

VarioRoute

Flexibly applicable solution for highly efficient flow splitting



The challenge

Each logistics center has a unique architecture and layout, and each one processes a unique range of formats. Sorting equipment has to meet a variety of scenarios – for example to direct parcel flows to sorter inductions or reject areas, as well as to discharge or divert parcels automatically. Flexibility in design is more important than ever.

Our solution

VarioRoute consists of a platform of individually controlled rollers that can transport a large variety of parcels in different directions. Its unique architecture of independently pivoting rows and individually driven rollers allows very reliable parcel manipulation. Each roller is driven by a motor integrated into the roller itself.

The solution comes in two basic versions: **VarioRoute 800** represents the most common product for daily use in parcel sorting. **VarioRoute 1600** offers a larger transport width. Both provide a two- or three-way split.

They are available in different lengths to meet a variety of requirements. A building-block system provides the possibility to use between four and 24 pivoting roller units (PRUs) in steps of two for VarioRoute 800 and eight to 48 PRUs for VarioRoute 1600.

There are also specially designed modules to reliably divert small and oddly shaped parcels. These are available with six or ten PRUs (VarioRoute 800).

Customer benefits

- High reliability as a result of a robust design
- Easy and cost-effective maintenance with short repair times of under 15 minutes
- Individual speed control for each motor up to 2.5 m/s
- One wear part on the VR 800 (belt), no wear parts on the VR 1600
- Pure electrical solution with low operating costs
- Ready for Predictive Maintenance with Diverter 360

Technical data

Length	VarioRoute 1600*: 1,400 mm VarioRoute 800**: 2,300 mm
Width (w/o cabinets)	VarioRoute 1600: 2,050 mm VarioRoute 800: 1,010 mm
Side guard height	300 mm
Processing level height	600 or 830 mm ± 50 mm
Transport speed	Up to 2.5 m/s
Throughput	Up to 12,000 items per hour
Pivoting angle	±45°
Dynamic load	50 kg/m
Power rating	230 VAC, 1 phase
Effective power	VarioRoute 1600*: 750 W VarioRoute 800**: 590 W
Weight	VarioRoute 1600*: ~760 kg VarioRoute 800**: ~620 kg
Cabinet	~50 kg
Communication to high-level control system	Profinet or Digital I/O

Parcel sizes

Length	100 mm – 1,300 mm
Width	VarioRoute 1600: 75 – 900 mm VarioRoute 800: 75 – 600 mm
Height	VarioRoute 1600: 3 – 900 mm VarioRoute 800: 1 – 600 mm
Weight	VarioRoute 1600: 0,1 – 50 kg VarioRoute 800: 0,1 – 40 kg maximum load is 0,5 kg/dm ²

* with 28 pivoting roller units

** with 12 pivoting roller units



Belt Transport Module and Extension Module for VarioRoute 800

Belt Transport Modules are located up- and downstream of the Central Module(s). These belts which boast a lower friction than transport belts, enable parcels to be rotated and diverted even if parts are still on the transport belts. An Extension Module with two PRUs can be added to the configurations for standard parcels to increase the overall length without using a complete Central Module.



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