



EK1100 | EtherCAT Coupler

The EK1100 coupler connects EtherCAT with the EtherCAT Terminals (ELxxxx). One station consists of an EK1100 coupler, any number of EtherCAT Terminals and a bus end terminal. The coupler converts the passing telegrams from Ethernet 100BASE-TX to E-bus signal representation.

The coupler is connected to the network via the upper Ethernet interface. The lower RJ45 socket may be used to connect further EtherCAT devices in the same strand. In the EtherCAT network, the EK1100 coupler can be installed anywhere in the Ethernet signal transfer section (100BASE-TX) – except directly at the switch. The coupler BK9000 (for K-bus components) is suitable for installation at the switch.

| Technical data | EK1100 |
|----------------------------------|---|
| Task within EtherCAT system | coupling of EtherCAT Terminals (ELxxxx) to 100BASE-TX EtherCAT networks |
| Data transfer medium | Ethernet/EtherCAT cable (min. CAT 5), shielded |
| Distance between stations | max. 100 m (100BASE-TX) |
| Number of EtherCAT Terminals | up to 65,534 |
| Protocol | EtherCAT |
| Delay | approx. 1 μ s |
| Data transfer rates | 100 Mbaud |
| Configuration | not required |
| Bus interface | 2 x RJ45 |
| Power supply | 24 V DC (-15 %/+20 %) |
| Current consumption from U_s | 70 mA + (Σ E-bus current/4) |
| Current consumption from U_p | load |
| Current supply E-bus | 2000 mA |
| Power contacts | 24 V DC max./10 A max. |
| Electrical isolation | 500 V (power contact/supply voltage/Ethernet) |
| Operating/storage temperature | -25...+60 °C/-40...+85 °C |
| Relative humidity | 95 %, no condensation |
| Vibration/shock resistance | conforms to EN 60068-2-6/EN 60068-2-27 |
| EMC immunity/emission | conforms to EN 61000-6-2/EN 61000-6-4 |
| Protect. class/installation pos. | IP 20/variable |
| Approvals | CE, UL, Ex |

| Accessories | |
|-----------------|-------------------------|
| Cordsets | cordsets and connectors |

| System | |
|-----------------|--|
| EtherCAT | For further EtherCAT products please see the system overview |