



PRAKAB PRAŽSKÁ KABELOVNA



# Modernization of railway section

H. Králové–Pardubice–Chrudim



PRAHA



## KEY FACTS

- PROJECT „Modernization of railway Hradec Králové–Pardubice–Chrudim in the section Stéblová–Opatovice n/L.“
- Implementation in the period November 1, 2013 – April 30, 2016
- Total investment of 1.2 billion CZK
- 54 signal lamps, 20 point machines, 18 axle counters and
- 96 contact transformers were installed.
- Supplier of safety equipment AŽD Praha s.r.o.
- Dozens of kilometers of PRAKAB cables

## AŽD

AŽD Praha is the largest Czech manufacturer and supplier of safety, telecommunications, information and automation equipment, particularly focusing on rail and road transport, including telematics and other technologies. The company provides research, development, design, manufacture, reconstruction and maintenance of equipment, systems and investment units in the following key areas:

- Rail transport
- Metro operation and factory transport
- The area of telecommunication, information and radio systems
- Telematics applications
- Road, signaling and parking systems
- New telephone and radio systems for rail transport and for informing passengers

## PROJECT

The primary objectives of the project were to build a second railway track route and replace the existing obsolete equipment with modern electronic security and communication systems. This led to an increase in the quality of long-distance passenger transport, especially in terms of higher traveling comfort. Trains can now routinely reach speeds of up to 160 km/h on the route. New devices allow remote control of railway traffic from the control center, ensure reliable operation and shorten travel times.

Limiting the human factor will also significantly contribute to the safety of rail and road transport at railway stations.

## CONTRACT

The modernization of railway section H.Králové -Pardubice -Chrudim was financed from EU grant funds, and therefore the highest demands were placed on the selection of contractors. PRAKAB supplied dozens of kilometers of signalling and communication cables filled with special grease to prevent the penetration of longitudinal moisture. These cables used for railway telecommunication, control and signalling systems are named TCEKPFLEY with armor or TCEKPFLEZE with aluminum wires acting as armor, suitable for installations with higher demands on mechanical stress. Both cables were delivered in a very wide range of manufactured sizes.

PRAKAB cables were used to connect various devices for increasing passenger comfort, and primarily the safety of operation. These devices include the new electric switch heater for increasing the reliability and operability of switches in frost and snow, or new HV and LV connecting cables for ensuring power supply to electrical devices at stations and stops, and a new lighting system for secure access in times of reduced visibility.

In the double-track section there is a new 3rd category signalling device in the form of an electronic automatic block system, and an automatic gate in the following section. This increases the safety, reliability and capacity of the railway traffic. All level

crossings are newly secured with a light gated level crossing (PZS) category 3ZBI with a whole gate.

New radio equipment is installed for informing passengers, as well as an information system for passengers at stations and stops. A new camera system is installed at Stéblová station and the stop at Opatovice nad Labem for the protection of facilities. Dispatcher control technology includes a system of remote diagnostics technology systems for the railway infrastructure.

