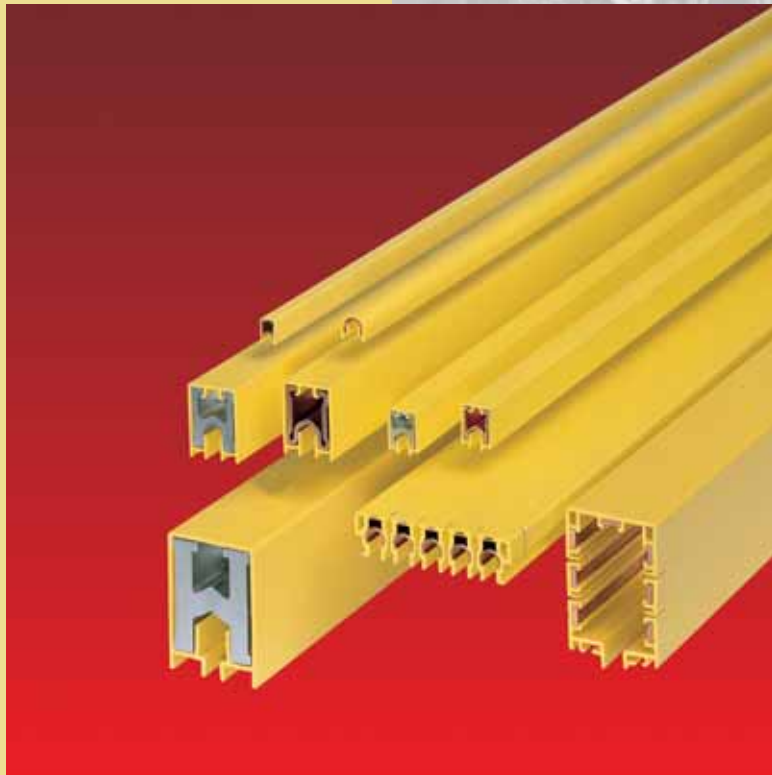


Safe and Reliable Power and Data Transmission



Conductor Rail Systems

Single Pole Insulated Conductor Rails



Program 812

Main Applications:
mid-size cranes, people mover systems, amusement attractions, special machinery

Design:

- the aluminium rail has a patented stainless steel sliding surface
- single pole hanger clamps as standard for universal installation or multipole compact hanger clamps for straight track configurations
- de-icing systems available

Operating Conditions:
indoor and outdoor operations

Track Configuration: straight or curved

Type		081217	081211	081212	
Nominal Current	[A]	25	80	140	
Impedance ¹⁾	[Ω/m]	0.011637	0.002190	0.00149	
Material		Stainless Steel	Galvanized Steel		

Type		081213	081214	081215	081216
Nominal Current	[A]	200	320	250	400
Impedance ¹⁾	[Ω/m]	0.000377	0.000306	0.000321	0.000217
Material		Aluminium		Copper	

1) at 50 mm rail spacing



Program 813

Main Applications:
heavy cranes, people mover systems, special machinery

Design:

- the aluminium rail has a patented stainless steel sliding surface
- single pole hanger clamps for universal installation
- de-icing systems available

Operating Conditions:
indoor and outdoor operations

Track Configuration: straight or curved

Type		081313	081314	081319	
Nominal Current	[A]	500	800	1000	
Impedance ¹⁾	[Ω/m]	0.000157	0.000144	0.000137	
Material			Aluminium		

Type		081315	081316	081317	
Nominal Current	[A]	500	800	1250	
Impedance ¹⁾	[Ω/m]	0.000161	0.000136	0.000127	
Material			Copper		

1) at 80 mm rail spacing

Enclosed and Multipole Conductor Rails



Program 842

Type	084210-...			084211-...	
Rail System	Continuous strip			Plug-in-type	
Nominal Current [A]	35	60	100	35	60
Impedance [W/m]	0.0021	0.0012	0.0008	0.0021	0.0012
Material	Copper				

Type	084213-...		084212-...	
Rail System	Bolted type, angle clamping		Bolted type, joint clamping	
Nominal Current [A]	35	60	100	140
Impedance [Ω/m]	0.0021	0.0012	0.0008	0.0004
Material	Copper			

Main Applications:

cranes, electrified overhead monorails, automated storage and retrieval systems, tasksaver systems

Design:

- 5 or 7-poles
- individual number of poles on request
- various connecting systems to suit installation and operating conditions

Operating Conditions:

indoor and outdoor operations

Track Configuration:

straight or curved



Program 831

Type	083118	083112	083115	083116	083117
Nom. Current [A]	10	32	60	100	125
Impedance [Ω/m]	0.029314	0.005507	0.001185	0.000750	0.000548
Material	Datametal	Galv. Steel	Copper		

Main Applications:

cranes, automated storage and retrieval systems

Design:

- 3, 4 or 5-poles
- Conductor rail amperages can be mixed
- pre-manufactured plug-in connectors for easy installation

Operating Conditions:

indoor and protected outdoor operations

Track Configuration: straight

Wampfler Conductor Rail Overview:

System Designs		Enclosed Cond. Rail	Multipole Cond. Rail	Single Pole Insulated Conductor Rail			
Conductor Rail System		Progr. 842	Progr. 831	Progr. 815	Progr. 811	Progr. 812	Progr. 813
Nominal Current ¹⁾	[A]	35 -140 ³⁾	10-125 ⁴⁾	100	10-100	25-400	200-1250
Voltage Grade	[V]	600	500	500	500	660	660
Support Spacing	[m]	2	1	0.5	0.4-1.0	1.5	2,5
Rail Length ²⁾	[mm]	4000	4000	4000	4000	4000	5000
Outside-Dimensions	[mm]	5-pol.: 7-pol.: 56 x 90	3-pol.: 26 x 62 4-pol.: 26 x 80 5-pol.: 26 x 98	9.6 x 15.2	14.7 x 15.5	18 x 26	32 x 42

1) at 100% duty cycle and 35°C;

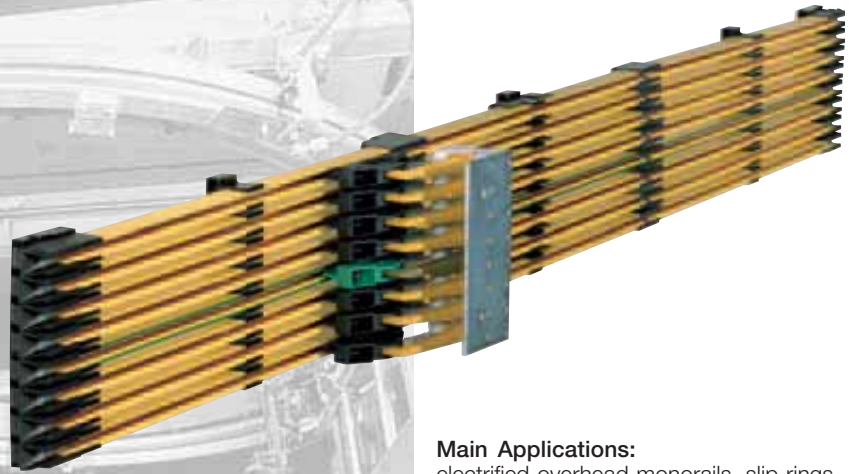
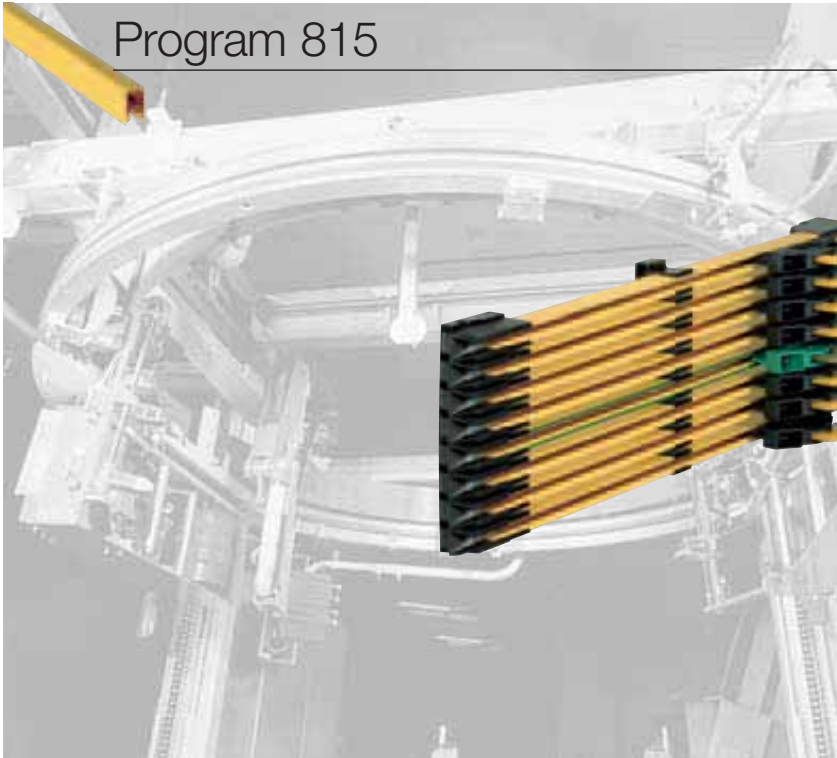
2) Standard;

3) 160 Amps at 80% duty cycle;

4) 140 Amps at 80% duty cycle

Single Pole Insulated Conductor Rails

Program 815



Main Applications:

electrified overhead monorails, slip rings

Design:

- highly compact system with a pole/phase spacing of either 12 or 14 mm
- snap-in and screw-fixed hanger clamps for efficient and universal installation on beam structures

Operating Conditions:

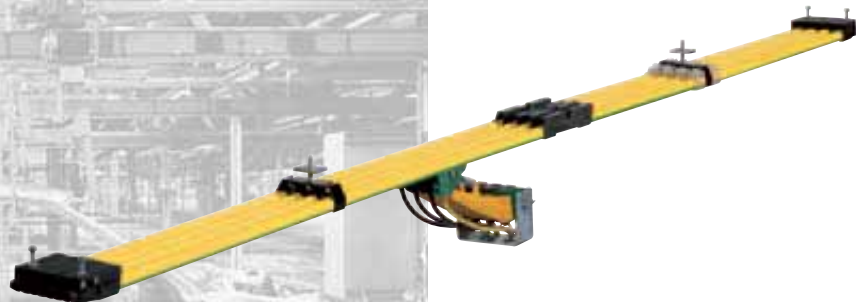
indoor operations

Track Configuration:

straight or curved

Type		081512	081516
Nominal Current	[A]	32	100
Impedance at 12 mm rail spacing	[Ω/m]	0.00521	0.000747
Impedance at 14 mm rail spacing	[Ω/m]	0.00522	0.000748
Material		Galv. Steel	Copper

Program 811



Main Applications:

cranes, electrified overhead monorails, automated storage and retrieval systems, slip rings, special machinery

Design:

hanger clamps for universal installation

Operating Conditions:

indoor and protected outdoor operations

Track Configuration:

straight or curved

Type		081118	081112	081116
Nominal Current	[A]	10	32	100
Impedance at 20 mm rail spacing	[Ω/m]	0.029314	0.005507	0.000750
Material		Datametal	Galv. Steel	Copper

Conductor Rail Product Offering



Conductor rails provide a safe and economical supply of electrical power and communication for track-guided mobile machinery. Wampfler conductor rail systems are used throughout the world in various material handling and transport systems, in the most demanding of applications.

Among those are:

- overhead cranes
- smart monorails and people movers
- automated storage and retrieval systems
- amusement rides and attractions
- slip rings
- workstation and diagnostic equipment
- special machinery including: shrink wrappers and elevators

Wampfler insulated conductor rails are available as single pole, multipole and enclosed systems. They fulfill the requirements of the latest international standards (IEC, EN). All are safe to the touch and designed finger-proof (IP23). Current capacities range from 10 to 2,000 amps rated at 100% duty cycle and a nominal voltage of up to 660 V. Rail materials may be of stainless steel, galvanized steel, copper and aluminium with our patented stainless steel wear strip. For special applications, a line of proven uninsulated conductor rails is available.

Wampfler conductor rails can be supplied with any number of poles and are quick and easy to install in horizontal and vertical orientation. They can be supplied with normal hardware or stainless steel for those more corrosive environments.

What sets Wampfler conductor rails apart from other conductor rails are (1) its thermal glide design which allows the dissimilar materials of the systems to expand and contract freely during environmental temperature changes thereby eliminating the normal waviness and problems associated with conductor rail systems; and (2) rail connectors. Our rail connectors are of the best in the industry and designed to provide a high degree of mechanical strength while insuring a good electrical connection. Both of these two key features has allowed Wampfler to become the recognized leader in the conductor rail industry. In addition, to providing an excellent conductor rail to supply electrical power, Wampfler's conductor rail design also provides unsurpassed data and communication transmission in most installations. Longer installations or more environmentally demanding applications can be handled with the aide of our POWERTRANS® units and/or Datametal rails for digital communication.



Wampfler conductor rails are provided with insulation materials capable of the following temperature ranges:

- -30°C (-22°F) to +55°C (+131°F) for standard systems.
- -30°C (-22°F) to +85°C (+185°F) for heat resistant systems.

For low temperature applications where ice building may be a consideration, Wampfler can supply both single and dual stage deicing systems.

Within each Wampfler conductor rail category, several current collector units are available each of which provide multi-axis degrees of movement thereby allowing compensation for normal installation variances and machine motion tolerances. These will ensure uninterrupted power and data transfer while reducing collector shoe wear to a minimum. Checking shoe wear is also easy, as Wampfler can supply shoe wear indicator monitoring devices which provide constant go/no-go feedback of collector shoe wear – automatically!

Wampfler's standard collectors are designed to operate at travelling speeds up to 10 m/sec. Collectors to operate at faster speeds are available upon request.

Earth collector heads are distinctively coloured green and earth conductor rails have a distinctive green stripe to designate them as such. Furthermore, design of the earth collector is such so as to make it the first to make contact when a multipole collector arrangement comes into contact with the conductor rail, and the last to break contact when the multipole collector arrangement is removed from the conductor rail.

Pictures

1. Curved system for hoist, using enclosed conductor rails (progr. 842)
2. Harbour crane with conductor rails (progr. 814)
3. Water purifying plant with conductor rails (progr. 812) for energy and data supply
4. Passenger monorail with conductor rails (progr. 813)
5. Electric overhead monorail (progr. 815) trolley on the way to the high bay storage
6. Film packing machine with slip rings (progr. 815)
7. Electric overhead trolley with conductor rail (progr. 811) on a car assembly line

Your Applications – our Solutions

Conductor Rail Systems by Wampfler are but one component of the wide range of the Wampfler energy, data and media supply systems. The right solution for your application always ensues from the wholly specific application at hand. And many times, it is precisely the combination of several Wampfler systems that will render very convincing benefits. You can find consulting and engineering competence in our companies and subsidiaries worldwide - just like our solutions!



Festoon systems

It's hard to imagine Wampfler cable trolleys not being used in virtually every industrial application: They're reliable and robust in an enormous variety of dimensions and designs

Cable reels

Motorized reels and spring cable reels by Wampfler hold their own wherever energy, data and media have to cover the most diverse distances within a short amount of time - in all directions, fast and safe.

Slip ring bodies

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

Conductor rails

Whether they're enclosed conductor rails or expandable single-pole systems, the proven conductor rails by Wampfler reliably move people and material.

Energy guiding chains

The „Jack of all trades“ when it comes to transferring energy, data and media. With their wide range, these energy guiding chains hold their own in industrial applications.

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.