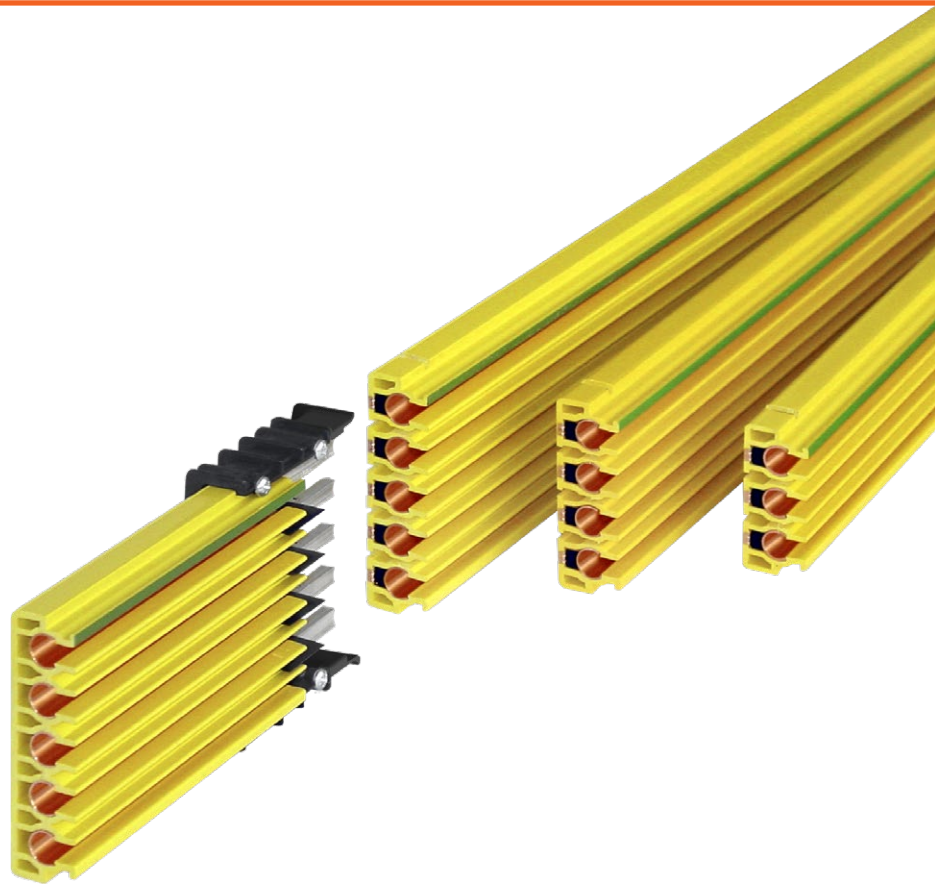


Multipole Conductor Rail

MultiLine Program 0831



CONDUCTIX
wampfler



ProShell - the modular carrier profile as a system supplement for program 0812 and 0831
ProShell catalog KAT0800-0003-E available for download at www.conductix.com

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.

Contents

Description / Technical Data

Description	4
Technical Data	5

Conductor Rails

Rails complete with pre-mounted Connector	6
Power Feeds	7
Hanger Clamps	9
Anchor Clamps	10
End Caps	11
Air Gap Insulating Sections	12
Pick-up Guides for Transfer Points	12
Expansion Element	13

Current Collectors with Accessories

Collector Support Brackets for current collector	15
Support Spring Plates	17
Connection Cable	17
Current Collector Units	18
Double Current Collector Units	21

Wearing and Spare Parts

Rail Connectors	23
Current Collector Head	23
Stabilizing Springs for Current Collector Head	23

Mounting / Accessories

Support Arm	24
Girder Clip	24
Weld-on Bracket for Support Arm	24

Others

Arrangement Examples	25
Program Overview	26
General Hints	26

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 / combinable with ProShell Support Profile
- 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 13/14). 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).

Critical installation situations, optional locks / safety ropes are available.

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.

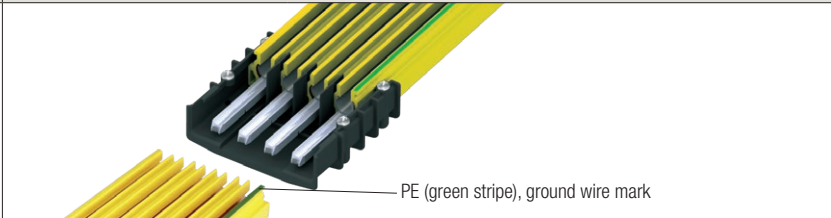
	Current Collectors		Current Collector Units single without Terminal Box	
	55	80	54	80
Max. Current at 100% Duty Cycle [A]	55	80	54	80
Part No.	083102-... (page 15)	083106-... (page 16)	083103-... (page 18)	083107-... (page 19)
... also for Pick-up Guides	yes	yes	yes	yes
... for Transfer Points	yes	yes	yes	yes

Technical Data

Conductix-Wampfler Multipole Conductor Rail Program 0831

Conductor Rail	Galvanized steel	Copper			Data-metal
		083112	083115	083116	
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

Nominal Voltage [V]	500
Min. Operating Parameters	U _{min} 24V, I _{min} 1A (manufacturer recommendation)
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]	400 (without cone)
Ambient Temperature max.	55°C
Ambient Temperature min.	6°C; -30° to +6°C solutions available on request
Max. Temperature Difference	50°K

Relevant Norms	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 0113-1:2019-06	Machine Safety - Electrical Equipment of Machines - Part 1: General requirements (IEC 60204-1:2016, modified); German version EN 60204-1:2018
	DIN EN 60204-32:2009-03 VDE 0113-32:2009-03	Machine Safety - Electrical Equipment of Machines - Part 32: Requirements for leverage (IEC 60204-32:2008, modified); German version EN 60204-32:2008
	DIN EN 60529:2014-09 VDE 0470-1:2014-09	Systems of protection through housing (IP-Code) (IEC 60529:1989 + A2:2013); German version EN 60529:1991 A1:2013

Flammability / fire safety	Meet requirements for insulation materials in UL 94 V-0; Flame retardant and self-extinguishing (IEC 60695-11-10)
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Air and Surface Creepage	depending on degree of pollution; surface creepage distance 30 mm to DIN VDE 0110 Part 1 + 2
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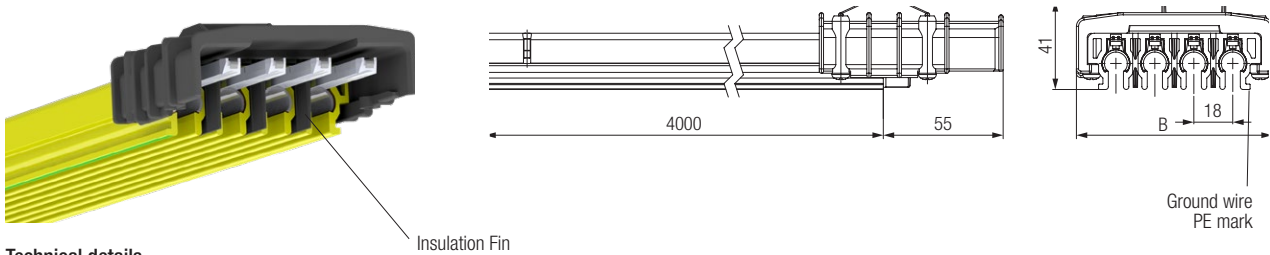
Protection Type	IP 23 with horizontal arrangement IP 21 with vertical arrangement
-----------------	--

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 as well as flavors (Special material on request)			
Local approvals	UL / CSA / GOST-R			

Note: Additional informations on request.

Conductor Rails

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



Technical details

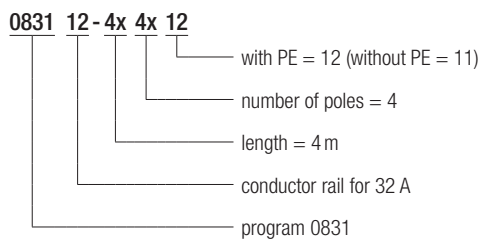
- The table below refers to standard insulation fins.
- Intermediate lengths are available!

Multipole Conductor Rail	Power Supply with PE Part No.	Controls without PE Part 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

* Standard range

Short lengths (SAP CONFIG 3129410)

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



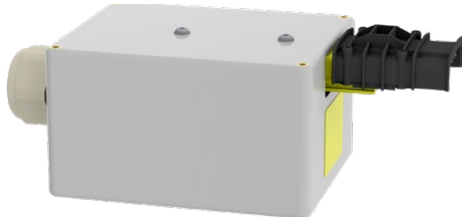
Note

Plastic and metal (conductive material) have a different expansion behavior. To compensate for rail- and insulation at the reference temperature of 20° C are of different lengths (2 mm shorter rail, as insulation).

A gap in the assembled state, between the rails, of 2 to max. 8 mm. is possible, depending on temperature.
For applications below + 5 ° C (cooling applications), there are special rails are available. Please contact us.

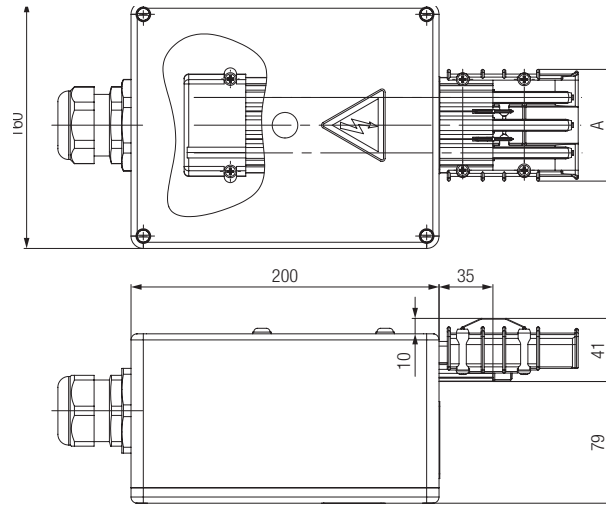
Power Feeds

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



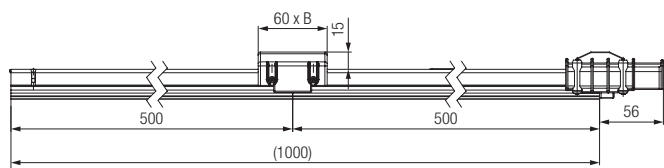
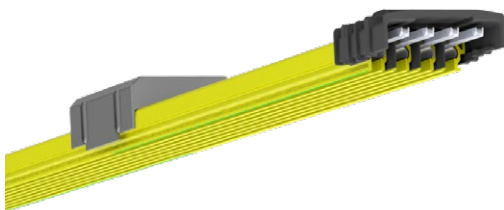
Technical details

- 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" Part No.	Power Supply with PE type "left" Part No.	Controls without PE Part No.	Poles	Gland	A [mm]	Weight [kg]
083153-310x12	083153-310x13	083153-310x11	3	M 50	72.5	1.460
083153-311x12	083153-311x13	083153-311x11		M 40		1.430
083153-312x12	083153-312x13	083153-312x11		M 25		1.410
083153-410x12	083153-410x13	083153-410x11	4	M 50	90.5	1.985
083153-411x12	083153-411x13	083153-411x11		M 40		1.955
083153-412x12	083153-412x13	083153-412x11		M 25		1.935
083153-510x12	083153-510x13	083153-510x11	5	M 50	108.5	2.330
083153-511x12	083153-511x13	083153-511x11		M 40		2.300
083153-514x12	083153-514x13	083153-514x11		M 63		2.365

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



Technical details

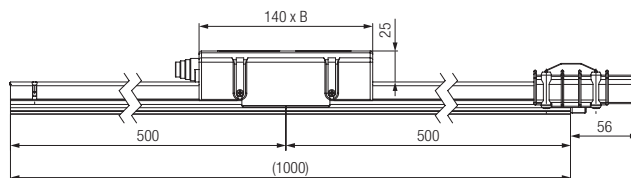
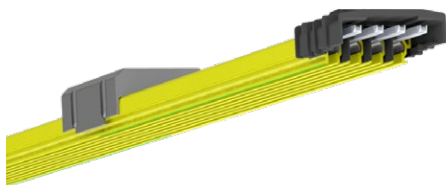
- Connection cable max. 10 mm²
- Cable lugs (according to nominal current) are included
- connection screws M5

In-line Feed	Power Supply with PE Part No.	Controls without PE Part 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

* Standard range

Power Feeds

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



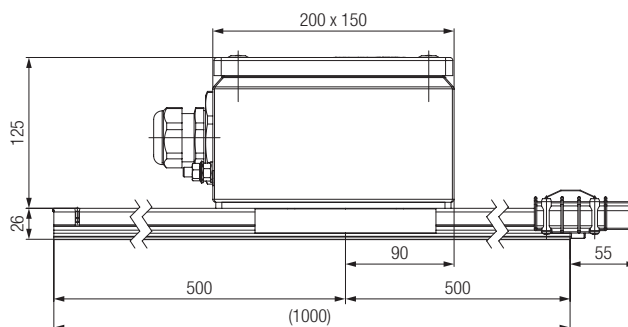
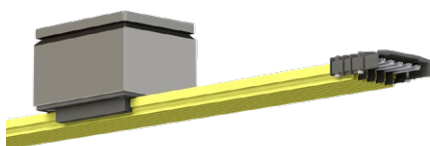
Technical details

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

In-line feed	Power Supply with PE Part No.	Controls without PE Part 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

* Standard range

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



Technical details

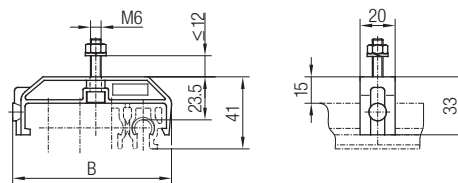
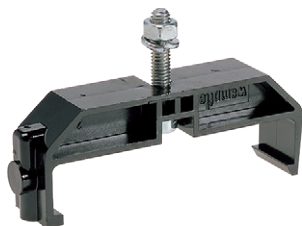
- Connection cable max. 35 mm²
- Use cable lugs for threaded connection M8 (not included)

In-line feed	Power Supply with PE Part No.	Controls without PE Part No.	Poles	Gland	Weight [kg]
Steel Rail 32 A	083152-323x12	083152-323x11	3	M 32	3.000
	083152-421x12	083152-421x11	4	M 40	3.720
	083152-521x12	083152-521x11	5	M 40	4.600
Copper Rail 60 A	083152-353x12*	083152-353x11	3	M 32	2.430
	083152-451x12*	083152-451x11	4	M 40	3.190
	083152-551x12*	083152-551x11	5	M 40	3.950
Copper Rail 100 A	083152-360x12*	083152-360x11	3	M 50	2.680
	083152-460x12*	083152-460x11	4	M 50	3.520
	083152-564x12*	083152-564x11	5	M 63	4.350
Copper Rail 125 A	083152-370x12	083152-370x11	3	M 50	2.920
	083152-470x12	083152-470x11	4	M 50	3.830
	083152-574x12	083152-574x11	5	M 63	4.730

* Standard range

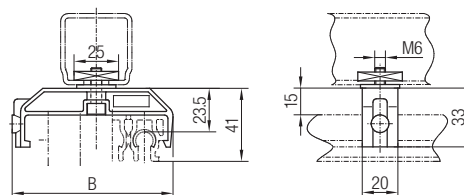
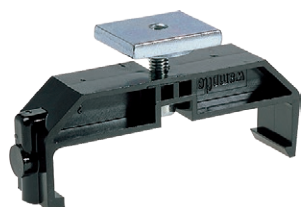
Hanger Clamps

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



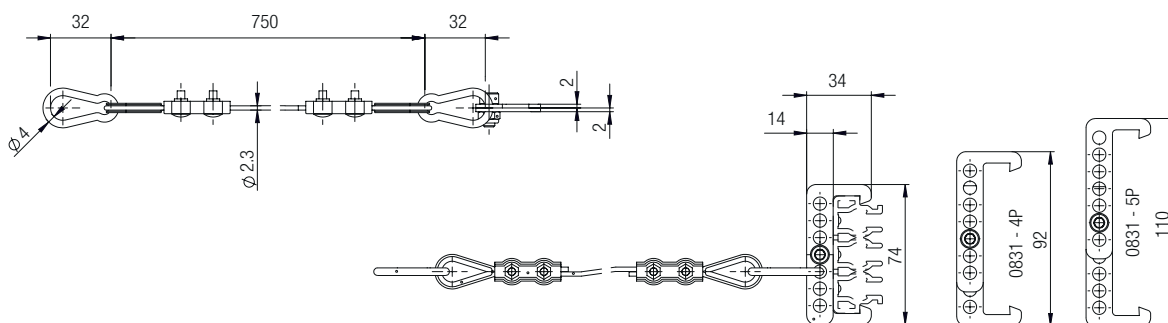
Part No.	Poles	Max. Support Spacing [mm]	B [mm]	Weight [kg]
083143-3*	3	1000	72.5	0.023
083143-4*	4		90.5	0.025
083143-5*	5		108.5	0.028

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



Part 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

Safety gear for horizontal installation and installation height > 3 m



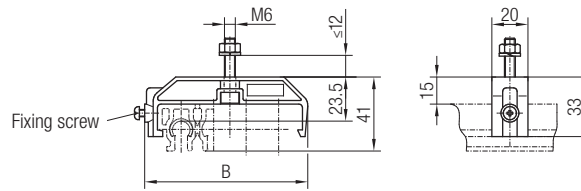
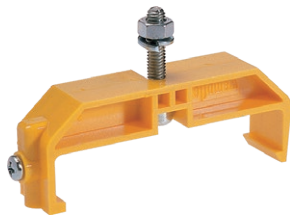
Note

The safety rope is attached to the substructure. It serves as a collecting protection of the conductor line eg in the telegrams based with a forklift or other influences such as chemical damage to the holder. The safety cable prevents the full system crash. For vertical installation, please contact us.

Part No.	Poles	Quantity per System	B [mm]	Weight [kg]
08-S280-0613	3-5	every second rail	74-110	0.07

Anchor Clamps

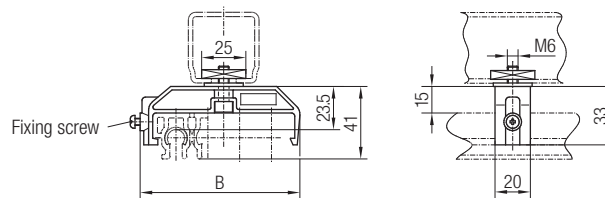
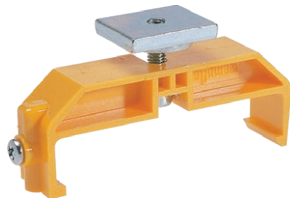
For Conductor Rail Snap-in and Fixation with Steel Nut (083133-...)



Part 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

* Standard range

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



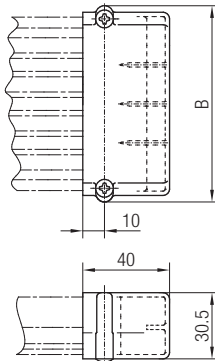
Part No.	Poles	B [mm]	Weight [kg]
083135-3	3	72.5	0.057
083135-4	4	90.5	0.060
083135-5	5	108.5	0.063

Note

The color coding of the fixed points allowed in a simple server failure detection system and strain concept. Installation position in the vicinity of the feed, unless otherwise stated in the project design.

End Caps

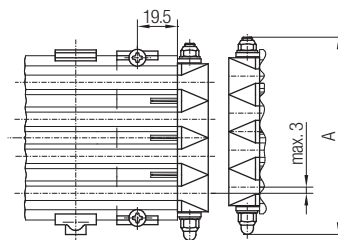
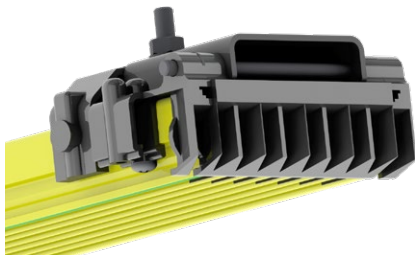
For System Ends (083171-...)



Part 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

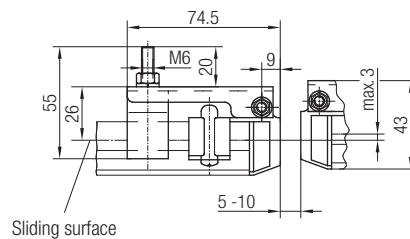
* Standard range

For Transfer Points (083172-...)



Technical details

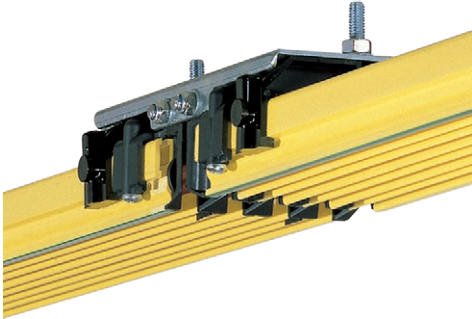
- The end cap for transfer points centres the current collector and compensates horizontal and vertical deflections of max. ± 3 mm.
- Not usable in combination with current collector 083102



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

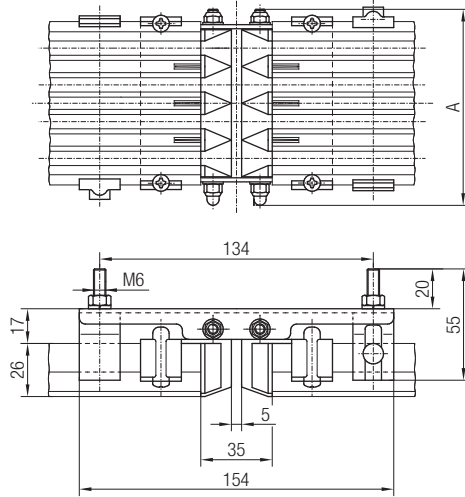
Air Gap Insulating Sections Pick-up Guides

Air Gap Insulating Sections (083195-...)



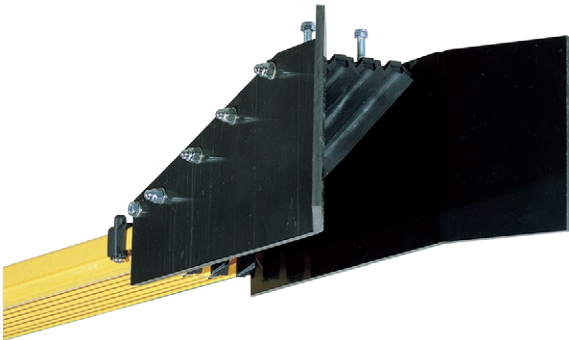
Technical details

- Not usable in combination with current collector 083102



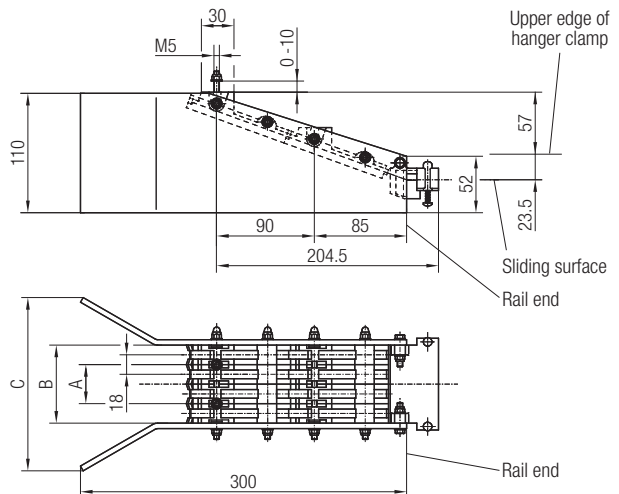
Part No.	Poles	A [mm]	Weight [kg]
083195-3	3	77	0.342
083195-4	4	95	0.418
083195-5	5	113	0.494

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.



Guides: to be fixed to the substructure and represent a fixed point. A „floating“ use is not recommended.

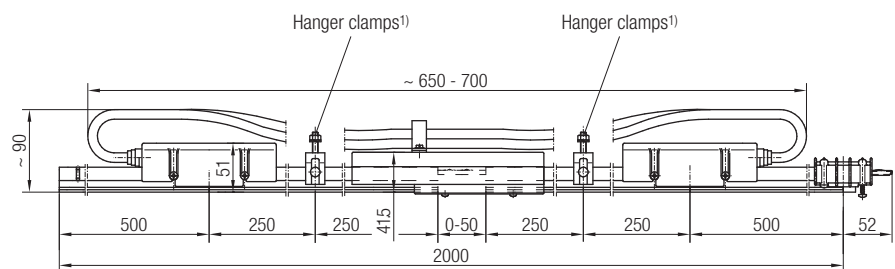
Part No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
083181-3x25	3	18	54	142	0.160
083181-4x25	4	36	72	160	0.200
083181-5x25	5	54	90	178	0.240

Expansion Element

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



Note
Copper-Expansion Element can be used for all copper and steel conductor rails. Maximum permissible continuous emf 98 A.



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

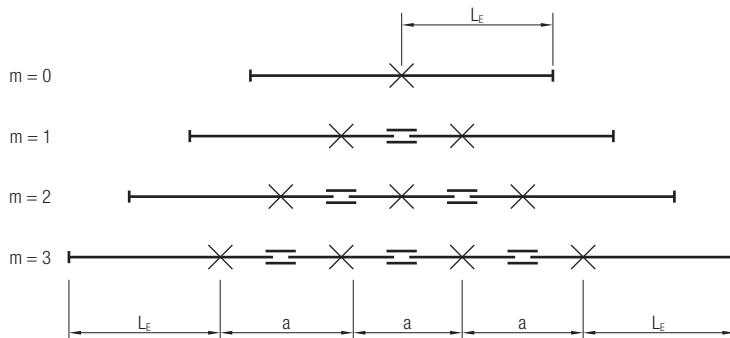
Expansion Elements with PE Part No.	without PE Part No.	Poles	Material	Weight [kg]
083161-2x6372	083161-2x6371	3	Copper	5.610
083161-2x6472	083161-2x6471	4		7.480
083161-2x6572	083161-2x6571	5		9.350
083161-2x2382	083161-2x2381	3	Datametal	2.810
083161-2x2482	083161-2x2481	4		3.720
083161-2x2582	083161-2x2581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

See hints page 14 (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 25).

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

Expansion Element

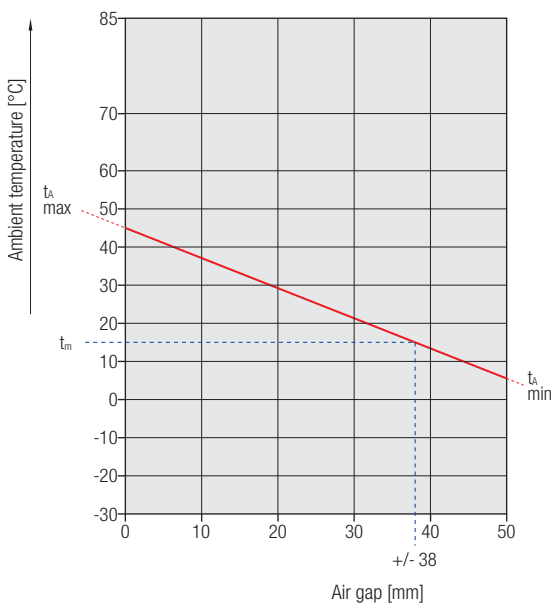
Determination Quantity of Expansion Elements

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.



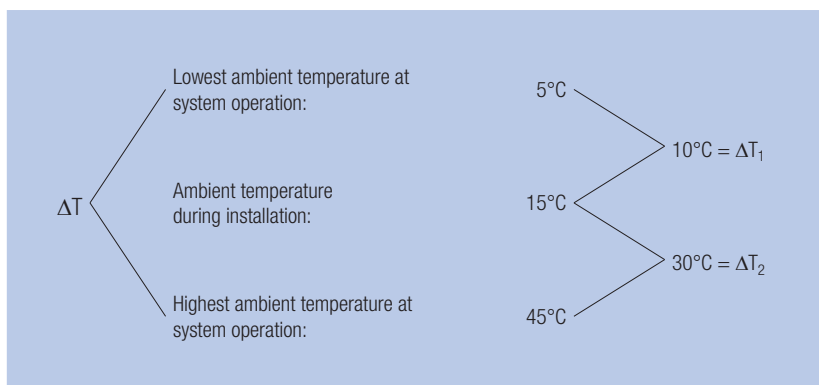
How to use the diagram (Example below):

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



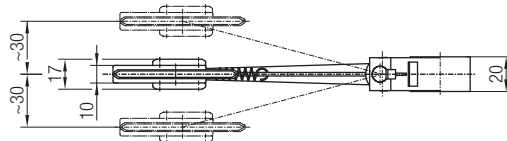
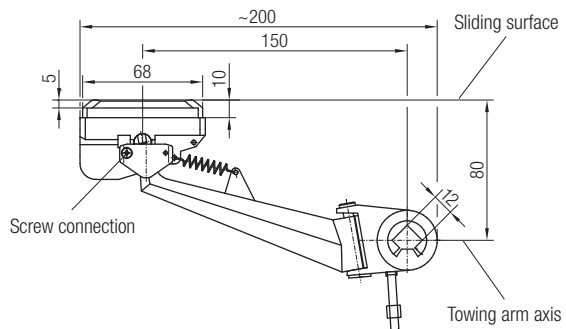
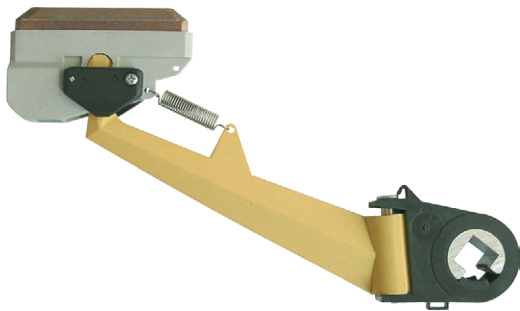
Air gap read from diagram: ~38 mm

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

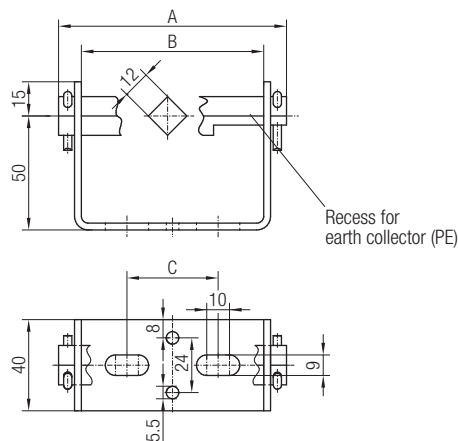
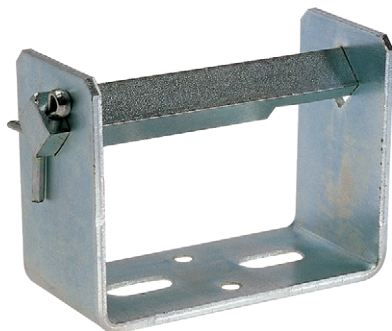
- Collector shoe material: copper graphite
- Max. wearing height: 5 mm
- Contact pressure: 5 N
- Deflection (horizontal/vertical): ± 30 mm
- Assembly tolerances below ± 10 mm recommended
- Connection cables (highly flexible) to be ordered separately (see page 17)
- The current collectors are not for use with program 0811!
- Do not use in combination with air gap insulation 083195 and transfer points 083172

Type	with Phase (PH) Part No.	with Earth (PE) Part No.	I max. ¹⁾ [A]	Weight [kg]
Current Collector	083102-0021*	083102-0022	54	0.120
Current Collector for Transfer Points	083102-3021*	083102-3022	54	0.125

* Standard range

¹⁾ Depending on cross section and type of connection cable; limit 54 A

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

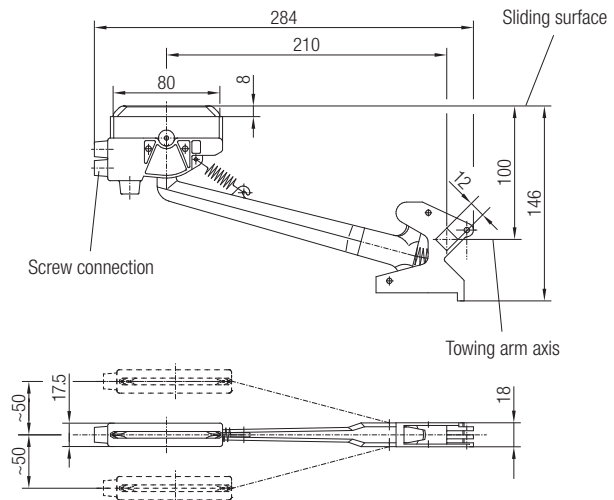
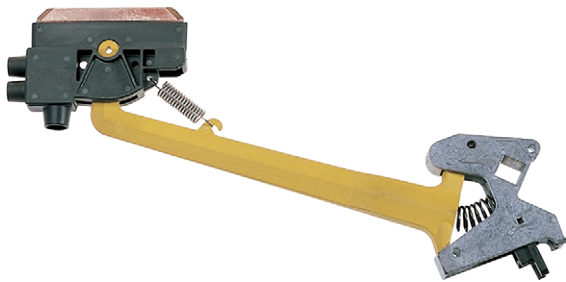


Part No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
081050-20x3*	3	80	60	30	0.300
081050-20x4*	4	100	80	40	0.370
081050-20x5*	5	120	100	50	0.440

* Standard range

Current Collectors and Accessories

Current Collectors 083106-...



Technical details

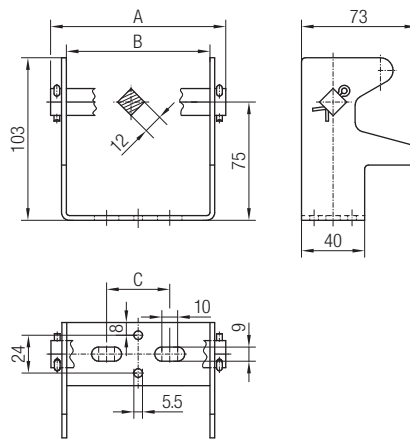
- Collector shoe material: copper graphite
- Max. wearing height: 8 mm
- Contact pressure: 10 N
- Deflection (horizontal/vertical): ± 50 mm
- Assembly tolerances below ± 10 mm recommended
- Connection cables (highly flexible) to be ordered separately (see page 17)
- The current collectors can also be used for transfer points

Current collectors with		I max. ¹⁾ [A]	Weight [kg]
Phase (PH) Part No.	Earth (PE) Part No.		
083106-0021*	083106-0022*	80	0.270

* Standard range

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

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

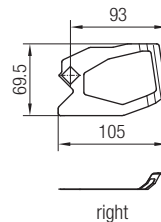
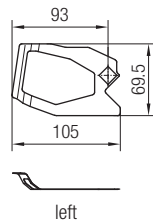
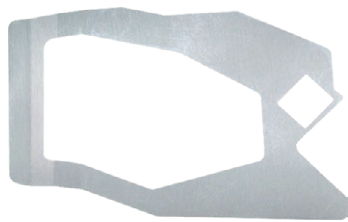


Part No.	Poles	A [mm]	B [mm]	C [mm]	Weight [kg]
083050-18x3*	3	74	55.0	30	0.300
083050-18x4*	4	92	73.0	40	0.370
083050-18x5*	5	110	91.5	50	0.440

* Standard range

Current Collectors and Accessories

Support Spring Plates 08-F030-...

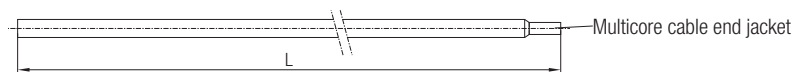


Technical details

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

Part 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 [mm ²]	Phase (PH) Part No.	Connection Cable with Earth (PE) Part 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	32	
4	081109-1x4x11	081109-1x4x32	1	0.037	5	42	
6	081109-1x6x11	081109-1x6x32	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	32	
4	081109-2x4x11*	081109-2x4x32*	2	0.037	5	42	
6	081109-2x6x11*	081109-2x6x32*	2	0.056	6	54	

* Standard range (SAP KONFIG 3126191)

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 0298-4:2013-06 Tab.11.

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



Cross Section [mm ²]	Phase (PH) Part No.	Connection Cable with Earth (PE) Part No.	Length ¹⁾ [m]	Weight [kg/m]	Cable Diameter [mm]	I at 100% Duty Cycle [A]	Use for
10	081109-1x10x91	081109-1x10x92	1	0.098	7	73	083106-... 083107-...
16	081209-1x16x81	081209-1x16x82	1	0.156	10	98	
10	081109-2x10x91*	081109-2x10x92	2	0.098	7	73	
16	081209-2x16x81*	081209-2x16x82	2	0.156	10	98	

* Standard range (SAP KONFIG 3126191)

¹⁾ Intermediate lengths are available

Please note:

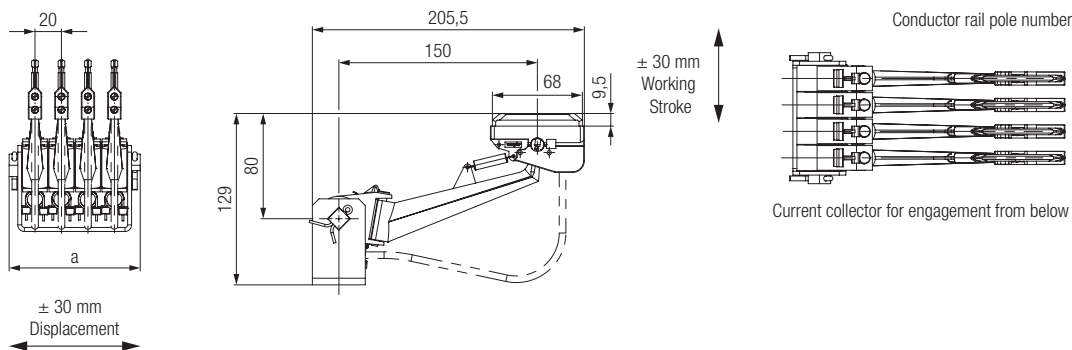
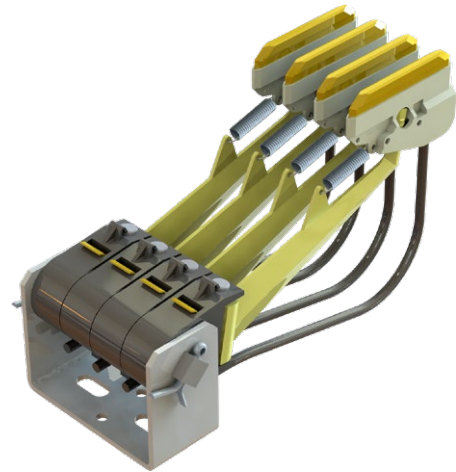
The connection cable is highly flexible and double insulated and must be ordered in the required length and size. Amperage for single-core cables installed free in air according to DIN VDE 0298-4:2013-06 Tab.11.

Current Collector Units and Accessories

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:
54A with 6 mm² connection cable at 100% duty cycle
34A with 2.5 mm² connection cable at 100% duty cycle
- Deflection (horizontal/vertical): ±30 mm
- Assembly tolerances below ±10 mm recommended
- **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 part no. for the complementary units are required due to PE-orientation. Please contact sales dpt.



Current Collector Units	Number of Poles	Pole distance a [mm]	Variant	Standard (side and bottom engagement)	For vehicle crossing (side and bottom engagement)
without connection cable with PE	3	79	S1	083103-031520-00,0X0-2	083103-034520-00,0X0-2
			S2	083103-030520-00,0X0-2	083103-033520-00,0X0-2
	4	99	S1	083103-041520-00,0X0-2	083103-044520-00,0X0-2
			S2	083103-040520-00,0X0-2	083103-043520-00,0X0-2
	5	119	S1	083103-051520-00,0X0-2	083103-054520-00,0X0-2
			S2	083103-050520-00,0X0-2	083103-053520-00,0X0-2
without connection cable without PE	3	79	S1	083103-031020-00,0X0-1	083103-044020-00,0X0-2
			S2		
	4	99	S1	083103-041020-00,0X0-1	083103-044020-00,0X0-2
			S2		
	5	119	S1	083103-051020-00,0X0-1	083103-054020-00,0X0-2
			S2		

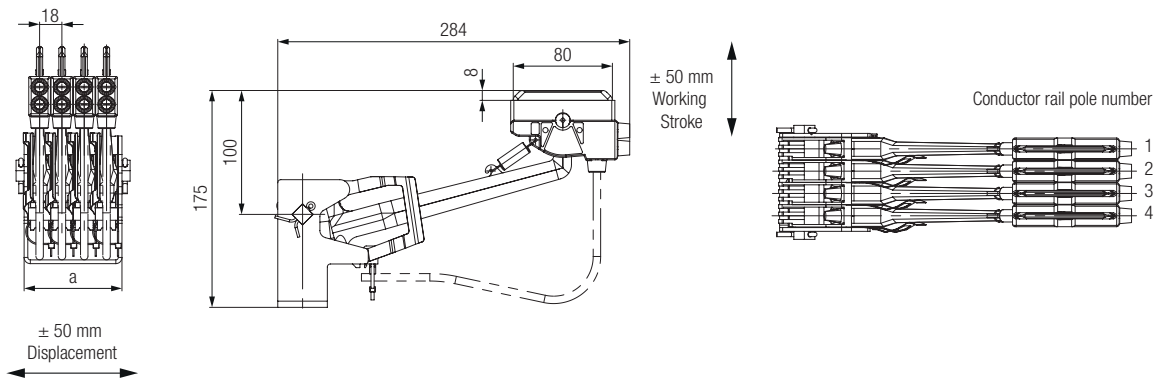
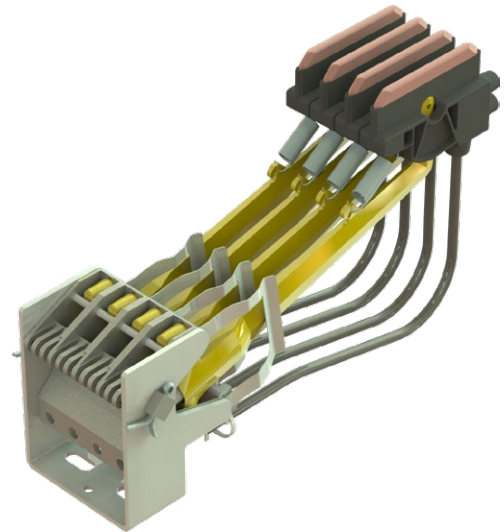
Different connection lengths and configurations via configurator (**SAP KONFIG 3187375**)

Current collector Units and Accessories

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: 10N
- 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 17)
- **The current collector units can ISO be used for „pick-up guides for transfer points“**
- **Other connection cable cross sections on request**
- To arrange above as double-current-collectors separate part no. for the complementary units are required due to PE-orientation. Please contact sales dpt.

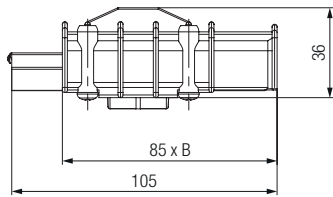


Current Collector Units	Number of Poles	Pole distance a [mm]	Variant	For vehicle crossing (intervention from below)	For vehicle crossing (lateral intervention)
without connection cable with PE	3	79	S1	083107-031520-00,0X0-2	083107-036520-00,0X0-2
			S2	083107-030520-00,0X0-2	083107-037520-00,0X0-2
	4	99	S1	083107-041520-00,0X0-2	083107-046520-00,0X0-2
			S2	083107-040520-00,0X0-2	083107-047520-00,0X0-2
	5	119	S1	083107-051520-00,0X0-2	083107-056520-00,0X0-2
			S2	083107-050520-00,0X0-2	083107-057520-00,0X0-2
without connection cable without PE	3	79	S1	083107-031020-00,0X0-1	083107-036020-00,0X0-1
			S2	083107-030020-00,0X0-1	083107-037020-00,0X0-1
	4	99	S1	083107-041020-00,0X0-1	083107-046020-00,0X0-1
			S2	083107-040020-00,0X0-1	083107-047020-00,0X0-1
	5	119	S1	083107-051020-00,0X0-1	083107-056020-00,0X0-1
			S2	083107-050020-00,0X0-1	083107-057020-00,0X0-1

Different connection lengths and configurations via configurator (SAP KONFIG 3192589)

Wearing and Spare Parts

Rail Connectors (083121-...)

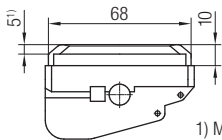


Technical details

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

Steel and Datametal Rail Part No.	Copper Rail Part 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

Current Collector Head 55 A (083002-...)



1) Max. wearing height

Technical details

- Not interchangeable with collector shoes program 0811

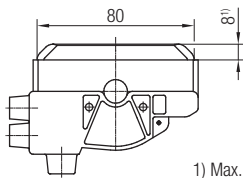
Note:

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

* Standard Range

Current Collector Head 80 A (081001-...)

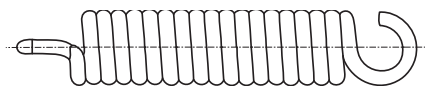


1) Max. wearing height

Collector Shoes with Phase (PH) Part No.	with Earth (PE) Part 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

* Standard Range

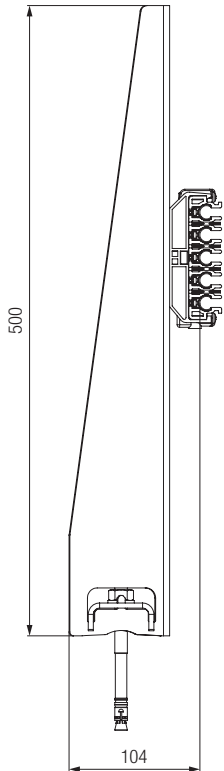
Stabilizing Springs for Current Collector Head (RZ-...)



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

Accessories Bracket

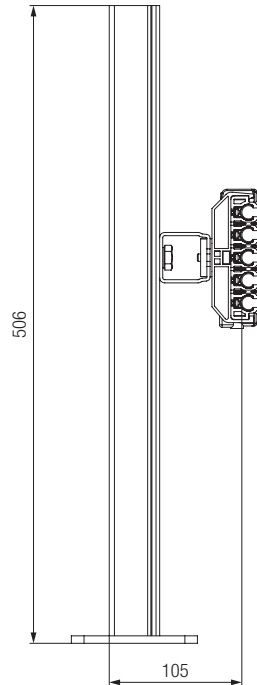
Directly to console



Configurable console with C-rail transverse

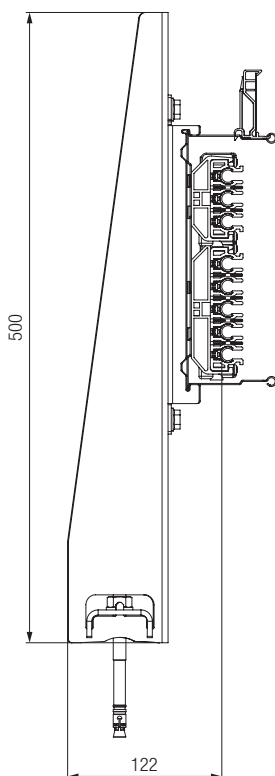
- Console ProShell incl. dowels
- track support bracket 0831 with hexagon nut
- Suspension distance up to 1 m
- See also catalogue ProShell KAT0800-0003

With C-rail 240 crosswise



- Configurable console
- 2 x dowels 04-41001
- C-Rails Type 240 crosswise
- Fastener 020176-10X20P
- track support bracket 0831 with hexagon nut
- Suspension distance up to 3 m
- **Order number: 3198155**
- See also catalogue C-Rails KAT0240-0003

In ProShell

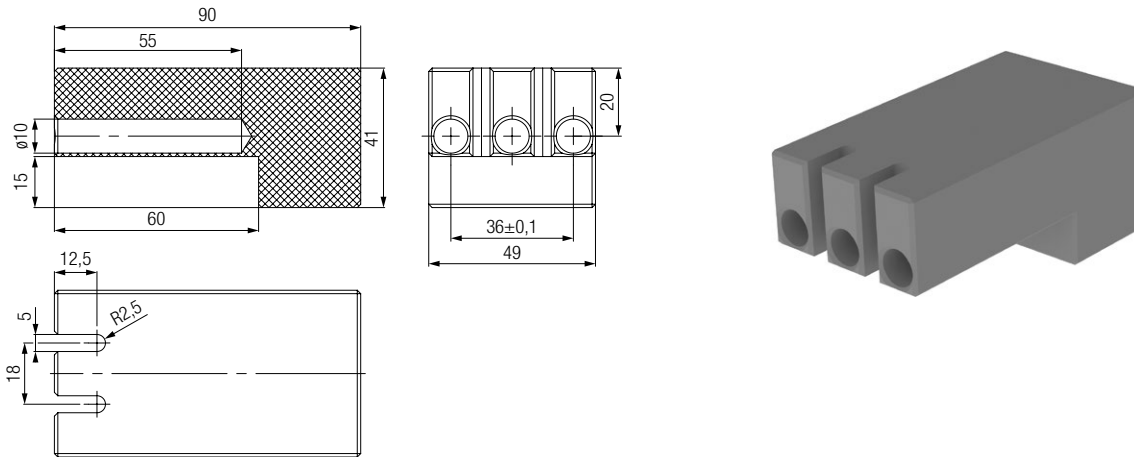


- In ProShell 128 or 206
- Console ProShell incl. dowels
- Track support bracket ProShell
- Suspension distance up to 3,2 m
- See also catalogue ProShell KAT0800-0003

Mounting Accessories

Tool for easy assembly of 0831

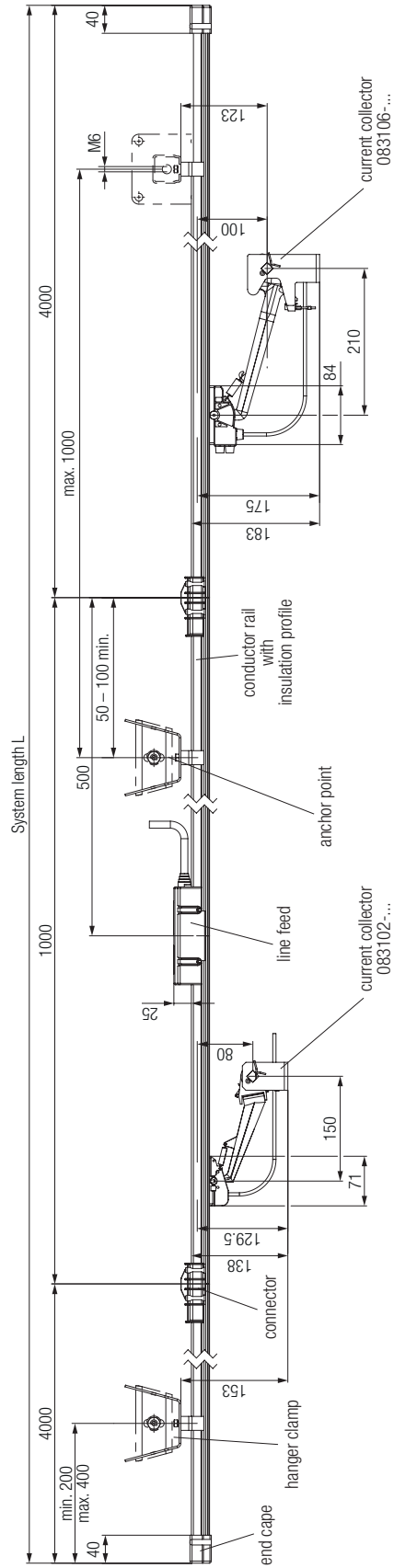
Assembly tool/knocking block for jointing the rail connection



Designation	Pole	Order number
Mounting block 3-pole	3	08-V015-0492-003
Mounting block 4-pole	4	08-V015-0492-004
Mounting block 5-pole	5	08-V015-0492-005

Arrangement Examples


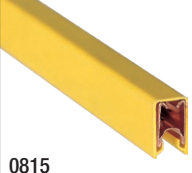
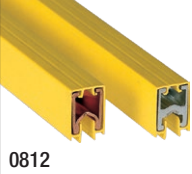



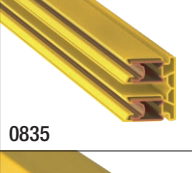
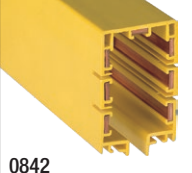
System Sketch



Only fine-stranded, highly flexible cables are to be used as connection cables. The cables are to be laid without directional force and must not hang in. Bundling or additional fixing to the arm is not permitted.

Program Overview

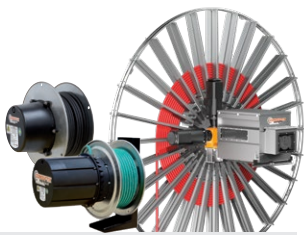
Conductor Rails

	Program	Nominal Current ¹⁾	Voltage Grade	Support Spacing	Rail Length	Outside-Dimensions
Single Pole Insulated Conductor Rail	 0811	10-100 A	500 V	0.4-1.0 m	4 m	14.7 x 15.5 mm
	 0815	100 A	500 V	0.5 m	4 m	9.6 x 15.2 mm
	 0812	25-400 A	690 V	1,5 m (3.2 m) ¹⁾	4 m	18 x 26 mm
	 0813	200-1250 A	690 V	2.5 m	5 m	32 x 42 mm
Multipole Conductor Rail	 0831	10-125 A (140 A at 80% duty cycle)	500 V	1 m (3,2 m) ¹⁾	4 m	3-pole: 26 x 62 mm 4-pole: 26 x 80 mm 5-pole: 26 x 98 mm
	 0832	25-200 A (200 A at 80% duty cycle)	690 V	3.2 m	4 m	4-pole 200 x 50 mm
	 0835	Complete system: 32 A Rail system: 100 A	AC Voltage: 230/400 V AC Earth/Low voltage: min. 24 up to 48 V DC/AC	0.8 m	4 m	196 x 48 mm (incl. System support 220 x 50 mm)
Enclosed Conductor Rail	 0842	35-140 (160 A at 80% duty cycle)	690 V (4/5 pole) 400 V (7 pole)	2 m	4 m	56 x 90 mm

¹⁾ 3.2 m in combination with support structure ProShell

Your Applications – our Solutions

The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler systems can prove advantageous. You can count on Conductix-Wampfler for hands-on engineering support together with the optimum solution to safely meet your needs.



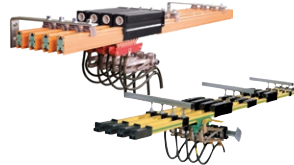
Cable and Hose Reels

Motor driven and spring driven reels by Conductix-Wampfler provide energy, data and media over a variety of distances, in all directions, fast and safe.



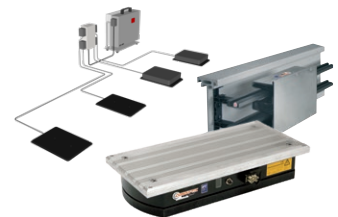
Festoon Systems

Conductix-Wampfler cable trolleys can be used in virtually every industrial application. They are reliable, robust and available in an enormous variety of dimensions and designs.



Conductor Rails

Available as enclosed or multiple unipole systems, Conductix-Wampfler conductor rails reliably move people and material.



Inductive Power Transfer IPT®

The no-contact system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear. Flexible installation when used with Automated Guided Vehicles.



Non-insulated Conductor Rails

Robust, non-insulated aluminum conductor rails with stainless steel cap provide the ideal basis for power supply of people movers and transit networks.



Radio Remote Controls

Safety remote control solutions customized to meet our customer needs with modern ergonomic design.



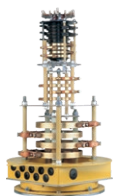
Reels, Retractors and Balancers

Available for hoses and cables, as classical reels or high-precision positioning aids for tools, we offer a complete range of reels and spring balancers.



Jib Booms

Complete with tool transporters, reels or an entire media supply system – safety and flexibility are key to the completion of difficult tasks.



Slip Ring Assemblies

Whenever things are really “moving in circles”, the proven slip ring assemblies by Conductix-Wampfler ensure the flawless transfer of energy and data. Here, everything revolves around flexibility and reliability!



Mobile Control Systems

Mobile control solutions for your plant – whether straightforward or intricate. Control and communication systems from LJU have been tried and tested in the automotive industry for decades.



ProfidAT

This data transfer system is a compact slotted waveguide and furthermore can be used as Grounding rail (PE) as well as positioning rail at the same time.

www.conductix.com

Conductix-Wampfler

has just one critical mission:

To provide you with energy and data transmission systems that will keep your operations up and running 24/7/365.

To contact your nearest sales office, please refer to:

www.conductix.contact

