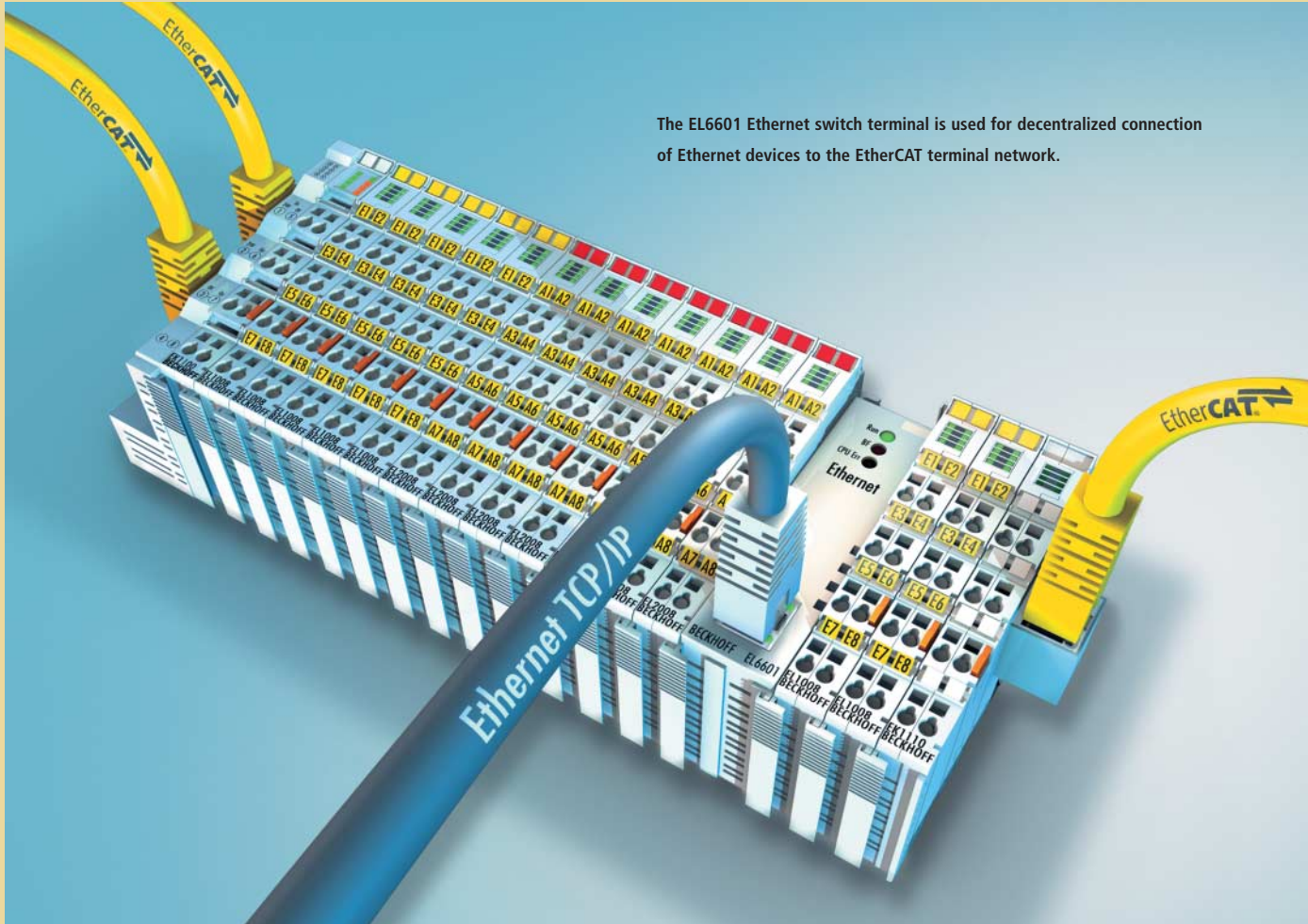


Switch terminal integrates Ethernet devices into EtherCAT system



The EL6601 Ethernet switch terminal is used for decentralized connection of Ethernet devices to the EtherCAT terminal network.

→ In flexible production facilities, automation providers are often faced with the requirement of having to integrate additional Ethernet-based peripherals such as scanners, label printers or data acquisition terminals into manufacturing cells. With the 1-port Ethernet switch terminal, Beckhoff presents a solution that enables connection of any peripheral into an EtherCAT Terminal network.

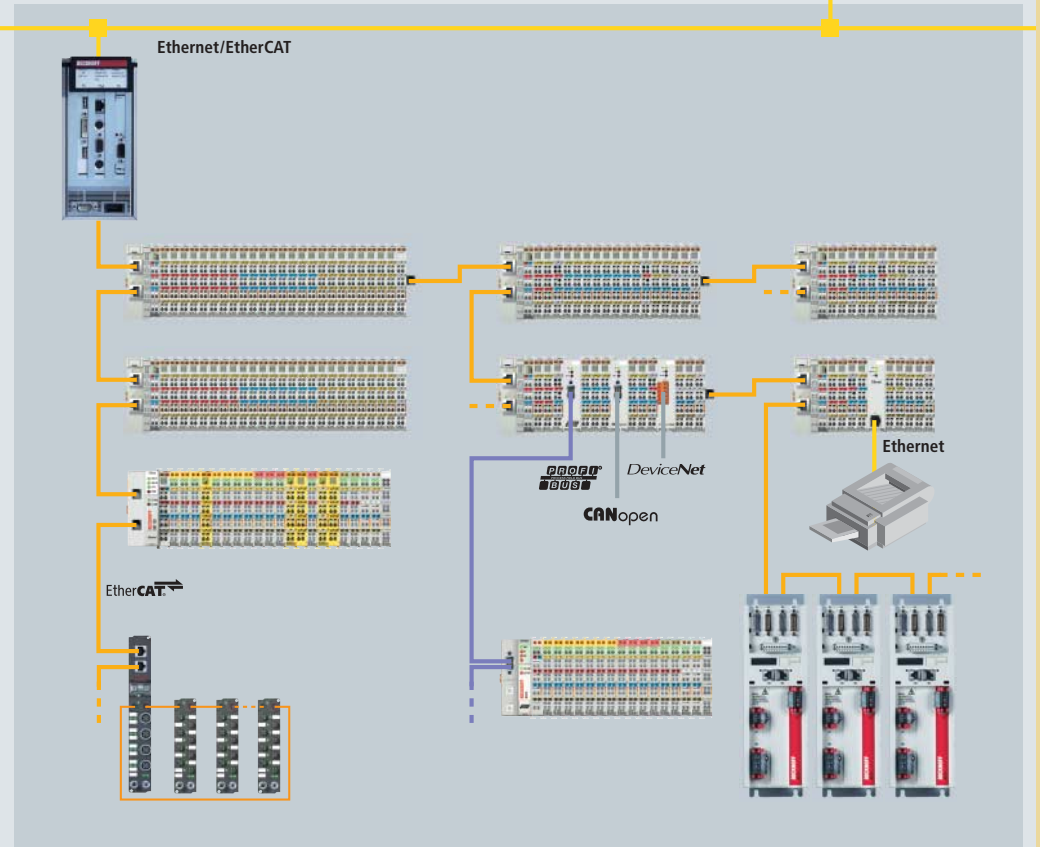
The EtherCAT Terminals form an IP 20 I/O system with around 160 different signal terminals. The special feature: the EtherCAT protocol is maintained right down into the individual terminal. The EL6601 Ethernet switch terminal ensures fully transparent and collision-free Ethernet communication of the connected devices throughout the EtherCAT system. The switch terminal can be installed at any point within the EtherCAT strand.

The EtherCAT technology is not only fully Ethernet-compatible, but also characterized by openness "by design": A wide range of Ethernet devices such as printers or terminals for production data acquisition can be connected within the EtherCAT strand via the Ethernet switch terminal. The Ethernet frames are tunneled via the EtherCAT protocol, which is the standard approach for internet technologies (e.g. VPN, PPPoE (DSL) etc.). The EtherCAT network is fully transparent for the Ethernet devices, and the system's real-time characteristics are not impaired. EtherCAT devices

Properties:

- | 1 Ethernet port
- | all Ethernet (IEEE 802.3) based protocols
- | 10BASE-T/100BASE-TX Ethernet with 1 x RJ 45 interface
- | up to 100 m Twisted Pair cable length
- | 10/100 Mbit/s baud rate, IEEE 802.3u auto-negotiation, half or full duplex at 10 and 100 Mbit/s possible, automatic settings

EtherCAT system overview



Integration of Ethernet and fieldbus devices into the EtherCAT network.

Fieldbus devices (PROFIBUS, CANopen, DeviceNet, etc.) are integrated via decentralized fieldbus master/slave terminals. Removal of the fieldbus master saves slots in the PC.

can additionally feature other Ethernet protocols and thus act like a standard Ethernet device. The master acts like a layer 2 switch that redirects the frames to the respective devices according to the address information. All internet technologies can also be used in the EtherCAT environment: integrated web server, e-mail, FTP transfer etc.

→ www.beckhoff.com/switchterminal

