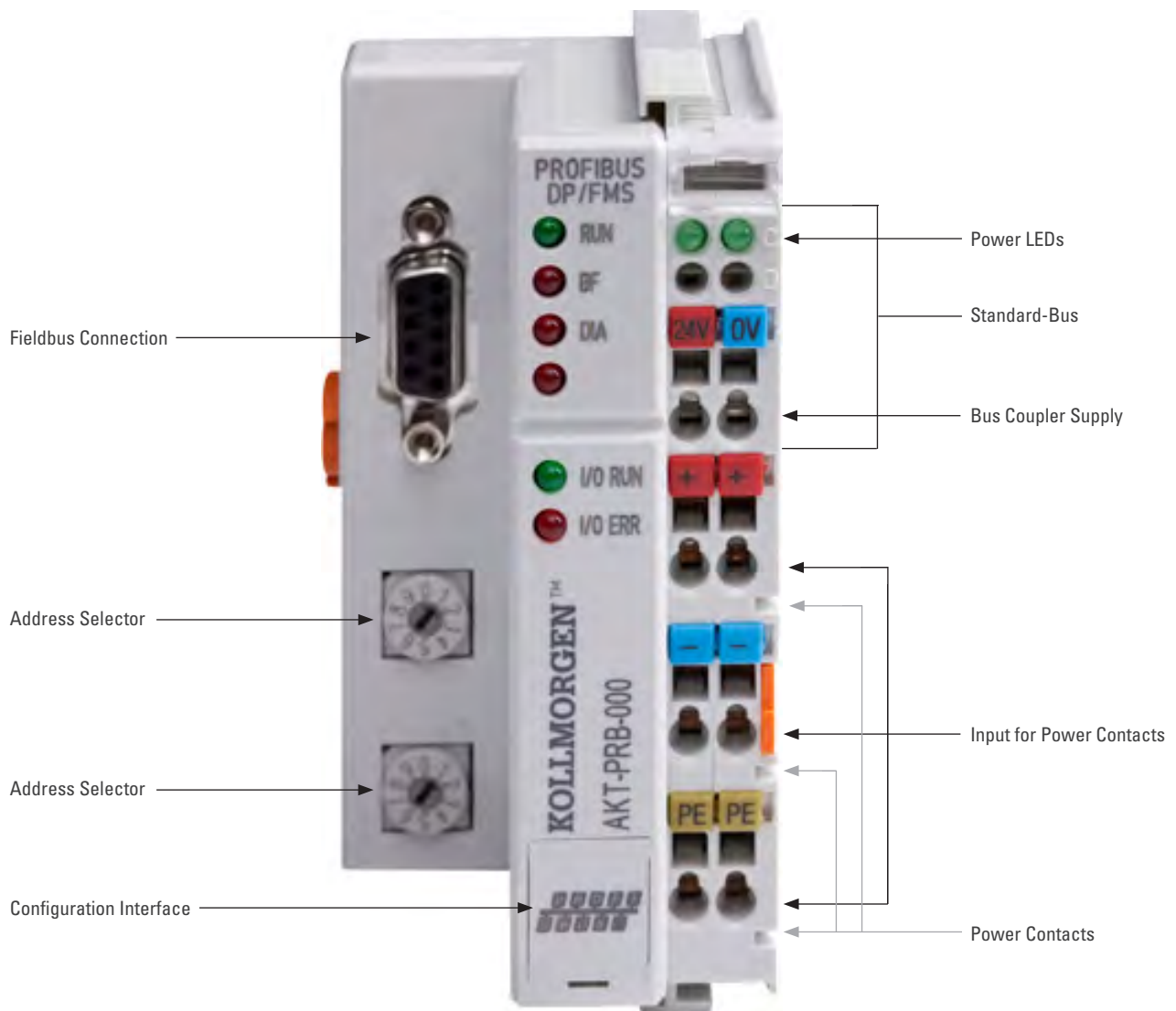


PROFIBUS Coupler

The Bus Coupler connects the PROFIBUS system to the electronic terminal blocks, which can be extended in modular fashion. One unit consists of the Bus Coupler, any number of up to 64 terminals and one end terminal. Up to 64 digital input/output terminals can be connected.

The Bus Coupler recognizes the connected terminals and automatically generates the affiliations of the inputs/outputs to the bytes of the process image. The first input/output signal is inserted in the first bit of one byte (LSB), beginning from the left. The Bus Coupler inserts further signals in this byte. Inputs and outputs are clearly separated. The Bus Coupler automatically begins a further byte if the number of inputs or outputs exceeds 8 bits.



PROFIBUS Coupler

The Bus Coupler supports the operation of all Bus Terminals. As far as the user is concerned, handling of the analog inputs/outputs is not different to other series. The information is available in the process image of the controller for processing in the form of a byte array.

The Bus Terminals can be controlled by the control system. Via function blocks (FBs), the programmable logic controller (PLC) or the Programmable Automation Controller (PAC) handles configuration of the complete periphery during the start up phase. If required, the controller can upload the decentrally created configuration data in order to centrally manage and store this data. Therefore, new adjustments are not necessary in the event of replacement of a Bus Terminal. The controller automatically sets the required setting on power up.

| Electrical and Mechanical Specification | AKT-PRB-000-000 | | | | |
|---|---|-------------|-----------|----------------|-------------------|
| Number of I/O stations | 100 with repeater | | | | |
| Number of I/O points | Approx. 6,000, depending on the master | | | | |
| Data transfer medium | Shielded copper cable, 2 x 0.25 mm ² | | | | |
| Max. cable length | 1,200 m | 1,000 m | 400 m | 200 m | 100 m |
| Data transfer rates (system data) | 9.6/19.2/93.75 kbaud | 187.5 kbaud | 500 kbaud | 1,500 kbaud | ...3, 6, 12 Mbaud |
| Data transfer time (system data) | Approx. 3 ms (10 stations for 32 bit input and output each) | | | approx. 0.5 ms | |
| Number of Bus Terminals | 64 | | | | |
| Max. number of bytes fieldbus | 64 byte input and 64 byte output (DP and FMS mode), 128 byte input and 128 byte output (only DP mode) | | | | |
| Digital peripheral signals | 512 inputs/outputs | | | | |
| Analog peripheral signals | 64 inputs/outputs (only DP mode) | | | | |
| Configuration possibility | Via the controller | | | | |
| Data transfer rates | 12 Mbaud | | | | |
| Bus interface | 1 x D-sub 9-pin socket with shielding | | | | |
| Power supply | 24 V DC (-15 %/+20 %) | | | | |
| Input current | 70 mA + (total K-bus current)/4, 500 mA max. | | | | |
| Starting current | 2.5 x continuous current | | | | |
| Recommended fuse | ≤ 10 A | | | | |
| Supply current K-bus | 500 mA | | | | |
| Power contacts | 24 V DC max./10 A max. | | | | |
| Electrical isolation | 500 V _{rms} (power contact/supply voltage/fieldbus) | | | | |
| Weight | Approx. 170 g | | | | |
| Operating/storage temperature | 0...+55 °C/-25...+85 °C | | | | |
| Relative humidity | 95 %, no condensation | | | | |
| Vibration/shock resistance | Conforms to EN 60068-2-6/EN 60068-2-27/29 | | | | |
| EMC immunity/emission | Conforms to EN 61000-6-2/EN 61000-6-4 | | | | |
| Protect. class/installation pos. | IP 20/variable | | | | |