

Entertainment Technology Energy and Data Transmission

CONDUCTIX
wampfler

Ⓞ DELACHAUX GROUP



“Out of Sight O

When Your Event Must Go On

Today, more than ever, successful operations of performing arts centers, houses of worship, sporting events, and other stage venues rely on state-of-the-art energy and data management technology.

An essential aspect of modern stage systems is the dynamic interplay between individual components and parts. Spotlights on lighting bridges, speakers on media towers, video screens, and even complete areas of the stage are all in motion, being moved, directed, or lowered. At the same time, these elements need to be reliably supplied with power and data.

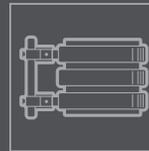
Conductix-Wampfler has been in the business of supplying innovative mobile electrification system solutions for more than 70 years. We are the specialists to call when it comes to finding the optimum energy and data transfer solutions for your stage, theater, and event applications.

As a system supplier, Conductix-Wampfler offers a comprehensive array of products appropriate to the application, including spring driven or motor driven cable reels, conductor bar systems, contactless inductive power transfer systems, slip ring assemblies, cable festoons, and cable chain. We also offer consultation, project planning, selection of the optimum cables and accessories, comprehensive logistical concepts, and on-site commissioning.

Thanks to Conductix-Wampfler systems, important data and essential power are delivered safely, reliably, and continually in venues all over the world. Anywhere you find stage machinery in motion, you will find Conductix-Wampfler's custom-engineered solutions for the flexible transmission of electric energy and data.



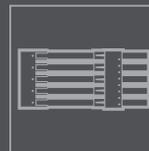
Inductive Power Transfer



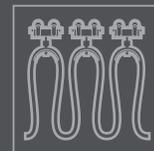
Slip Rings



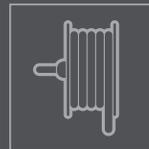
Cable Chain



Conductor Bar



Cable Festoon



**Spring Driven
Cable Reels**



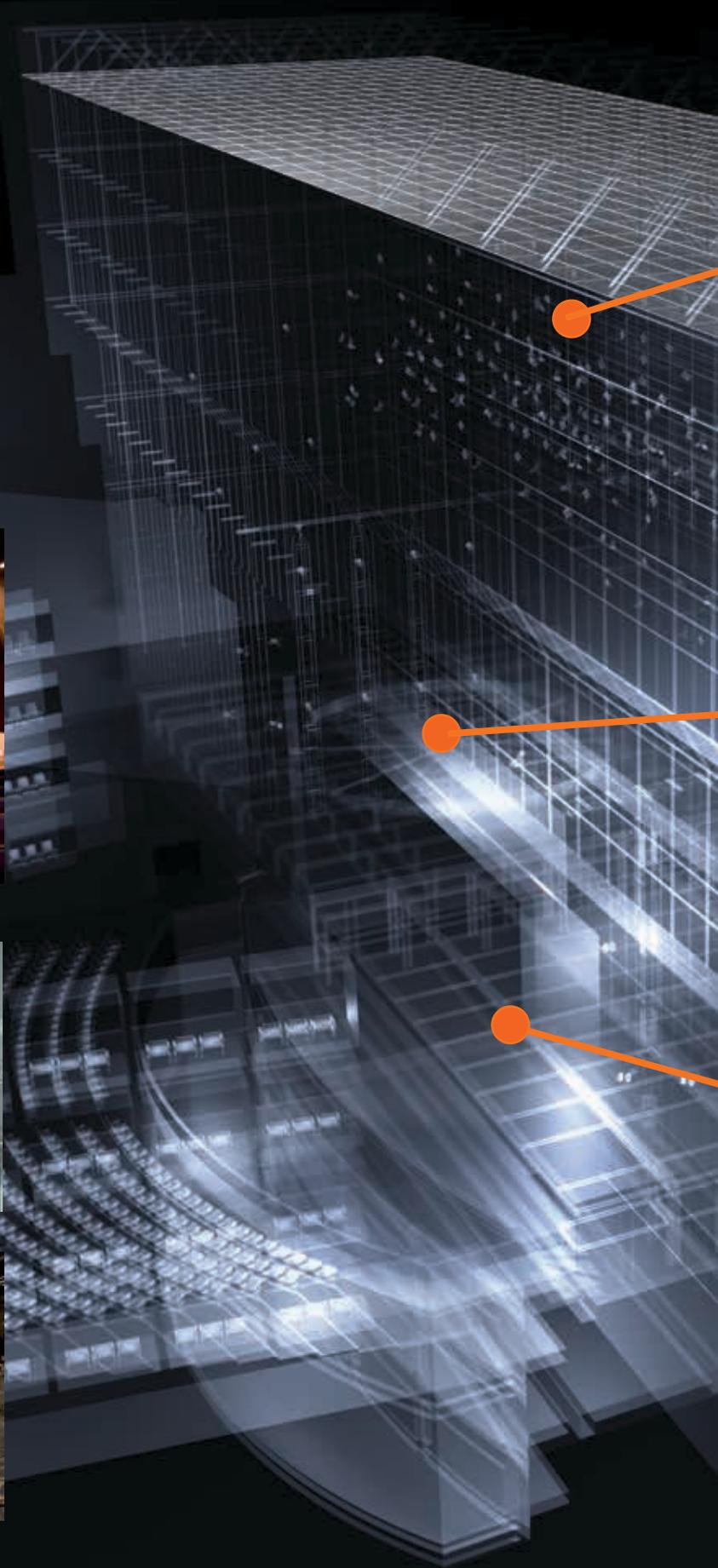
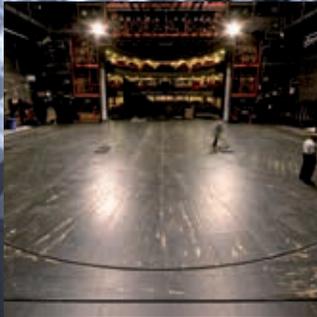
**Motor Driven
Cable Reels**

Out of Mind”



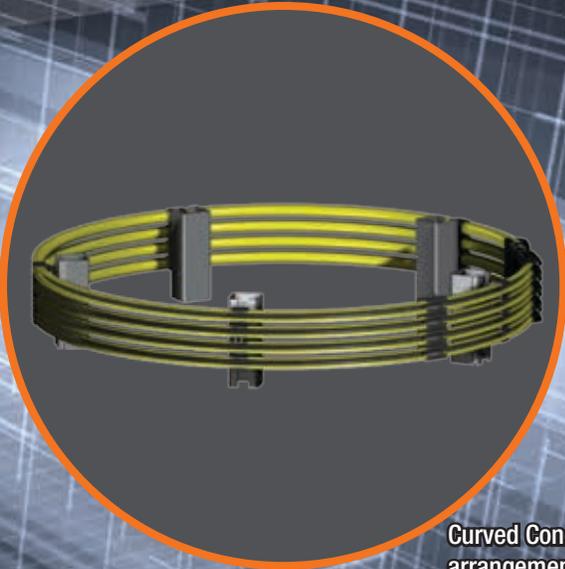
Behind the Scenes

System solutions from Conductix-Wampfler are used in practically every area of stage technology. In a typical performing arts center, for example, it is easy to see where these flexible, optimized solutions are used in both over stage and under stage machinery. Depending on the application, single products, or even combinations of multiple solutions can be used in order to meet a variety of requirements for energy and data transmission.

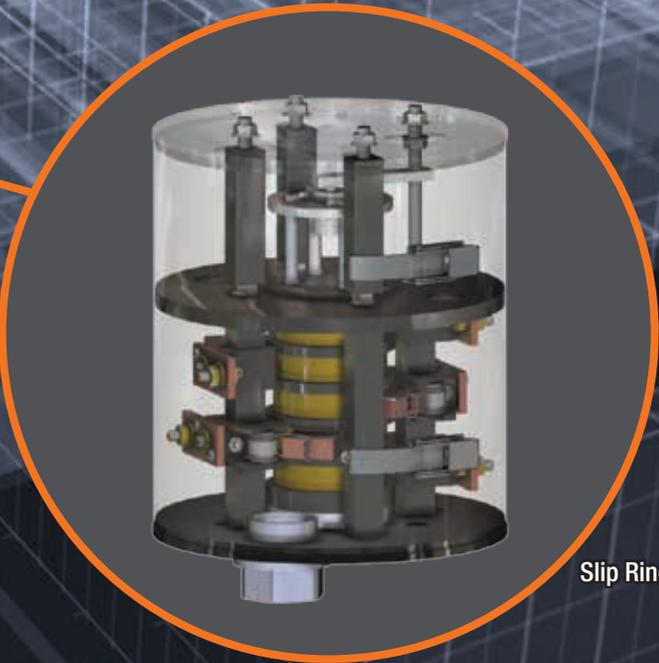




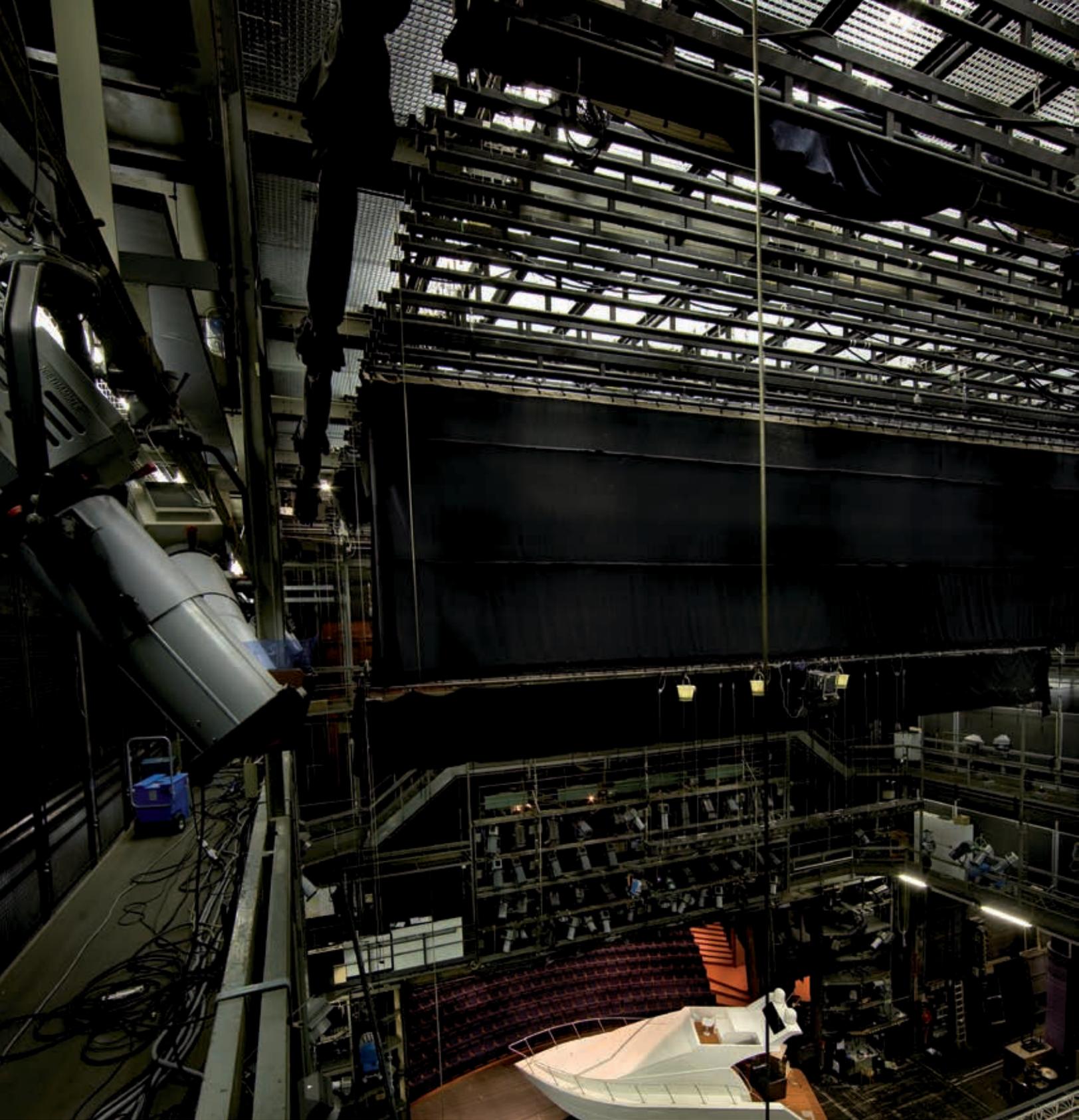
GafferReel™
Spring Driven Cable Reels



Curved Conductor Bar
arrangement



Slip Ring Assembly



Behind the scenes – Power and control for me



The Conductix-Wampfler series of **GafferReels™** delivers superior cable management solutions for theatrical, lighting, audio, or acoustical applications.

Produced in a matte black finish, GafferReels come in a variety of sizes and profiles to help keep them out of sight. Backed by more than 70 years of design and manufacturing experience, these reels will deliver years of reliable service, giving peace of mind that the show will go on!

- Built to supply power and control signals to mobile riggings, including lights, speakers, acoustic panels, chandeliers, etc
- Installations include theaters, churches, auditoriums, convention centers, museums, sports venues, and casinos
- Installation supervision available for larger projects

System advantages

- Cables no longer need to be manually managed by using our spring driven or motor driven reels.
- Transmission of DMX512, Ethernet, or fiber optics for reliable data transmission at higher data rates
- Double-brushed, silver-plated, or gold slip rings are used for sensitive applications to prevent signal degradation
- Conductix-Wampfler offers a complete line of roller guides and sheave assemblies



Slip ring cover removed



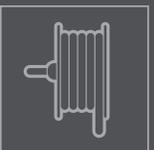
Standard Reel Sizes - Custom Configurations are also Available

Part Number	Application
MULTIREEL-14	To LIFT 60' of 12AWG / 14-conductor cable
MULTIREEL-18	To LIFT 60' of 12AWG / 18-conductor cable

Both reels include the following:

- 19-pin female receptacle and cable grip installed on active cable
- 4' feeder cord with 19-pin male plug

oving lights and sound . .





GafferReels™ for DMX and Ethernet Applications

Conductix-Wampfler engineers have developed a **GafferReel™** specifically designed for sensitive DMX applications. The DMX GafferReel features a signal slip ring, low-capacitance cable, and industry standard connectors for superior performance and ease of installation. Compact and weighing less than 25 pounds, the DMX GafferReel can be installed in any location. Like all GafferReels, DMX models come with a standard 2-year warranty and are produced with a matte black finish.

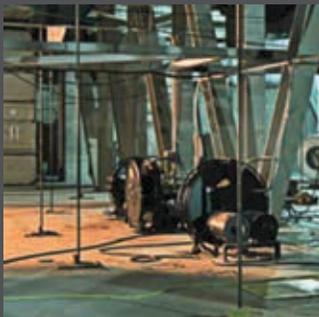
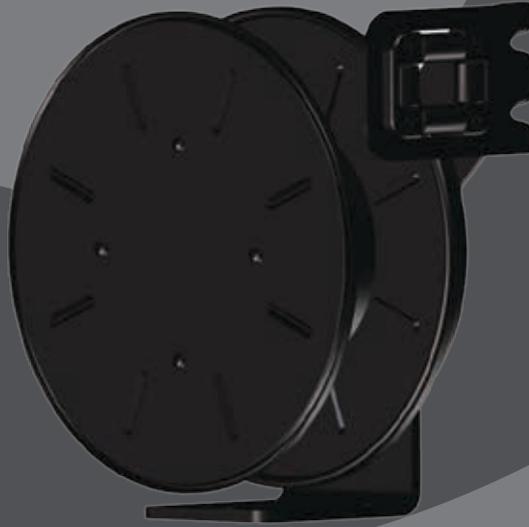
In addition to standard DMX512 cable configurations, fiber optic and Ethernet connections are also available for reliable data transmission at higher data rates

Signal slip ring features

- Gold on gold contacts to protect signal integrity
- Sealed enclosure to prevent oxidation of rings
- Grooved ring design and precision ball bearings for smooth rotation and low electrical noise

State of the art design tools

Conductix-Wampfler uses full scale modeling for fit and function prior to any manufacturing of parts. This helps to reduce lead times on new designs and modifications. Electronic drawings can be provided in any common format.



Standard sizes available:

Part Number	Application
CA14220-50	To LIFT 50' of DMX Cable
CA14220-50E	To LIFT 50' of Ethernet Cable (CAT5)
CA14220-50E6	To LIFT 50' of Ethernet Cable (CAT6)
CA14220-100	To LIFT 100' of DMX Cable
CA14220-100E	To LIFT 100' of Ethernet Cable (CAT5)
CA14220-100E6	To LIFT 100' of Ethernet Cable (CAT6)





Revolving Stages

Applications

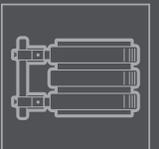
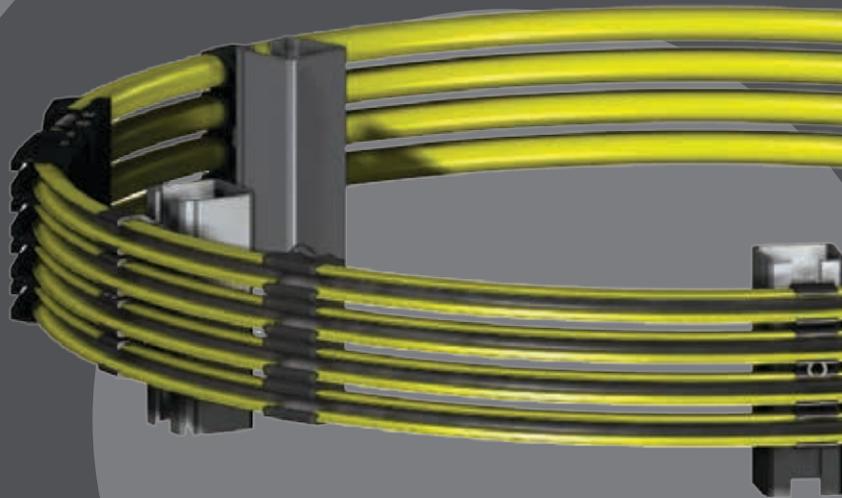
- Energy supply for lighting and junction boxes
- Transmission of audio, video, and standard bus signals

Slip Ring Assemblies

- Transmission of high power levels even when apparatus is stationary
- Reliable transmission of all current data signals (DMX, Ethernet, Profibus, CAN bus, etc.)

Curved Conductor Rails

- Ideal solution for low installation heights (using a horizontal arrangement of conductor rails)
- Solution for energy supply of independently rotating single rings
- Used for energy supply if insufficient room exists in pivot bearing area





Stage Wagons

Applications

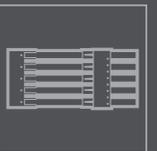
- Energy supply to stage wagon electrical systems
- Energy supply to junction boxes

Inductive Power Transfer IPT®

- Contactless power and data transmission for straight or curved applications
- Noise-free
- Wear-free
- Completely hidden from the audience

Conductor rails

- Standard sliding contact system
- Suitable for currents of up to 400 A





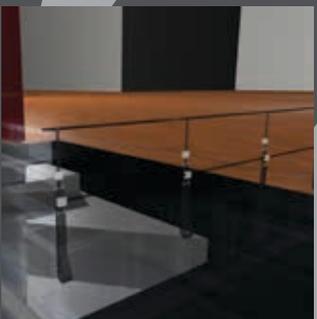
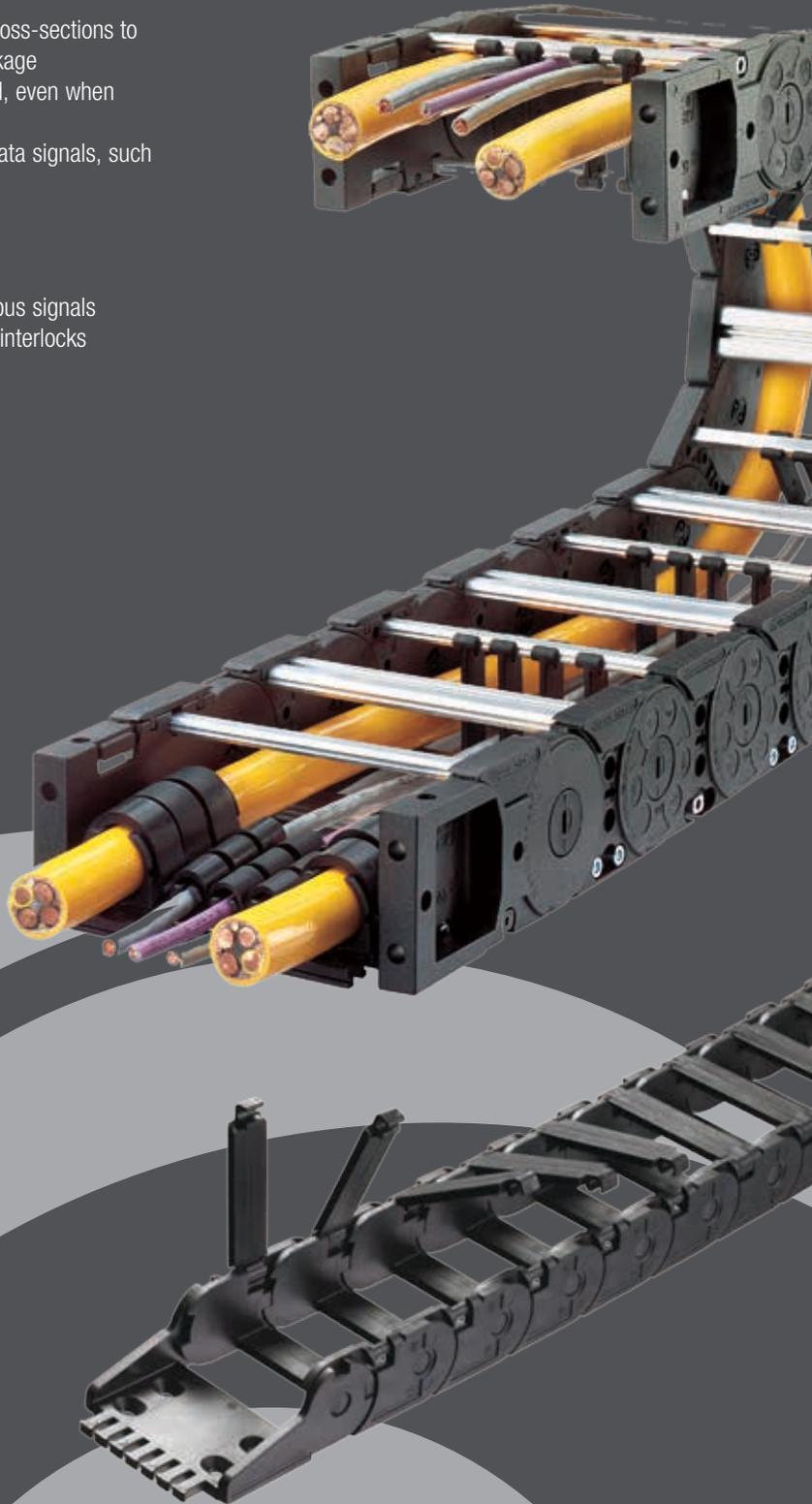
Energy Guiding Chain Systems

Advantages

- Allows a variety of cable types and cross-sections to be combined into one protective package
- High power levels can be transmitted, even when stationary
- Reliable transmission of all current data signals, such as Ethernet, Profibus, CAN bus.

Applications

- Transmission of control signals and bus signals
- Energy supply to junction boxes and interlocks



System advantages

When moving mobile lighting and speaker towers, cables are guided accurately and in a controlled manner.

Applications

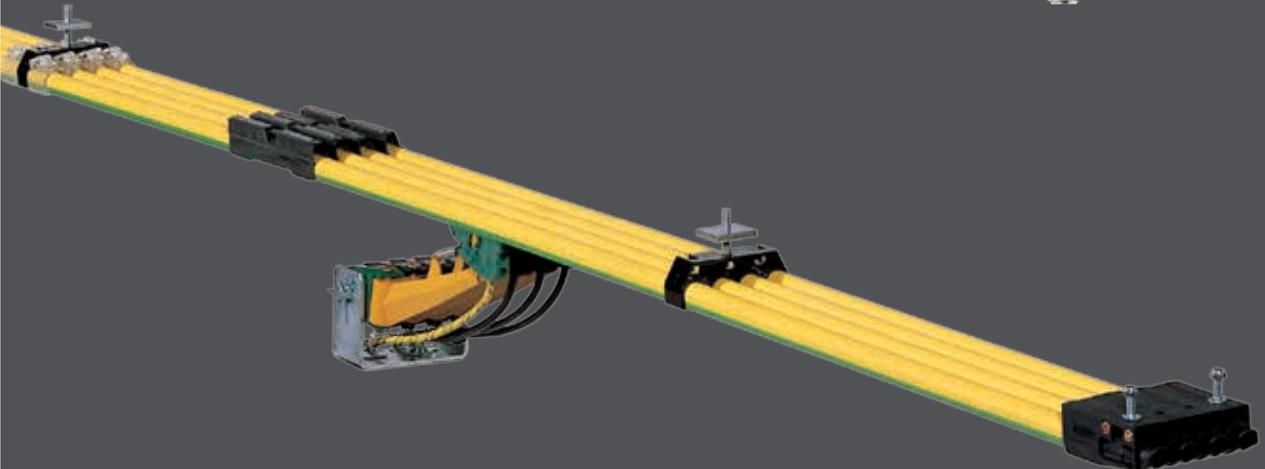
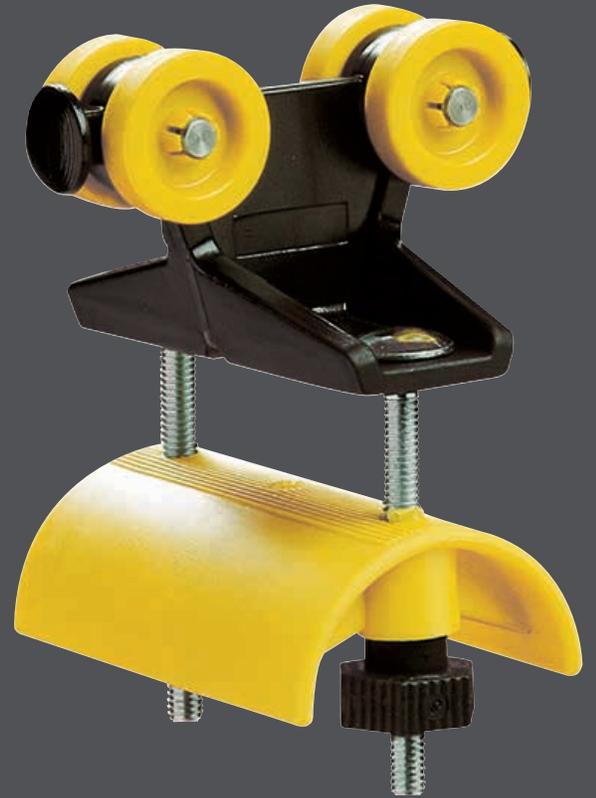
- Energy supply and control of spotlights
- Transmission of audio signals

Conductor Rails

- Multiple towers can be supplied independently using one conductor rail system
- Compact conductor rails have high power capacity
- Available with optional black insulation profile

Festoon systems

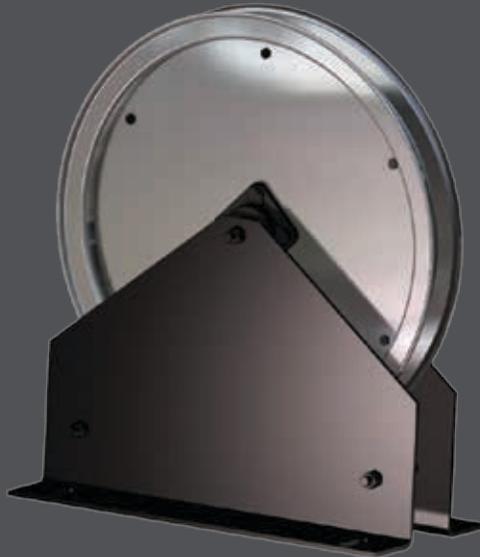
- Reliable transmission of data signals; no sliding contacts
- Easy rolling with special coating for quiet motion
- Complete range of cables for energy and data transmission, with or without shielding



Cable Sheaves

Use a Cable Sheave when the cable must pay out in two directions and is terminated at the center of travel or when a structural member or obstruction would interfere with the normal payout and retraction of the cable.

Type	Bend Dia	Max. Cable OD	Part No.
	inches (mm)		
Single Sheave	12 (305)	1.0 (25.4)	CA11397
Single Sheave	18 (457)	1.5 (38.1)	CA11518
Single Sheave	24 (610)	2.0 (50.8)	CA11199



CA11397

Ball Stops

Generally used for manually operated "Lift/Drag" applications to govern retraction length. Stops are required when cable-end accessories such as hand lamps and receptacle boxes are installed on the reels.

For Outside Cable Dia of: inches (mm)	Part No.
0.19 to 0.44 (4.8 to 11.2)	34885
0.44 to 0.62 (11.2 to 15.7)	34474
0.63 to 0.75 (16.0 to 19.1)	34475
0.75 to 1.05 (19.1 to 26.7)	34476
0.44 to 1.38 (11.2 to 15.7)	533328-K



34475

Roller Guides

Used to center the cable on the spool for payouts not more than 15 degrees from tangent to the drum in single-direction stretch applications.

Maximum Cable O.D. inches (mm)	Roller Guide Part No.
1.25 (32)	A2
2.00 (51)	A3A

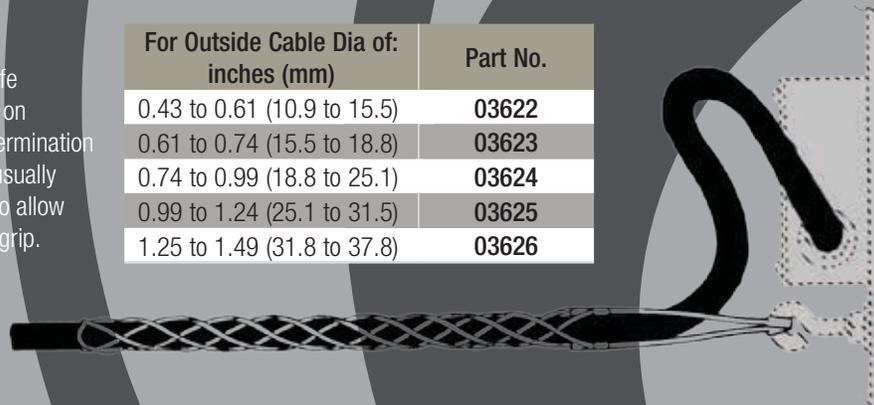


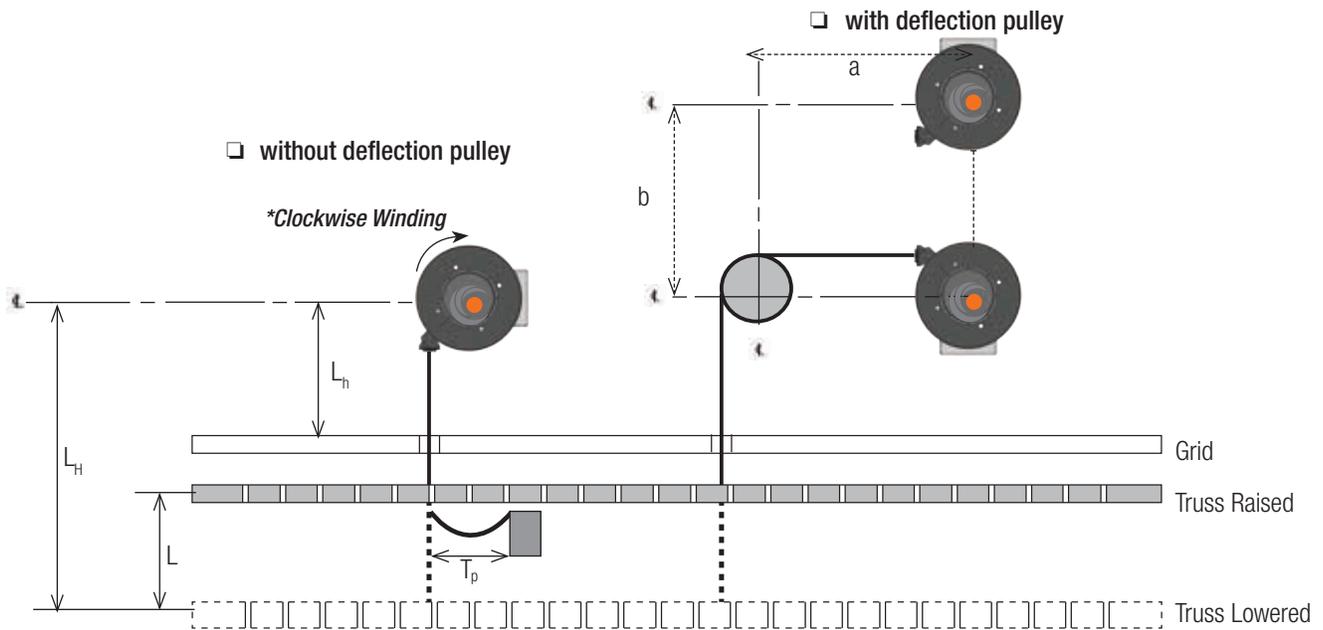
A3A

Cable Grips

Recommended to maximize cable life by relieving the concentrated strain on individual conductors at the cable termination point. The eye of the cable grip is usually connected to an eye bolt or U-bolt to allow free movement between cable and grip.

For Outside Cable Dia of: inches (mm)	Part No.
0.43 to 0.61 (10.9 to 15.5)	03622
0.61 to 0.74 (15.5 to 18.8)	03623
0.74 to 0.99 (18.8 to 25.1)	03624
0.99 to 1.24 (25.1 to 31.5)	03625
1.25 to 1.49 (31.8 to 37.8)	03626





Application Data:

- Attachment point of cable on the truss
 - Centered and Symmetrical, if several reels**
 - Offset - at the end of the truss
- Weight of the truss _____ [lbs.]
- Type of application / transmission
 - Truss Static During Operation**
 - Truss Moving During Operation
- Cycles _____ (2 / day)
 - Per day Per week Per month
- Lifting speed _____ [fpm] (80)
- Acceleration _____ [ft. / s²] (0.444)
- Run time to full speed _____ [s] (3)
- Will the cable be disconnected from the truss, requiring the reel to retract the cable without a device attached?
 - Yes (motorized reel is required) **No**
 - If yes, what power is available for the electric motor(s) _____ Power
- How will the reel be mounted:
 - Ambient temperature min. _____ [F°] (50) max. _____ [F°] (104)
 - N.E.M.A. (National Electrical Manufacturer Association) rating _____ (4)
 - Travel Length L _____ (ft.) Hanging Length L _____ (ft.)
 - Mounting Height L _____ (ft.) (5)
 - With deflection pulley Yes **No**
 - Distance from reel to pulley (horizontal) a _____ (ft.)(5)
 - Distance from reel to pulley (vertical) b _____ (ft.)(0)
 - Length for Termination T_p (ft.) (2)
 - Reels will be used for different trusses
 - Yes **No, cable will remain in one fixed position on the same truss**
 - Winding direction (viewing the slip ring assembly)*
 - clockwise (see sketch)** counter clockwise
 - Only for motorized reels. Will the reel need to interface with the winch controls?
 - Yes **No**
 - Will third party certification be required?
 - Yes **No** If yes which one: UL CSA CE

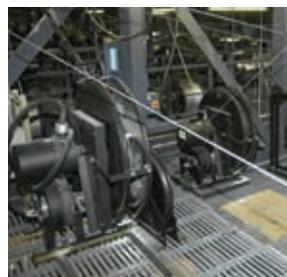
Base Up



Base Down



Base Wall



Electrical Parameters

Current

	Reel 1	Reel 2	Reel 3	Reel 4
No. of Circuits*				
No. of Conductors				
Gauge Size				
Voltage				
Amps				

* One circuit = 1-hot +1-neutral + 1-overall ground in determining the number of conductors required. For example 18 circuits would equal 36 "useable" conductors, plus one over all ground, for a total of 37 total conductors required per reel.

Data

- DMX Quantity of Reels:
- Ethernet Quantity of Reels:
- Fiber Optics Quantity of Reels:
- No. of Fibers
 - e9 / 125 Singlemode
 - 50 / 125 Multimode
 - 62.5 / 125 Multimode

Customer Data

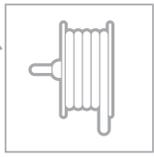
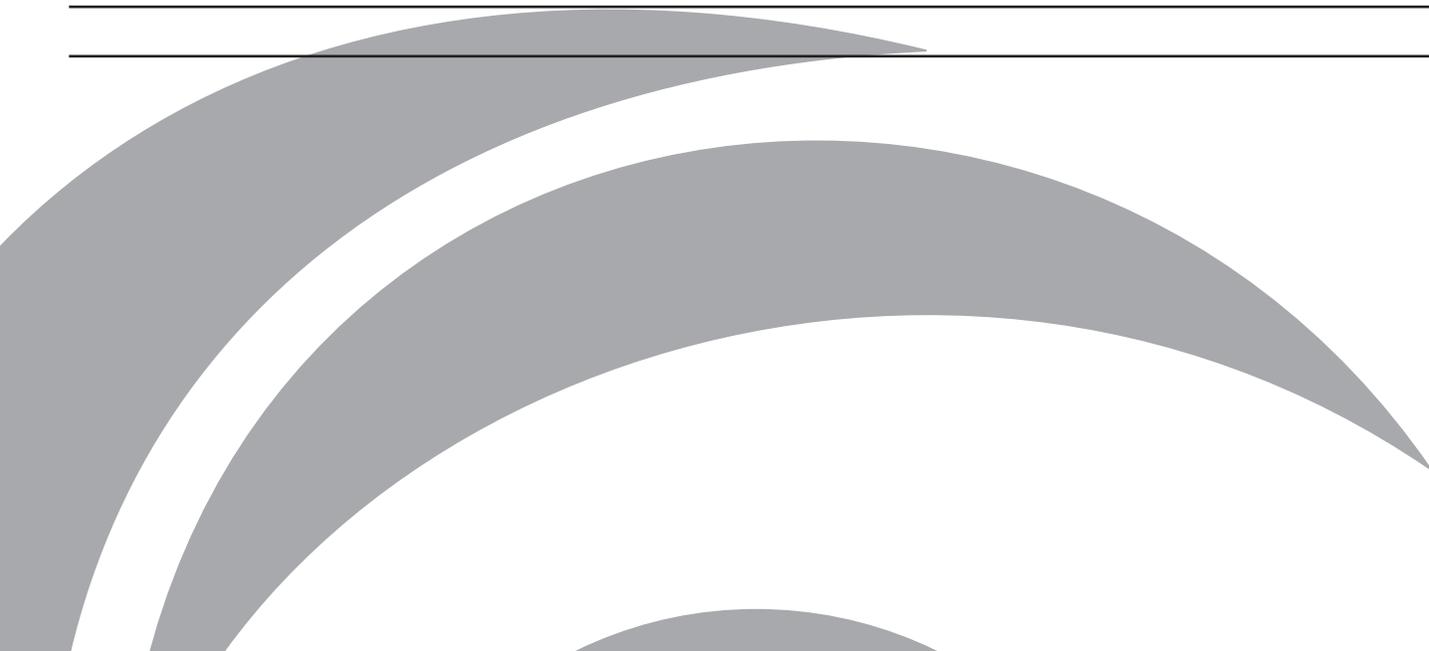
Request Date: _____
 Company Name: _____
 Address: _____

 Project Name / Number: _____
 Project Installation Date: _____

Contact Name: _____
 Title: _____
 Phone: _____
 Fax #: _____
 Email: _____
 Project Location: _____

Required Documentation (Hard copies / Digital)

Additional Comments



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