

# Aircraft Cable Management Systems







## Passenger Loading Bridge

### Cable Reel PLB400

In today's rapid-turnaround airport environments, the PLB400 400 Hz cable reel system provides a quick and reliable source of power for parked aircraft. Aircraft systems powered from ground power sources save fuel and improve air quality at the airport.



The reel can be mounted horizontally under the passenger bridge or under the 400 Hz converter. Or it can mount vertically to the side of the bridge.

The precision-engineered internal reel mechanism flawlessly unwinds and rewinds cables and keeps them protected.

#### Benefits of the PLB400

The sophisticated reeling system provides the maximum protection for your cable investment. It eliminates the need to stow cables in a pit, suspend them on a hoist, move them around in a trailer, or leave them on the tarmac.

With cable safely stowed, safety risk to ground personnel is greatly reduced. The cable will not obstruct the movement of ramp vehicles.

Cables stored in the PLB400 reel system cannot catch on aircraft doors; a common problem with cable hoist systems.

#### PLB400 Features

Minimal space consumption - the unit is only 610mm (24") high!

**Accurate winding** is provided by precision rollers and rugged cable guiding device.

Advanced electronic control system with programmable operating parameters.

Fail-safe overload protection stops the spool from rotating if the line-pull on the cable ever becomes excessive.

# Fully protected components;

spool, drive motor, slip ring assembly, and control system are completely enclosed.

Easy servicing, since the major components are modular. Cable replacement, if necessary, can be done in less than two hours.

Easy installation, set-up, and operation. Just mount the reel, wire the 400 Hz cable and the motor power supply to start protecting your cables!





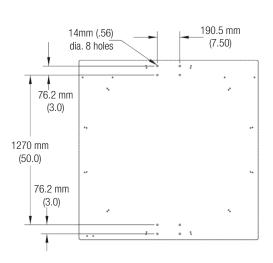
### **PLB400**

# Specifications

| Description  | Specifications  |
|--|---|
| Construction:  |   |
| Spool and Slip Ring Enclosure                            | Aluminum  |
| Frame and Exterior Panels                                | Steel   |
| Hardware   | Stainless Steel, Metric   |
| Standard Exterior Finish                                 | Ultrasonic Chrome Urethane Enamel   |
| Optional Exterior Finishes                               | Contact the Factory   |
| Mounting:  |   |
| Orientation  | Horizontal or Vertical  |
| Mounting Brackets  | Customized to fit any suitable passenger loading bridge. Interfaces with mounting holes shown below.                            |
| Unit Dimensions:   |   |
| Horizontal - W x D x H                                   | 1534mm x 1534mm x 610mm (60.38" x 60.38" x 24")   |
| Unit Weight:   |   |
| With 27.44 m (90 ft.) of Single<br>Jacketed 400 Hz Cable | 442.25 kg (974 lbs.)  |
| 400 Hz Cable   |   |
| Maximum Length   | 36.57 m (120 ft.)   |
| Cable Types  | Can be set up to accommodate most types, with or without scuff protection.  |
| Operating Temperature Range:                             |   |
| Ambient  | -40°C to +55°C (-40°F to 131°F)   |
| Electrical Enclosure:                                    |   |
| Weather Resistant  | IP65 (NEMA 4)   |
| Retraction Motor Input Voltage Options:                  |   |
| 50 or 60 Hz  | 100-120 V Single-Phase  |
|  | 200-240 V Single-Phase  |
|  | 200-240 V Three-Phase   |
|  | 380-480 V Three-Phase   |
| Programmable Electronic Controls:                        |   |
|  | Cable In / Cable Out Limits   |
|  | 2. Adjustable Speed Control: 1.52 m/m to 30.48 m/m (5 f/m to 100 f/m)   |
|  | 3. Starting Acceleration (for soft starts)  |
|  | 4. Spool Brake Delay (for soft stops)   |
|  | 5. Driveline Monitoring   |
|  | 6. Safety Stop: In and out directions - in case cable is caught under a service vehicle or is otherwise impeded from retracting |
|  | 7. Safety Interlock: Retraction motor won't operate if 400 Hz power is on   |

### **PLB400 Mounting Configuration**

Conductix-Wampfler offers customdesigned brackets to fit most any mounting requirement. Contact Conductix-Wampfler to discuss your unique needs.



### **Tarmac Mounted**

### Cable Reels

Conductix-Wampfler manufactures several other reel configurations to manage 400 Hz cables or hoses on the tarmac.

The PLB400, as described on the previous pages, can be "tarmac mounted". In addition, we also build "bulk-wrap" style spools in single, side-by-side, or stacked configurations.





For this style of reel, the motor control system is manually activated with a push-button switch.

All assemblies are weather-proof NEMA 4 / IP56 and can be equipped with expanded metal safety panels and other devices to protect the reels from tarmac traffic.



Double-stacked reels to save space; Shown with protective mesh enclosure.



PLB400 mounted at the tarmac level and suspended above the converter.



The PLB400 can be used with with any model of 400 Hz converter; shown here mounted next to the converter.

Contact us with your requirements!



## Hangar and Maintenance Area Cable Reels

Conductix-Wampfler designs and manufactures reels to manage 400 Hz cable and hoses in maintenance hangar environments.

These are generally "bulk-wrap" style reels in either motorized or spring-driven configurations.

We also offer a full array of standard spring-driven reels to handle 300 and 600 volt cables and hoses. All electrical assemblies are sealed to NEMA 4/IP56 standards, and can be equipped with various cable sizes and types.



Contact us with your requirements!













Pedestal-Mounted

### Other Products from Conductix-Wampfler

The products described in the 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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