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AKAPP Product News

simatic **SIEMENS**

POWER RAIL BOOSTER

**AKAPP conductor bar systems for
PROFIBUS-DP data transfer**

SIMATIC Power Rail Booster

Use in monorail overhead conveyors

The SIMATIC® Power Rail Booster permits the transmission of PROFIBUS-DP signals by means of AKAPP conductor bar systems such as Multiconductor® (RN7) and Pro-Ductor® (PR7).

The Power Rail Booster allows a simple installation without terminating resistor by amplifying the signals. It is then possible, for example, to implement new, cost-effective concepts for

- monorail overhead conveyors or
- stacker cranes

on the basis of standard components. The transmission rate is from 9,6 up to max. 500 kbit/s, the conductor bar length from 25 to 1200 m depending on the former (see table below).

transmission rate (kbit/s)	max conductor bar length (m)
9,6	1200
19,2	600
45,45	250
93,75	125
187,5	62,5
500	25

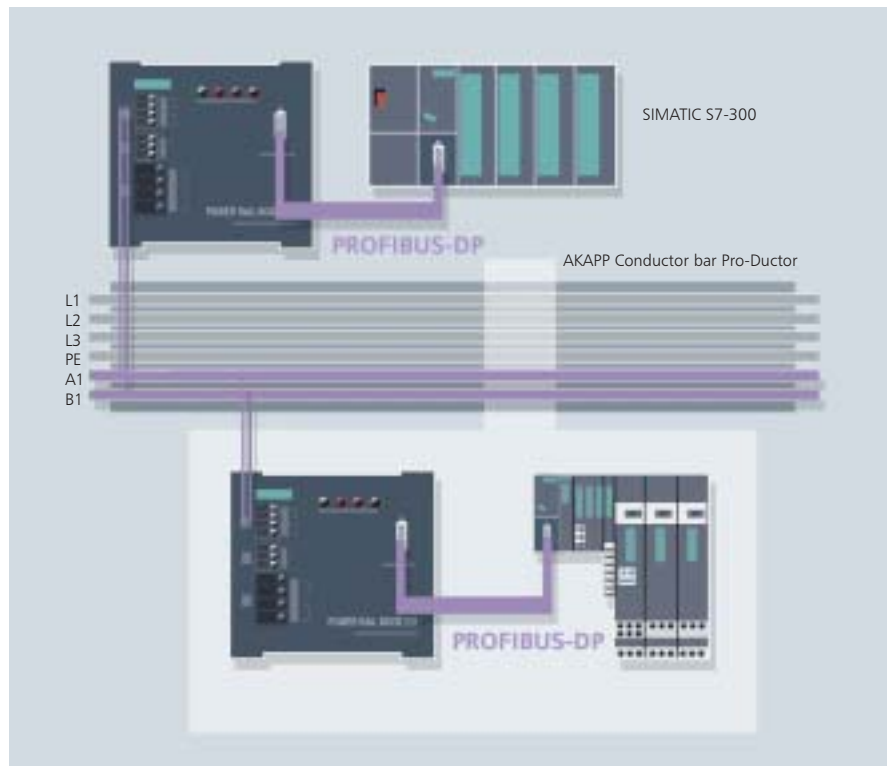
Relation between transmission rate and conductor bar length

The Power Rail Booster supports mono-master and multimaster systems. In contrast to previous - usually proprietary - solutions, signal transmission using PROFIBUS additionally offers

- greater independence,
- comprehensive diagnostics facilities,
- simple interfacing of operator control and monitoring systems.



AKAPP Pro-Ductor PR7



SIMATIC Power Rail Booster connected to PROFIBUS-DP using AKAPP conductor bars

New Concept

AKAPP conductor bars with 6 conductors are required for use with monorail overhead conveyors; 4 collector wires for power transmission (L1, L2, L3, PE) and 2 collector wires for transmission of the power-amplified PROFIBUS-DP signal.

A Power Rail Booster transforms and transfers the PROFIBUS signals to the AKAPP conductor bar systems.

On each crane or machine on the track, a second booster passes on the signals to the central controller.

Thanks to the PROFIBUS standard, it is equally easy to also connect operator panels for operation and monitoring if necessary.

Advantages resulting from standards

The use of standard SIMATIC hardware and software and a standardized fieldbus system offers advantages for plant designers and end users which provide significant savings:

- Openness as result of PROFIBUS standard
- Saving of space by omission of proprietary modulation components
- Low stocking of spare parts and higher availability resulting from fewer components and less wiring
- Faster spare parts service, worldwide

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