Omni Automation – DCS
Docking Conveyor - Steel

Product Description

The Omni Automation DCS Docking Conveyor is a fixed mount powered roller conveyor that can be installed in a facility to automatically receive cargo and accept cargo from a top module conveyor mounted on a **MiR 100** or **MiR 200** mobile robot. These conveyors can be installed at workstations throughout a facility to automatically transition product, materials, supplies, parts or good from a fixed conveyor platform to a mobile robot. These can be used in Manufacturing Facilities, Institutions and Warehouses.

When the mobile robot with a conveyor top module arrives at a destination with a DCS Docking Conveyor the two conveyors will communicate over Wi-Fi or Bluetooth to signal the transfer of cargo from one conveyor to the others. Sensors on these conveyors signal the MiR robot to continue on its mission once the cargo is successfully received or discharged.

Using additional sensors, the DCS Docking Conveyor can be programmed to discharge or receive multiple loads when docked with a mobile robot. Customer sensors and devices, such as pushbuttons, flashing light beacons, and photo eyes can be wired to the DCS Docking Conveyor to signal the system to perform specific tasks such as calling for a robot to retrieve cargo or to indicate the receipt of cargo.

Specifications	**DCS**
Conveyor Dimensions	Standard conveyor length is 60” long (other lengths available), available conveyor widths are 16”, 18” and 24”.
Top of Roller Elevation	Top of Roller elevation from 26” to 36” to match elevation of mobile conveyor.
Roller Speed	The Roller speeds are adjustable from 20 FPM to 120 FPM with acceleration and deceleration adjustable controls.
Roller Drive System	The rollers are driven by a 24 VDC motor driven roller.
Roller Diameter	Each roller is 1.9” in diameter.
Weight Capacity	The maximum conveyor payload capacity is up to 75 lbs.
Communications	The docking conveyor communicates with the MiR robot and host system by Wi-Fi or Bluetooth data signals.
Operator Interfaces	Touchscreen operator interfaces are optionally available and can be mounted to the Top Module.
Sensors	Each docking conveyor includes one photoelectric sensor to detect the presence of the payload. Additional sensors are available.
Power	The DC docking conveyor requires a 120VAC power feed. Typically 300 watts when running.
Options	Options include a belted conveyor with a variety of belt types, adjustable guard rails, multiple zones for zero pressure accumulation, fixed stops to prevent payload from exiting one end, docking sensors, custom conveyor lengths, widths and elevations are available.

Contact Omni Automation for information on additional top modules or custom top modules.

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Mobile Robots

The **MiR100™** is a safe, cost-effective mobile robot that quickly automates your internal transportation and logistics. This 100kg payload robot optimizes workflows, freeing staff resources so you can increase productivity and reduce costs. This robot has a towing capacity of 300kg.

The **MiR200™** is a safe, cost-effective mobile robot with a 200kg payload capacity. This mobile robot has a towing capacity of 500kg.

Common Top Modules

TMRC

The Omni Automation **TMRC** is a powered roller conveyor that mounts on top of these robots. A mobile robot with a **TMRC** top module can autonomously transport product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.

TMSU

The Omni Automation **TMSU** is a top module that provides adjustable shelving positions for autonomously transporting product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses.

TMROR

The Omni Automation **TMROR** is a top module with a robotic arm that performs various tasks throughout a facility. These robotic arms utilize a Collaborative Robot with a payload capacity of up to 10 KG. These robots can be used to retrieve product, perform manufacturing tasks, or work along-side humans in industrial manufacturing.

TMBC

The Omni Automation **TMBC** is a powered belt conveyor that mounts on top of these mobile robots. A mobile robot with a **TMBC** top module can autonomously transport product, materials, supplies, parts or good in Manufacturing Facilities, Institutions and Warehouses

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