76	1	3	0	0
77 - 80	1	3	0	1
81 - 84	1	3	1	0
85 - 88	1	3	1	1
89 - 92	1	3	2	0
93 - 96	1	3	2	1
97 - 100	1	4	0	0
101 - 104	1	4	0	1
105 - 108	1	4	1	0
109 - 112	1	4	1	1
113 - 116	1	4	2	0
117 - 120	1	4	2	1

1 x Conductor Strip Module

page 10

n x Expansion Module

(rated length of expansion module = 1000 mm)

page 15

Additional Assemblies and Components

- Current collectors page 16
- System hanger page 11
- Consoles page 11
- Conductor strip connections in case the max. roll length is exceeded page 14

Additional Modules

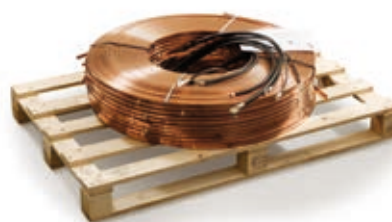
- Positioning module (bar code band system for Leuze BPS laser) page 12
- Holder for coding strip (P+F) page 12
- Entry funnel and additional power feeds page 13
- Additional system expansions are possible (data transfer, crossing sections etc.)



3 standard modules for each aisle length



Expansion module 24 m
with all assembly parts



Conductor strip package ready for assembly

Standard Modules

Basic Module 0832



Description

The basic module includes all of the single components necessary for aisle supply such as the power feed with integrated anchor point, end caps as well as material to setup a aisle of 1 to 4 m.

With the division into 4 partial sections of 1 m each, a meter grid can be assembled without extra cutting. In addition, the short part lengths can be used in case of possible collisions at connection points.

Contents

- 1 x power feed with anchor point pre-mounted including support frames for simple integration into the supporting section L = 1 m
- 3 x supporting section L = 1 m; including insulating section L = 1 m
- 1 x set of end caps (1 x RI / 1 x LE) each 150 mm
- 1 x set of assembly material
- 1 x assembly instructions
- 1 x small parts service package

Order No.	System Length [m]	Weight [kg]
083258-710x12	1 to 4	20.5

The module can be used for all versions irrespective of the conductor strip assembly. The connection cables needed for the power feed are part of the scope of delivery of the conductor strip module and are included depending on the conductor configuration chosen and desired length.

Extension Module 0832



Description

The extension module includes all of the track components including the assembly material for the connection of the support and insulation profiles. The insulation profile have already been implemented at the plant into the support profile and can therefore be taken out of the packaging and directly placed and fixated into the mounted system hanger.

Order No.	083215-024x7x12	083215-008x7x12	083215-004x7x12
Contents			
Steel support profile	6 x 4 m	2 x 4 m	1 x 4 m
Insulation profile	6 x 4 m	2 x 4 m	1 x 4 m
Connector parts	included	included	included
Packaging			
Fork lift accessible	yes	no	no
Shape	coil	coil	carton / coil
Dimensions (L/B/H) [mm]	4000 x 250 x 400	4050 x 215 x 90	4050 x 215 x 60
Gross weight [kg]	110	38	19

Standard Modules

Conductor Strip Module

EcoClickLine allows for flexible assembly of the conductor rail with 5 different shaped conductor strips made of E-copper.

Cross sections of 10, 16, 25, 35 and 50 mm² are available to choose from. The new shapes for continuous conductor strips are based on technology from other conductor rail programs of the Conductix-Wampfler Group. The V geometry guides the brush safely and with less wear into the conductor strip. Elaborate guide constructions prone to errors such as current collector carriers are not necessary. The tried and proven electrical supply via the single current collector allows for good accessibility and simple handling for service.

Preferred configuration

7 pole					
Configuration	7/10	7/16	7/25	7/35	7/50
1. pole	10	16	25	35	50
2. pole	10	16	25	35	50
3. pole	10	16	25	35	50
4. pole PE	10	16	16	16	25
5. pole	10	10	10	10	10
6. pole	10	10	10	10	10
7. pole	10	10	10	10	10

6 pole					
Configuration	6/10	6/16	6/25	6/35	6/50
1. pole	10	16	25	35	50
2. pole	10	16	25	35	50
3. pole	10	16	25	35	50
4. pole PE	10	16	16	16	25
5. pole	10	10	10	10	10
6. pole	10	10	10	10	10

5 pole					
Configuration	5/10	5/16N	5/25N	5/35N	5/50N
1. pole	10	16	25	35	50
2. pole	10	16	25	35	50
3. pole	10	16	25	35	50
4. pole PE	10	16	16	16	25
5. pole	10	16	25	35	50

4 pole					
Configuration	4/10	4/16	4/25	4/35	4/50
1. pole	10	16	25	35	50
2. pole	10	16	25	35	50
3. pole	10	16	25	35	50
4. pole PE	10	16	16	16	25

Any other assembly possible according to specifications.

Depending on the aisle length and the maximum delivery length of the conductor strips, the strips are commissioned assembly-ready ex works. The delivery of conductor strip rolls occurs according to weight, cross section and length in a pallet box or on a Europallet with shrink wrapping. The individual coils are prepared for the feed and are packaged for each aisle and delivered with pole and cross section information.

The delivery marking indicated is placed clearly visible on the outside in order to simplify the allocation of the different modules.

Notes

- Depending on the conductor strip assembly, conductor length and change of the environmental temperature, expansion elements for the PVC profile may be necessary (see expansion elements page 15)
- see technical data for max. conductor and coil length



Order No. 083214

Necessary order information

- aisle length
- conductor strip configuration
e.g. 4 x 16 + 3 x 10 mm²
- delivery marking
e.g. Storage Alpha LOG / Aisle 12

Contents

- 4 to 7 conductor strips
cross section and length according to customer specifications
- 4 to 7 connection cables to connect the power feed to the contact points of the construction. Number and cross section tailored to conductor assignment. Delivery length 1.5 m standard, extra length according to customer specifications
- Including indication of assembly site
e.g. Storage Alpha LOG / Aisle 12 (max. 40 characters)

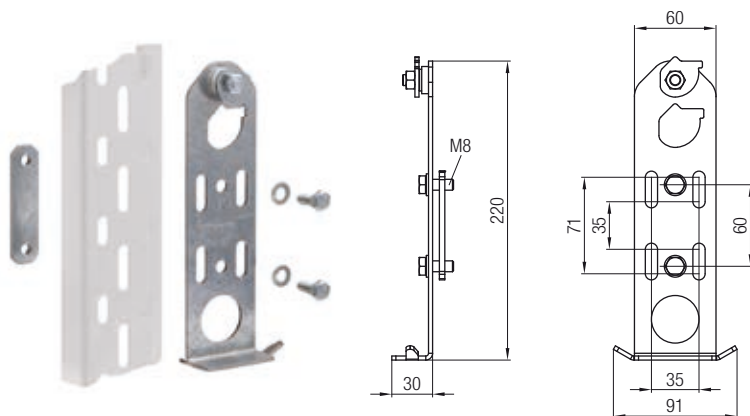
Note

Cables designed for max. environmental temperature of 35°C with nominal load.

Cables for higher environmental temperatures or cold storage applications upon request.

Additional Modules

System Hanger

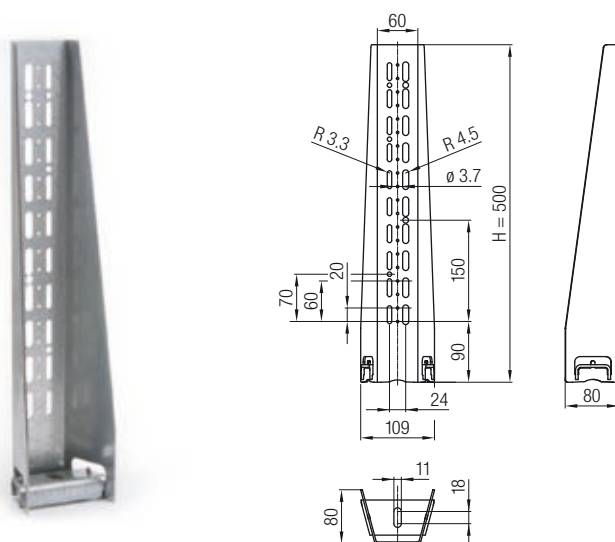


Description

The clip-technique of the system hanger allows for quick assembly of the supporting section to the shelf structure. As an alternative to direct screwing, there are several adapters for building on floor supports, section supports or shelving stands to choose from. Feel free to contact us for more information about the continuously growing selection of adapters (see below for examples).

Order No.	Package Size [pc.]	Weight [kg/pac]
083246-73	5	1.85
Deliverable as multiple of the packaging size		

Consoles



Description

Consoles/ floor supports for quick one-hole assembly. Delivery including heavy-duty dowel M 10/10x90 and washer.

Order No.	Package Size [pc.]	Weight [kg/pac]
080043-11x11x01	5	9.5
Deliverable as multiple of the packaging size		

Spare Dowel: Order No. 41001

On request also available
H = 300, 400, 600 and 700mm

Adapter

By combining the system hangers with several adapters on-site assembly of the structure can be further optimized. Semi-standard components and customer-specific design upon request.



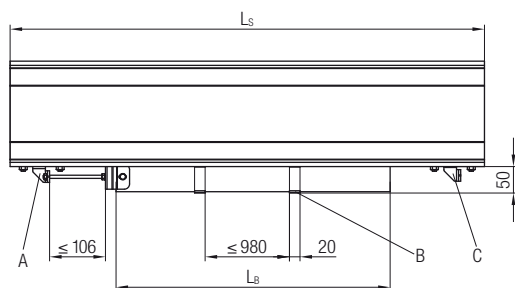
Additional Modules

Positioning Module

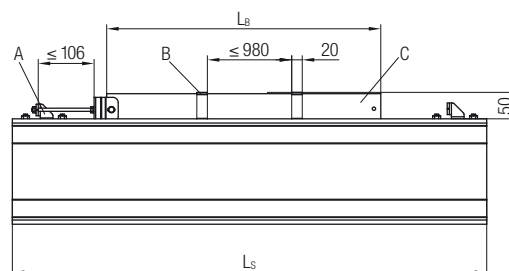


Positioning module

Layout PO (below the support profile)

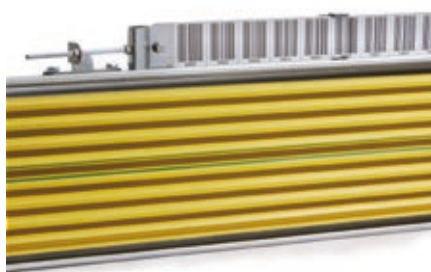
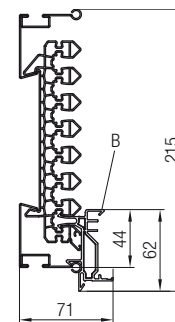


Layout PO (above the support profile)



L_B = Length of bar code strip | L_S = System length
A = Tension unit | B = Strip holder | C = Bar code band

Layout P7



Code band and tension unit

Description

The positioning module allows for quick and flexible integration of the LEUZE bar code band for determining the position with the bar code readers BPS 34 and 37. The bar code band is fixed at the plant according to customer specifications on a stainless steel strip and fastened via clip holders and two tension elements onto the **EcoClickLine** – System. The assembly of the band with a width of 50 mm can occur during this below, above and with 4 to 6 pole systems also before the 7th pole. The module is assembled according to order and contains all of the components necessary for assembly at the supporting section of the conductor rail. The code band is automatically glued under ideal conditions in order to avoid line expansion and therefore also associated measurement errors. Due to the separation of the supporting section and the strip support assembly error corrections and code band repairs are simple and quick, especially in cool storage systems.

Order No.	Length [m]	Weight [kg/m]
080243-1	10 bis 150	0.08

Content of the packaging unit

- 1 x stainless steel band 50 x 0.2 mm with applied code tape of up to 150 m in length
- 2 x tension unit for attachment to the supporting section as well as clip holders for guiding of the code band (1 piece per meter)
- Delivery includes indication of delivery marking / installation situation

Necessary order information

- Installation position (above or below the supporting section = Layout PO, before 7 pole = Layout P7)
- Length of the code band
- Desired initial or final code
- Delivery marking e.g. Storage Alpha LOG / Aisle 12

Notes

- Bar code reader not included in scope of delivery
- For positioning and installation position of the bar code reader please observe information and tolerances indicated by the manufacturer

Overview of Bar Code Assembly

Assembled with Code Band ¹⁾	Length [m]	Standard coding	Special coding ²⁾
BCB 020	20	ascending from 0	Start position according to specifications
BCB 030	30		
BCB 040 to 130	in a grid of 10 m		
BCB 150	150		

1) Code strip layout according to the product identification and specifications of the company Leuze electronic GmbH + Co. KG

2) Special coding upon request (beginning with a total quantity of 150 m, not on stock)

3) In-between length are possible e.g. 47 m (minimum order length 30 m)

The attachment set for the laminated strip of the positioning system WCS by Pepperl + Fuchs is available upon request.

Additional Modules

Funnel / Pick Up Guide

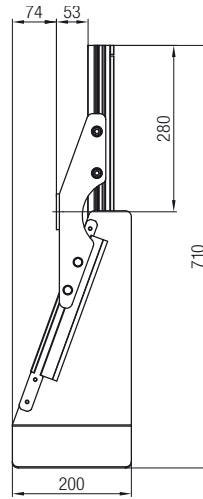
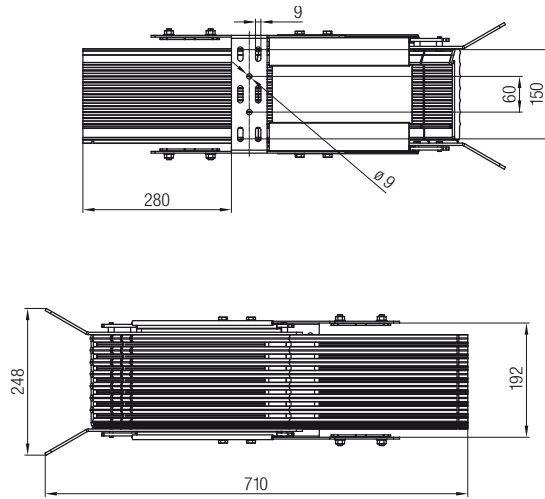


Description

Entrance and exit aids for the current collector e.g. for building divisions or fire protection facilities

Order No.	Design	Max. speed [m/min]	Weight [kg]
083281-72x25x12 ¹⁾	left	80	5.5
083281-71x25x12 ¹⁾	right		5.5

1) available starting in 2009



Note

For tolerances and other project-related information, see the Technical Information:
Funnel **EcoClickLine**

Power Feed



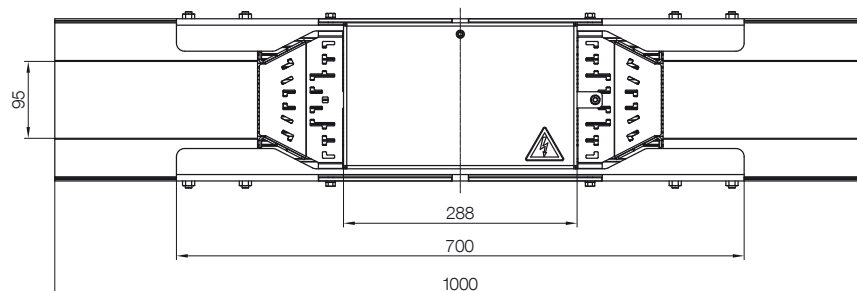
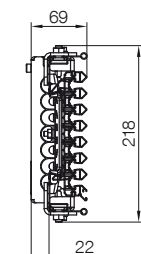
Description

For compensation of the potential difference or constructional sectioning of the aisles additional power feeds may be useful. The feed is integrated before the conductor strips are put in between the two insulating sections. The connecting line set is delivered ready for assembly according to pole assignment and line lengths. Flexible single wires $L = 1.5\text{ m} + \text{optional multiple lengths}$ connect the feed with the contact points of the construction.

Order No.	Description	Weight [kg]
083252-710x12	feed 0832 7P	4.1

Notes

- The basic module 0832 7P (083258-710x12) already includes a feed
- The connecting lines are to be ordered separately When ordering indicate quantity, cross section and length of the desired line
- When using 2 or more feeds the expansion behavior of the system in correlation to the layout and temperature changes must also be taken into consideration. Layout and project support upon request.



Additional Modules

Conductor Strip Connector



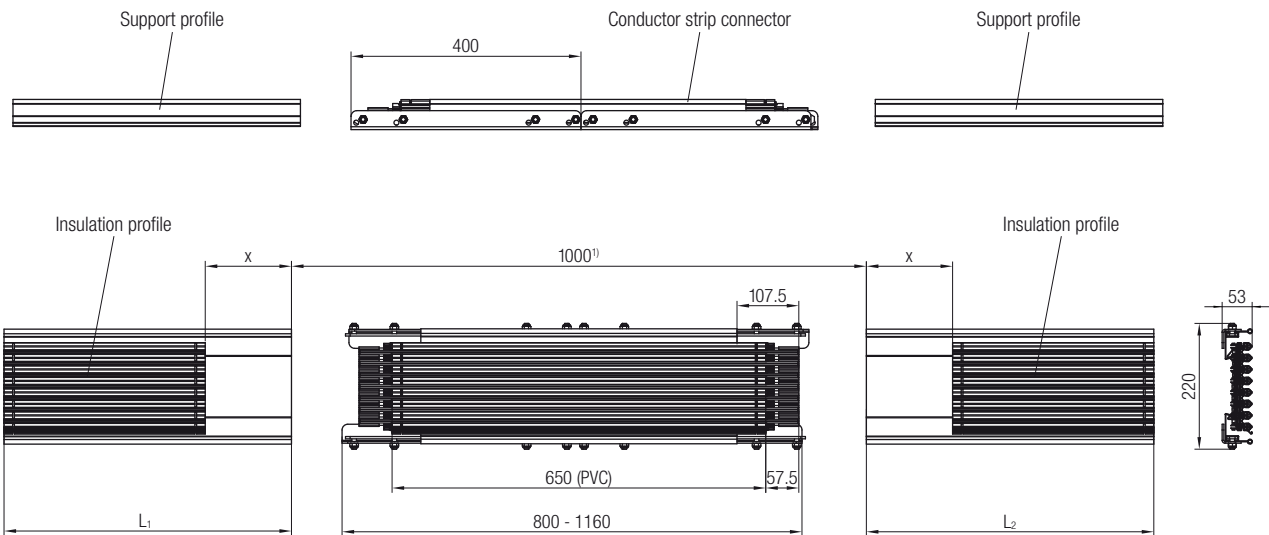
Description

Module unit for connecting the conductor strips. Use for installations with system lengths exceeding the maximum roll length or for system extensions. The conductor assignment occurs according to customer specifications. Delivery including all connector parts as well as supporting frame for rear access to the connection joints.

Order No.	Rated Length [mm]	Weight [kg]
083221-31x7	1000	6.0 - 8.2

Notes

- In order to make assembly easier it is recommended to use one expansion element mounted next to the connection joints.
- Access to the rear side is necessary at the connection joints



x = depending on assembly and operating temperatures
1) Distance of the assembled support sections

Additional Modules

Expansion Module

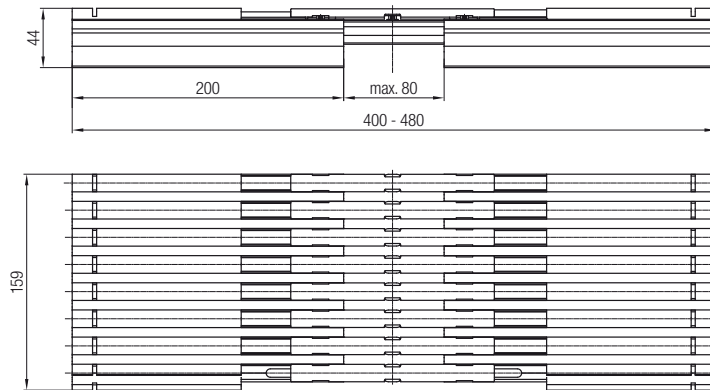


Description

Unit to compensate the expansion of the insulation profiles during temperature changes. The expansion element is premounted and integrated as a standard insulation profiles.

Order No.	Description	Length [mm]	Expansion Distance [mm]	Weight [kg]
083266-2x07x12	expansion distance 0832 7P	1000 / 1080 ¹⁾	80	0.8

1) length extended

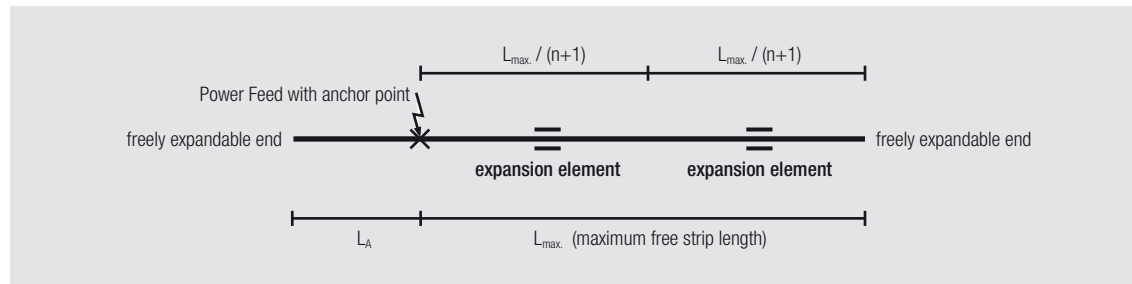


Delivery

- 1 x support profile 1000 mm
- 1 x expansion element 400 mm
- 1 x PVC profile 200 mm
- 1 x PVC profile 400 mm
- Connecting material

Overview of the number of expansion elements required

Depending on a change in temperature and the length of the conductor strip lengths the expansion elements are to be included to compensate the different expansions. The table below shows the number of elements in correlation to the conductor strip assembly.



Example

Aisle length (L_{ges}): 105 m
Position of power feed (L_A): 10 m offset
Conductor strip assembly: 7/25
Temperature difference: 20 K

Test L_A (step 1)

$L_A = 10$ m
Table with 20 K temperature difference
Line for configuration 7/25
 $\Rightarrow L_{max.} (10 \text{ m}) \leq 50 \text{ m}$
 $\Rightarrow n = 0$

Test L_{max} (step 2)

$L_{max} = L_{ges} - L_A$
 $= 105 \text{ m} - 10 \text{ m}$
 $= 95 \text{ m}$
Table with 20 K temperature difference
Line for configuration 7/25
 $\Rightarrow L_{max.} (95 \text{ m}) \leq 100 \text{ m}$
 $\Rightarrow n = 1$

No. of Expansion Elements required

$n = 0 + 1 = 1$

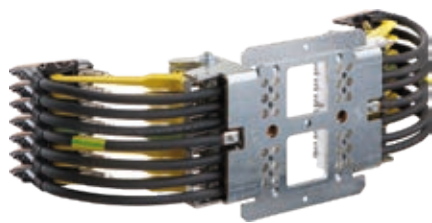
Temperature difference	Configuration	Max. Free Strip Length $L_{max.}$ [m]			
20 k		n = 0	n = 1	n = 2	n = 3
	7/10 and 7/16	≤ 57	≤ 114	≤ 150	-
	7/25	≤ 50	≤ 100	≤ 150	-
	7/35	≤ 35	≤ 70	≤ 105	≤ 140
	7/50	≤ 30	≤ 60	≤ 90	≤ 120
30 k		n = 0	n = 1	n = 2	n = 3
	7/10 and 7/16	≤ 38	≤ 76	≤ 114	≤ 150
	7/25	≤ 38	≤ 76	≤ 114	≤ 150
	7/35	≤ 35	≤ 70	≤ 100	≤ 140
	7/50	≤ 30	≤ 60	≤ 80	-
50 k		n = 0	n = 1	n = 2	n = 3
	7/10 and 7/16	≤ 23	≤ 46	≤ 69	≤ 92
	7/25	≤ 23	≤ 46	≤ 69	≤ 92
	7/35	≤ 23	≤ 46	≤ 69	≤ 92
	7/50	≤ 23	≤ 46	≤ 69	≤ 92

Conductor strip configuration see page 12

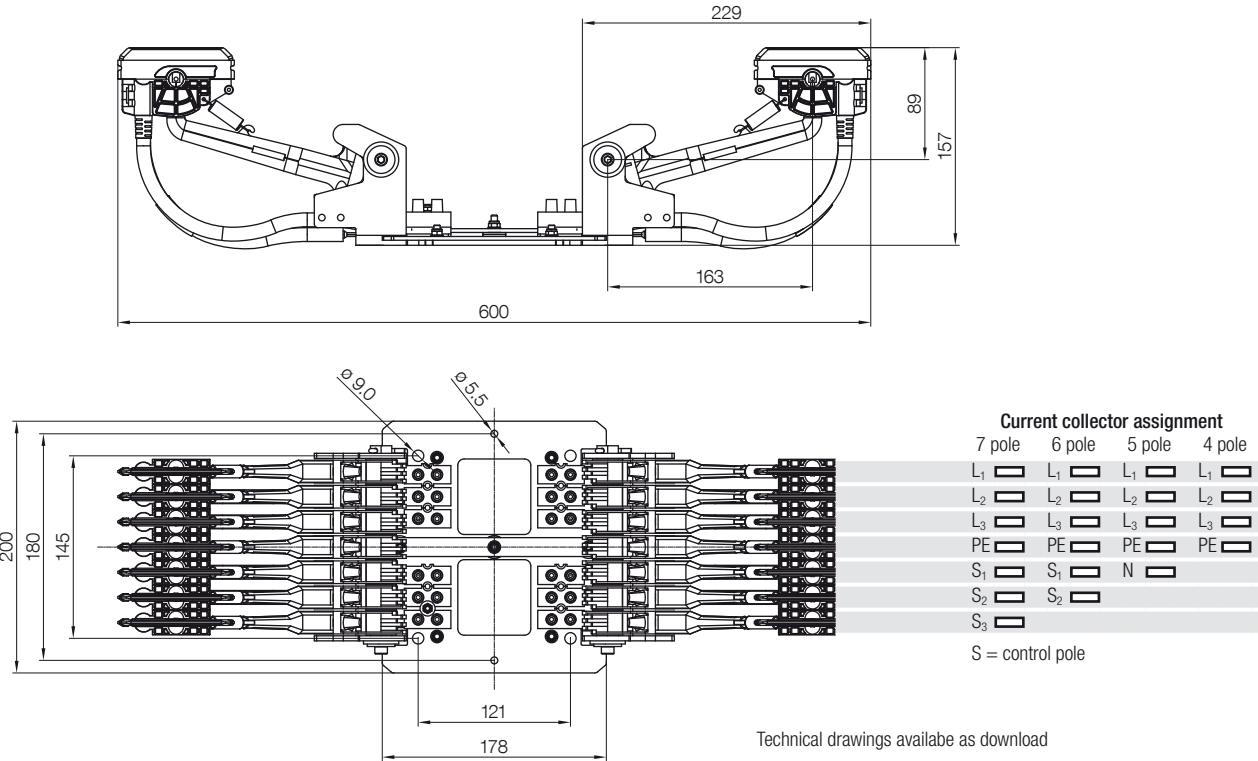
n = no. of expansion elements required

Current Collector

Current Collector 2 x 80A

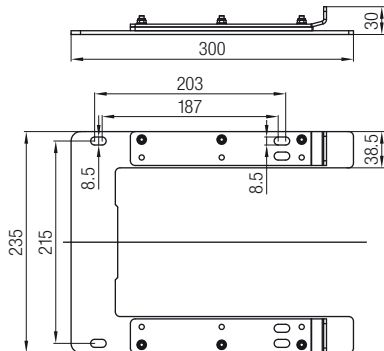


Description
Current collector unit including highly flexible connection cables wired to strip terminals at the assembly section. For easy and quick service, a change support is available (see below).



Order No.	Description	Number of Terminals	Rated Current [A]	Connection Cross Section	PE	No. of Poles	Weight [kg]
083204-0710420	current collector 0832 7P 2 x 80A	2 per pole	2 x 80	16 mm ² (fine strand) 25 mm ² (massive)	on Item 4 (from above)	7	8.6
083204-0610420	current collector 0832 6P 2 x 80A					6	7.6
083204-0510420	current collector 0832 5P 2 x 80A					5	6.6
083204-0410420	current collector 0832 4P 2 x 80A					4	5.6

Change Support for Current Collector 1 x 80A and 2 x 80A



Description
Change support for quick and easy service.

Order No.	Weight [kg]
083051	1.5

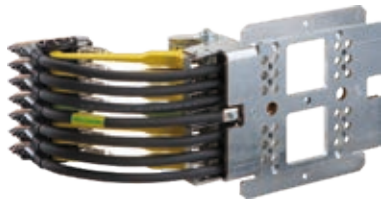
Delivery

- Frame/ change support
- Access including lock to attach to the current collector unit (not illustrated)

Technical drawings available as download

Current Collector

Current Collector 1 x 80A



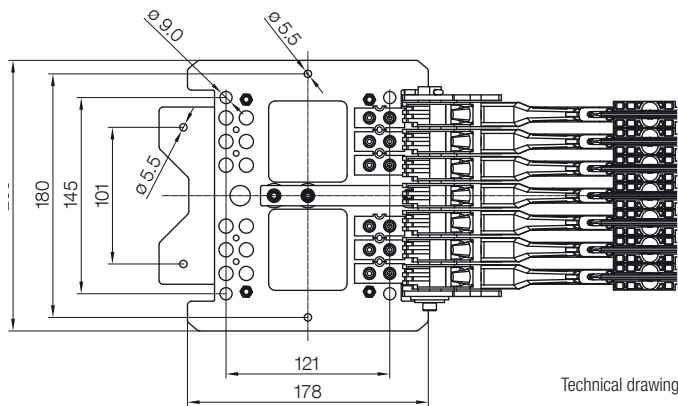
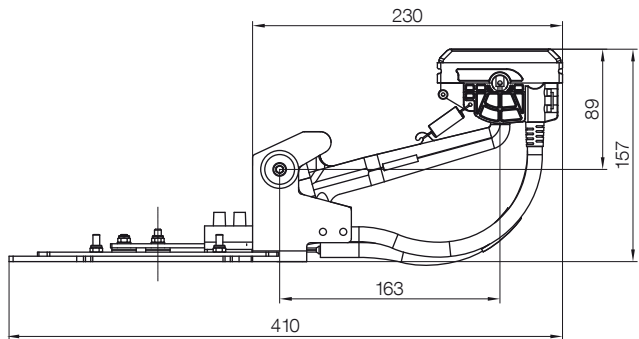
Design LE (left)

Description

Current collector unit including highly flexible connection cables wired to strip terminals at the assembly section.

Note

For use of the current collector 083203 with the change support 083251 the adapter Order No. 08-B020-6755 is required.



Current collector assignment design LE (left)

7 pole	6 pole	5 pole	4 pole
L ₁ <input type="checkbox"/>	L ₁ <input type="checkbox"/>	L ₁ <input type="checkbox"/>	L ₁ <input type="checkbox"/>
L ₂ <input type="checkbox"/>	L ₂ <input type="checkbox"/>	L ₂ <input type="checkbox"/>	L ₂ <input type="checkbox"/>
L ₃ <input type="checkbox"/>	L ₃ <input type="checkbox"/>	L ₃ <input type="checkbox"/>	L ₃ <input type="checkbox"/>
PE <input type="checkbox"/>	PE <input type="checkbox"/>	PE <input type="checkbox"/>	PE <input type="checkbox"/>
S ₁ <input type="checkbox"/>	S ₁ <input type="checkbox"/>	N <input type="checkbox"/>	
S ₂ <input type="checkbox"/>	S ₂ <input type="checkbox"/>		
S ₃ <input type="checkbox"/>			

S = control pole

Technical drawings available as download

Order No.	Description	Design	Number of Terminals	Rated Current [A]	Connection Cross Section	No. of Poles	Weight [kg]
083203-0740420	current collector 0832 7P 1x 80A LE	LE	1 per pole	1 x 80	16 mm ² (fine strand) 25 mm ² (massive)	7	5.2
083203-0640420	current collector 0832 6P 1x 80A LE					6	4.7
083203-0540420	current collector 0832 5P 1x 80A LE					5	4.1
083203-0440420	current collector 0832 4P 1x 80A LE					4	3.6
083203-0650420	current collector 0832 6P 1x 80A RI	RI	1 per pole	1 x 80	16 mm ² (fine strand) 25 mm ² (massive)	6	4.7
083203-0550420	current collector 0832 5P 1x 80A RI					5	4.1
083203-0450420	current collector 0832 4P 1x 80A RI					4	3.6
08-B020-6765	adapter for exchange support	-	-	-	-	-	0.2

Tools and Assembly Aids

General Information

EcoClickLine is designed for assembly that for the most part is tool free and can be performed by one person. For several assembly steps the support of a second person is recommended. The tools and aids required for efficient assembly are available in 2 versions. For the assembly of several aisles or lengths >20m the use of an uncoil device (Tool set PROFI) is recommended.

Tool Set STANDARD and PROFI



Description

The tool set include aids that are required for quick material installation and effective assembly.



	STANDARD	PROFI	Remarks / Use
Order No.	08-W100-0589	08-W100-0590	
Dimensions			
Gross Weight			
Content			
Uncoil Device 0832	-	•	for uncoiling and support the conductor strips
Straightening Device 0832	•	•	for sighting in the conductor strips
Feed in Aid 0832	•	2 pieces	for manual feeding of the strip
Small Parts Service Package	•	•	connectors, pins, nuts, etc.
Transport Roller Set	-	•	transport aid for 24 m module in the aisle
Saw Jig	•	•	use of PVC insulation profiles
Disassembly Tool PVC	•	•	separation PVC connector (set = 2 pcs.)
Ratchet/ Flat Wrench 13 mm Wrench Size	-	•	system hanger / uncoil device / supporting section
Transport Box	-	•	tool storage

Wear and Spare Parts

Repair Module



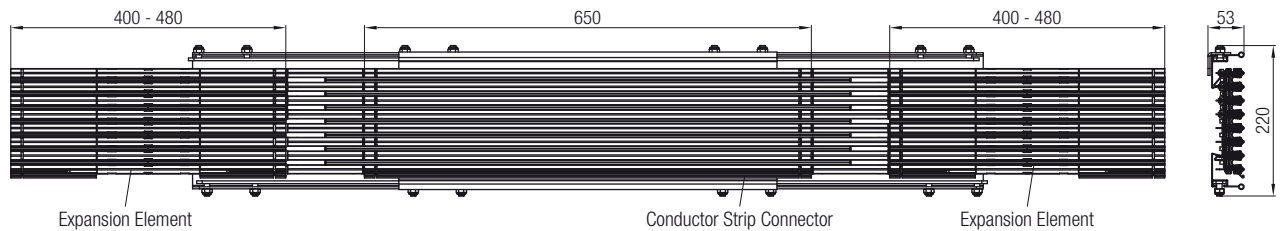
Description

Repair module for the exchange of a part of the conductor rail system. Accident damage can therefore be quickly eliminated despite the continuous conductor strips. For the exchange of longer row sections, the module can be extended with standard modules e.g. Expansion Module 4 m and conductor strips sections.

Order No.	Weight [kg]
083222-31x7	28

Content

- 1 x support profile with assembly frame
- 1 x insulation profiles with connection units
- 1 x expansion element
- 7 x conductor strip sections
- 1 x set of disassembly tools for PVC connector



Small Parts Service Package



Description

Spare part package with all of the small parts and assembly parts required in the standard system for simple assembly use. The small parts service package is a part of the basic module and tool sets.

Order No.	Weight [kg]
08-B055-0005	0,4

Content

- 2 x clamps
- 10 x Connecting pins for the supporting section
- 12 x Connectors for the insulation profiles (4 part component)
- 2 x grub screws feed/ Cu- connector
- 10 x nut M8 with integrated washer
- 1 x assembly instructions / spare part use

Current Collector - Spare Parts



Description

For simple and safe exchange there are complete current collector heads available including highly flexible connecting cables. Brush changing according to specifications only possible together with the cable (safety-relevant wear part).

Order No.	Spare Heads Complete	Pole Number	Weight [kg]
083003-0x47	(SET) 6 x 2 PH + 1 x 2 PE	7	2.1
083003-1x41	1 x PH	1	0.1
083003-2x41	1 x PE		

Note

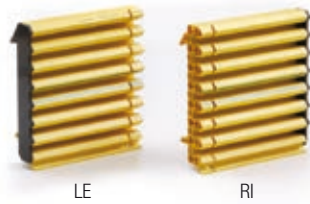
PE spare head cannot be used for phase (wrong placement safety provided)

Current Collector Arm without Head

Order No.			
08-S265-2001	1 x PH	1	0.4
08-S265-2002	1 x PE		

Wear and Spare Parts

End Cap



Description

End cap for termination and contact protection at the end of the insulation profile. Delivery includes insulating connectors.

Order No.	Design	Weight [kg]
083271-7	RI (right)	0.3
083272-7	LE (left)	

Insulating Connector



Description

Connector components for insulation profile.

Order No.	Weight [kg]
083229-10x7	0.2

Content

12 x 4-part component (sufficient for 6 section connections)

Connector Set



Description

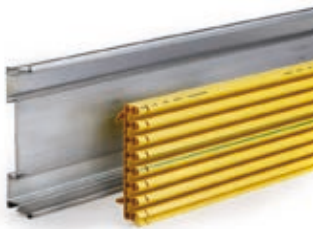
Connector set for a system connection (support and insulation profile).

Order No.	Weight [kg]
083229-31x0	0.2

Contents

- 2 x clamps complete
- 2 x centering pins
- 2 x 4-part component insulating connectors

Insulation and Support Profiles



Description

Insulating and supporting section segments for replacement requirements.

Order No.	Design		Weight [kg]
	Profile	Length [m]	
083210-001x7x12	Insulation profile 0832	1	1.5
083210-004x7x12	Insulation profile 0832	4	6.1
083219-001x7x40	Support profile 0832	1	3.3
083219-004x7x40	Support profile 0832	4	13.2

Bar Code Band - Spare Parts

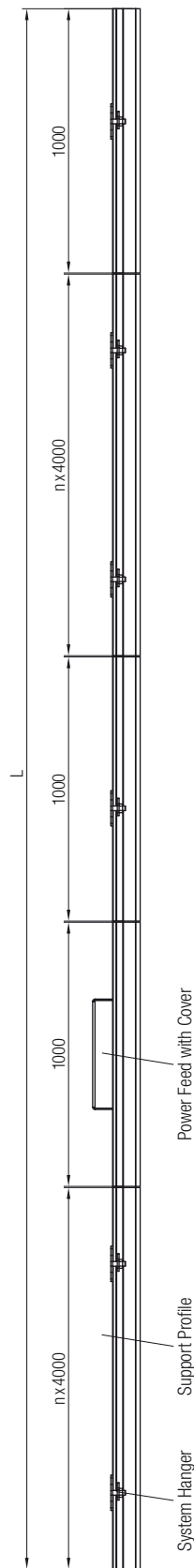


Description

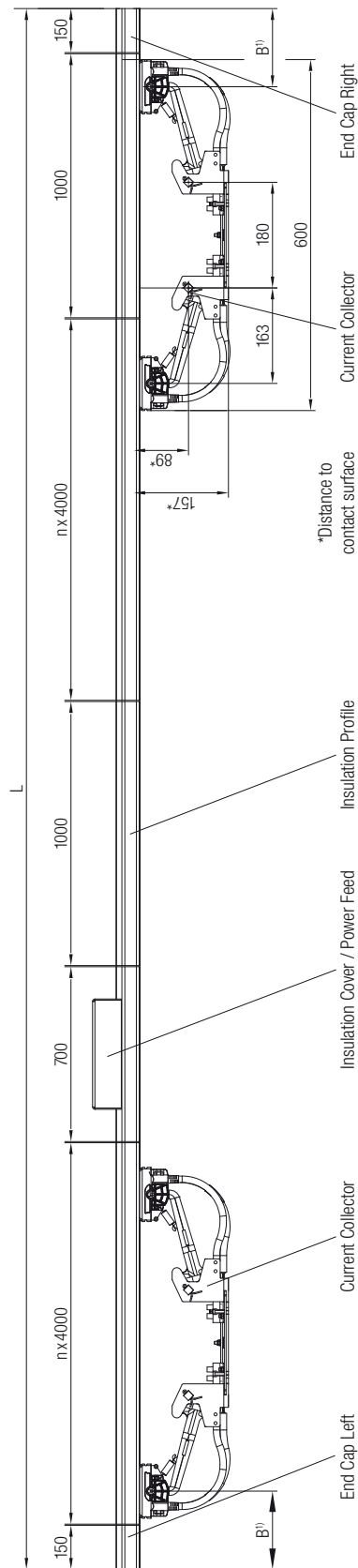
Components for the replacement and/or equipping of an alternative installation position.

Order No.	Design	Weight [kg]
08-H016-0257	Bar code band holder package unit with 20 pcs	0.2
08-S008-0303	Tension set for assembly version P0	0.3
08-S008-0304	Tension set for assembly version P7	0.6

Sketch of supporting section

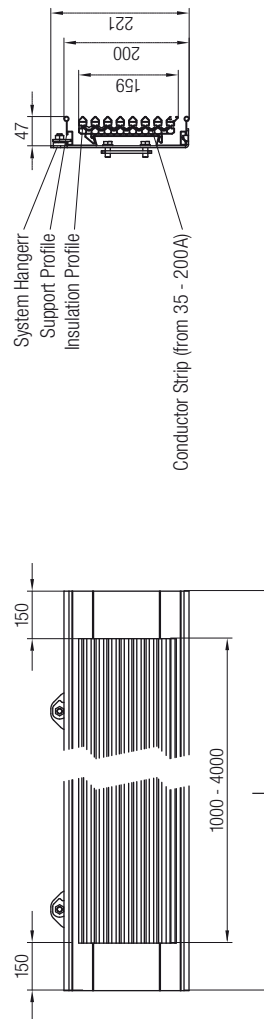


Sketch of insulating section



1) min. 200 + expansion distance

Nominal Offset PVC and Supporting Section joint



Frequently Asked Questions

Up to what length can the system be used?

Theoretically the system can be expanded to any length. For lengths of more than the maximum coil length of the conductor strips, the conductor strip connectors as well as additional expansion elements may be necessary. The coil lengths have been designed for practical handling and coverage of the most frequently used aisle lengths. For conductor cross sections of less than 50 mm² lengths of 100 m and more are possible. In connection with a conductor strip connection aisles with 50 mm² and 160 m are possible.

Can the system also be built vertically at the pole?

The system has been designed for horizontal assembly and uses this to its benefit. Vertical assembly is possible with cut backs (upon request). For vertical installation e.g. at the AS/RS crane, conductor rail system 0831 is technically better suited in design as a connector system.

Can this be used in cold storage warehouses and can the same components be used here?

The system can be used also for cold storage systems. Several points such as additional expansion elements are to be taken into consideration during selection and assembly (see technical guidelines and operating instructions).

Can the system be used also without the supporting section in order to save costs?

The system has been designed so that the supporting and insulating sections work together and they should not be used separately. Omitting the supporting section causes assembly costs to increase and at the same time limits the essential advantages of the system.

Can the modules also be bought in individual parts?

The module concept allows for standardization. Separating the module means more expense and higher system costs. Individual parts can be purchased as spare parts.

Is it possible to mount the system hanging (with operation going downward) - e.g. under the ceiling of the hall?

The system has been designed for lateral operation with simple clip-in assembly for the insulating section. Assembly with operation from below requires additional securing of the system. As of early 2008, the system has not been released yet for this type of installation position. The extra charges for the feed (depending on the height of the assembly) are also to be taken into consideration here.

Is it possible to buy the system also as a 4 or 5 pole system?

A pole number of 7 covers the requirements of current and future AS/RS cranes applications. Equipping the system with 4, 5 or 6 lines is possible.

Is parallel switching of the conductors possible?

Parallel switching of the conductors is only allowed to reduce the potential difference. Parallel switching to increase the current is controversial from an engineering perspective especially with regard to insurance and is therefore not permitted as a general rule. Irrespective of whether it is permitted or not, lines and conductor rails are to be fused in such a manner that in the event that one conductor is defect the remaining cross section is not overloaded. When fusing the conductor rails it should also be taken into consideration that this does not involve a fixed connection between current collector and conductor rail and that these contact points can vary greatly with regard to their quality, depending on age and environmental factors.

Can the system be repaired after an accident?

Yes. Repair with a repair kit as well as extension with a connector is possible.

Which tools are required for assembly?

The system has been created in such a way that it is self-explanatory and few tools are needed. Only one screw wrench (wrench size 13) is needed as a tool for the screw connections. For the feed of the conductor strips a uncoil device with aligning tool as well as feed aid are available. These tools can be bought or leased.

What is the maximum assembly distance of the system?

The system can have a maximum distance of 4 m. The recommended distance is between 2.5 and 3.2 m. This value is based on a mean load of 100 kg or 1000 N. It is possible to extend the system by limiting the weight load. A typical distance selected for pallet storage is often a distance of 3.2 m for 3 Europallets (net 800 mm).

Are there also conductor strip materials other than copper?

The system has been designed as standard for copper strips of up to a nominal cross section of 50 mm². Other conducting materials are available upon request.

Which nominal cross sections are available?

5 cross sections are available for the system: 10, 16, 25, 30 and 50 mm²

Can the system also be delivered curved?

The system is designed for straight strips. If necessary other programs can be used.

Questionnaire

If you would like us to make you an offer, please fill out the following information: If you have any questions please do not hesitate to contact a sales representative.

General project information

Project: _____

Number: _____ aisles Length: _____ m

Configuration

Pole	10 mm ²	16 mm ²	25 mm ²	35 mm ²	50 mm ²
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Number: _____ aisles Length: _____ m

Configuration

Pole	10 mm ²	16 mm ²	25 mm ²	35 mm ²	50 mm ²
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Temperature Range

☐ +10 ... +35°C
☐ _____ °C to _____ °C ☐ Cold storage

Installation Position

☐ In the floor area lateral access (standard) Hight lower edge _____ mm
☐ _____

Installation

☐ Floor supports
☐ Shelf assembly
☐ _____

Electrical Parameters

• Operational voltage ☐ 3 Ph 400 VAC
 ☐ _____
• Supply frequency ☐ 50 Hz ☐ 60 Hz
• Mean current load _____ A
• AS/RS mode of operation ☐ S _____ / _____ %
• Drive performance per AS/RS crane _____ kW
• Max. permissible voltage drop ☐ 5% ☐ _____ %
 ☐ _____ V

Feed

☐ 1 x system power feed
 (1 m to L/2 from aisle end)
☐ _____ additional power feeds

Number of Consumer Loads / Current Collector Type

☐ 1 x RBG ☐ 2 x RBG No. of current collectors per RBG _____
☐ Double current collectors 2 x 80A ☐ with change support
 Single current collector 1 x 80A ☐ with change support
☐ _____

Options/ other System Requirements

☐ Dividers e.g. Fire vents or gates
☐ Converters or curve goers
☐ Leuze BPS coding strip option (please indicate coding, see below)
☐ WCS –Laminate strip (Pepperl+Fuchs)

Assembly Performed

☐ by customer
☐ by Conductix-Wampfler Service

Assembly Tools

☐ EcoClickLine tool set existing
☐ Offer tools for sale
☐ Leasing of tool set desired

Additional Information; e.g. Coding

Please mail your offer to the following address

Company: _____ Cust. No.: _____
Dept./ Attn: _____
Address: _____

Phone: _____ Fax: _____
Email: _____

Tailored Service

Would you like a bit more?

When it comes to conductor rail systems, we think of more! Regardless of whether you want information, a solution for your task or on-site support. We speak your language. Feel free to contact us! We've got your solution.

Project management

- Admission of the assignment list and engineering of the system

Consignment sale and pre-assembly

- Pre-assembly and assembly-oriented packaging
- Pre-built material transport up to the storage aisle

Assembly and commissioning

- Installation, commissioning and instruction by a specialist up to handover to the customer



Leasing service and supervisor

- Provision of the assembly facilities and special tools for efficient assembly of our systems
- Upon request also support by an experienced supervisor from our service team

Maintenance & Service

- Regular inspections of the system, exchange of wear parts, cleaning and testing
- Assembly and maintenance training
- Supervising



From project management, to pre-assembly up to on-site installation. Conductix-Wampfler specialists will accompany you all over the world!



Other Products from Conductix-Wampfler

The products described in this catalog represent a few of the products from the broad spectrum of Conductix-Wampfler components and systems for the transfer of energy, data, gases, and fluids. The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler products are needed to fill the application. You can count on all of Conductix-Wampfler's business units for hands-on engineering support - coupled with the perfect solution to meet your energy management and control needs.



Motor driven cable reels

Motor driven reels by Conductix-Wampfler are the perfect solution for managing long lengths of heavy cable and hoses in very demanding industrial applications. Monospiral, level wind, and random wind spools.



Slip ring assemblies

Whenever powered machinery needs to rotate 360°, field proven slip ring assemblies by Conductix-Wampfler can flawlessly transfer energy and data. Here, everything revolves around flexibility and reliability.



Conductor bar

Whether they are enclosed conductor rails, expandable single-pole bar systems, or high amperage bar for demanding steel mill use up to 6000 amps. Conductix-Wampfler's conductor bar is the proven solution to reliably move people and material.



Spring driven cable reels

We have 60 years experience and trusted brands such as Insul-8, Wampfler, and IER. We offer small cord reels all the way to large multi-motor units, a wide range of accessories, and hazardous location reels.



Cable Festoon systems

It's hard to imagine Conductix-Wampfler cable trolleys not being used in virtually every industrial application. They are reliable and robust and available in an enormous variety of sizes and models.



Push Button Pendants

Our ergonomic pendants are ideally suited for industrial control applications. They are available in a wide range of configurations for overhead cranes and other machinery.



Radio remote controls

Safe, secure, and reliable radios use the latest in microprocessor technology. Available in several models for overhead crane control and other types of machinery.



Inductive Power Transfer IPT®

The contact-less system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.



Energy guiding chains

The "Jack of all Trades" when it comes to managing energy and data cables and air and fluid hoses. A wide range of energy guiding chains are available for many industrial applications.



Air hoists and balancers

ENDO Air hoists accurately place delicate loads and continuously vary the speed for precise positioning. They run cool in continuous operations.



Bumpers

Conductix-Wampfler offers a complete range of bumpers for the auto industry, cranes, and heavy machinery. These include rubber, rubber/metal, and cellular types.



Spring balancers and retractors

ENDO spring balancers by Conductix-Wampfler are rugged, reliable high-precision positioning devices that reduce operator fatigue and assist with accurate tool placement.

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