

Railway point machines

The railway interlocking technology requires maximum safety and reliability from the point machine. With our special technology, we produced thousands of electromechanical (WSSB license) and electro-hydraulic (ALCATEL license) point machines, which have been meeting the needs for decades.

Railway equipments

We have a wide selection of the railway devices. From the electro-pneumatic valves and railway couplings to the medium voltage contactors and controllers there are a lot of devices in our product list. Our company has a long tradition in designing and manufacturing current collectors for public transport. Both of the railway vacuum circuit breaker and the high-powered air insulated outdoor resistor can be found in our new developments.

Test room

We provide opportunity to measure power-current equipments of electric vehicles driving system.

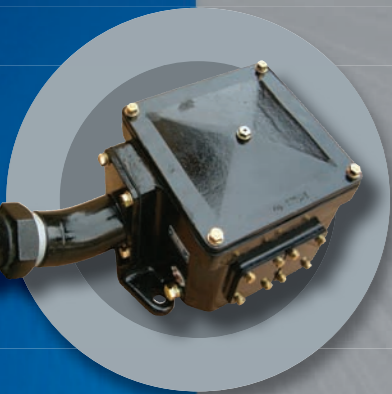
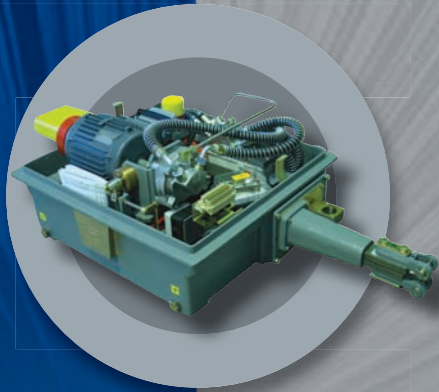
Our simultaneous measurement options: Inverter or chopper measuring equipment, vehicle auxiliary equipment I. measurement site and vehicle auxiliary equipment II. measurement site

Main parameters of the measurement sites:

Regulated output voltage	max. 1100 VDC
Regulated output current	max. 500 A
Non-inductive load:	max. 500 kW

All of our products are also fully operational in -40°C.

We reserve the right to make modifications!



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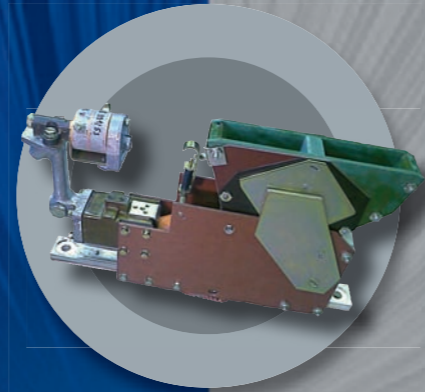
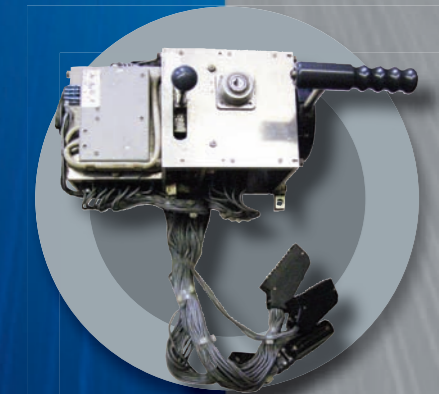
About our company

Our main profile is to produce railway safety and railway signalling equipments and manufacture power electronic units and railway devices for traction vehicles.

Our company's mission is to serve our costumers fast and in high quality. As a responsible company our aim is to be successful with our environment-friendly and safe product range in the XXI. century – just like we have been since 1950.

Our vision is that the company of ours is going to be more and more dominant in the area, shall continue its success in the business life and respond to the changing market impulses and environmental background. GTKB Ltd. and its predecessors in title can boast with a very long and colorful range of domestic and export references. One of our most significant domestic partner is the Hungarian State Railways Co. As the result of our collaboration we delivered more than 400 electric locomotive devices and we supplied about 250 stations with railway safety appliances. Sales for export is also significant. In Europe we have delivered and actually deliver complete railway equipments and railway safety appliances to Austria, Bulgaria, Slovakia, Croatia, Romania and Finland. Our entry to the Global Market is represented by the products which had been sold to Malaysia and India.

In the area of the traction vehicle electronics we manufactured hundreds of inverters, auxiliaries for the trolleybuses running in Budapest, Szeged, Debrecen. The propulsion system of the modern low-floor trolleybuses in Riga, Tallinn, Rome and Naples was also made in our factory. In connection with the modernization of the electric vehicles of T5C5 in Budapest and T3M Tatra in Riga and Moscow, the chopper control propulsion was also designed and fabricated over here.



Main product groups

Vehicle electronics

Our traction vehicle electronic devices are – intelligent, made by using advanced semiconductor IGBT devices, capable for isolated operation – units, which are used for the control propulsion of trams and trolleybuses. We also produce vehicle control units for the same vehicles, which can control and regulate the full electric propulsion and auto electric system.



Choppers

The chopper generates intermittent voltage from the direct voltage of the electrical network for DC traction motors. The driving motor can be accelerated or braked by changing the mean value of the emitted filtered voltage.

Basic data

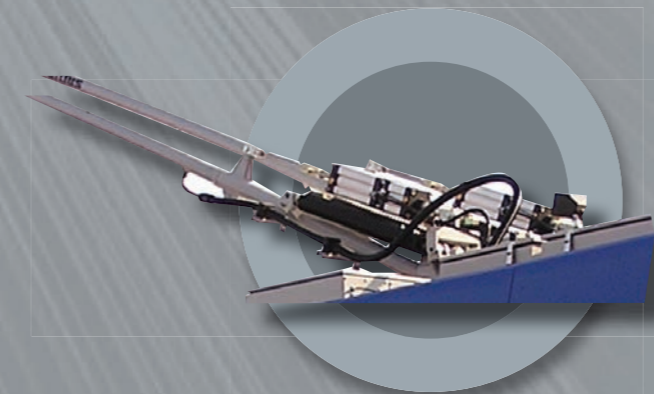
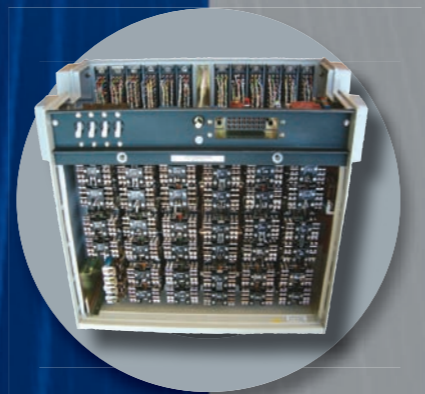
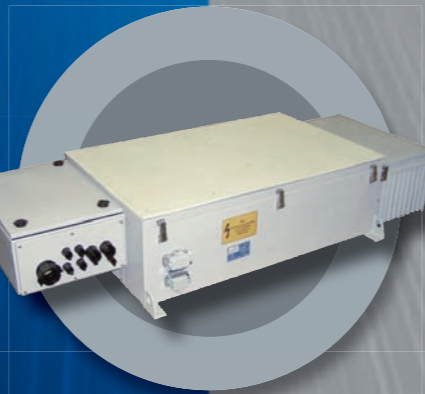
Rated voltage:	400 – 800 VDC
Rated current:	150 A
Starting peak current:	275 A

Inverters

The IGBT inverter generates three-phase alternating balanced voltage from the direct voltage of the trolley's DC network for the asynchronous traction motor. The driving motor can be accelerated or braked by changing the mean value, phase position and frequency of the emitted voltage.

Basic data

Rated voltage:	600/750 V (400–900)
Rated current:	300/400 A
Starting peak current:	460/500 A

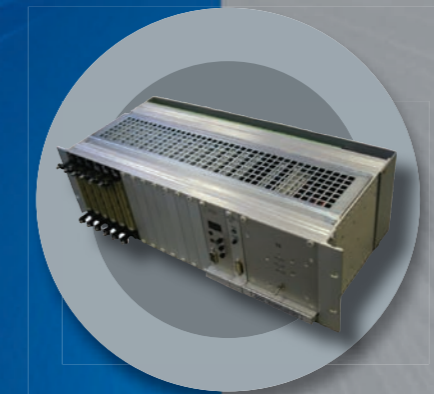


Auxiliaries

The auxiliary equipment provides the auxiliary power supply for the air-conditioning system of the vehicle and the charging for the vehicle traction battery.

Basic data

Rated line voltage:	600/750 V (400–900)
Rated input current	45 A



SPECIFICATION OF AIR CONDITIONING INVERTER UNIT

Basic data

Rated voltage:	400 V–1000 V
Output voltage:	3x230 V line effective
Power output	30 kVA

SPECIFICATIONS OF TRACTION BATTERY CHARGER UNIT

Basic data

Rated voltage:	350 V–900 V
Charging voltage:	300 V–450 V adjustable
Charging current	3 A–30 A, according to the technical specification of the vehicle control.



Vehicle controllers

Our vehicle controllers are used for controlling and harmonising the units of the railway, trolley and electric vehicles.

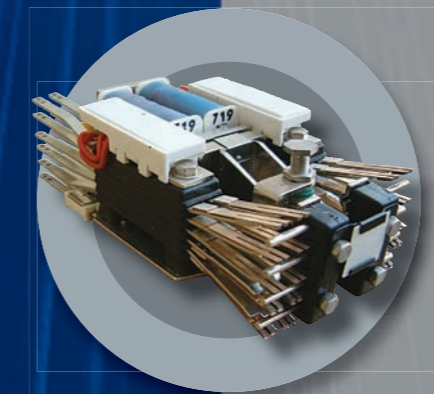
Basic data

Digital inputs:	120 db
Relay/transistor outputs:	48/48 db
Analog inputs:	24 db / 12 bit /-10..+10 V

Types of the railway safety equipments

Outdoor equipments

Mainly: Cable terminal boxes, light signals, safety rack frames next to track side.



Indoor equipments

Mainly: Integra Domino 55 and 70 frames, relay units, relays, TM relays, magnetic contactors and train order desks.