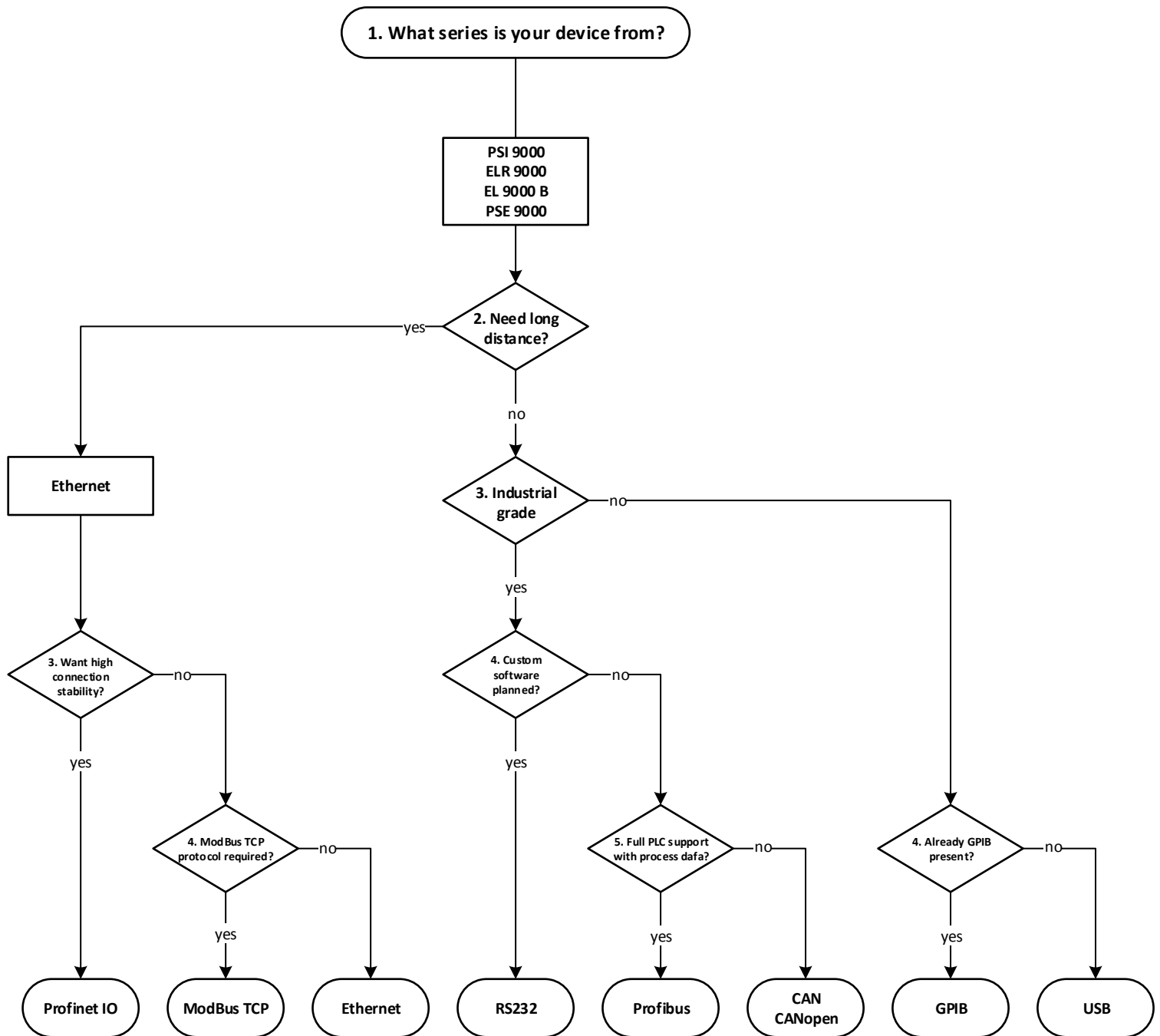






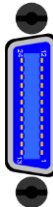


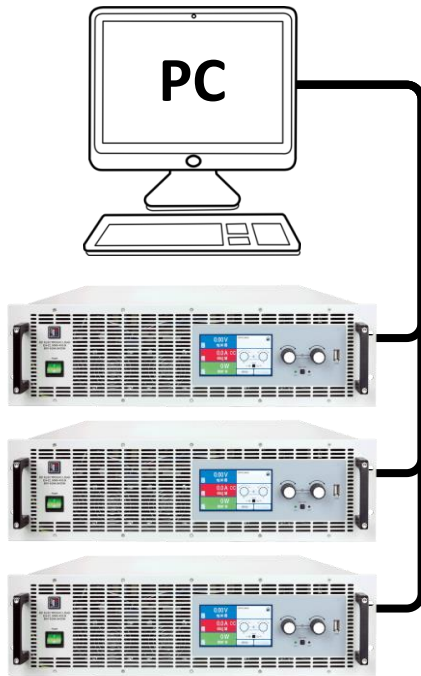
How to find the best remote control interface for your application?



	CAN	CANopen	Ethernet	ModBus TCP	Profibus Profinet IO	RS232	GPIB
Face							
Specs	<ul style="list-style-type: none"> • Type: Bus • 10 kBit – 1 MBit • CAN 2.0 A & 2.0 B • Integrated bus termination • DBC files • Cyclic data 	<ul style="list-style-type: none"> • Type: Bus • 10 kBit – 1 MBit • CANopen standard • EDS/XDD file • Customisable database 	<ul style="list-style-type: none"> • Type: Network • 10/100 MBit • TCPIP, HTTP, ICMP • Website with control functions • 1 or 2 port version • Integrated switch (2 port version) 	<ul style="list-style-type: none"> • Type: Network • 10/100 MBit • TCPIP, HTTP, ICMP • Website with control functions • Supports ModBus TCP frame • 1 or 2 port version • Integrated switch (2 port version) 	<p>Profinet:</p> <ul style="list-style-type: none"> • Type: Network • 1 or 2 port version • Integrated switch (2 port version) <p>Profibus:</p> <ul style="list-style-type: none"> • Type: Bus • Up to 12 Mbit 	<ul style="list-style-type: none"> • Type: P2P • 9600 – 115200 Bd • No handshaking 	<ul style="list-style-type: none"> • Type: P2P • Parallel bus • IEE 488 standard • Built-in
Pro	<ul style="list-style-type: none"> • Industrial grade • High data speed • Medium distance • Bus topology • Exchangeable with other interfaces 	<ul style="list-style-type: none"> • Industrial grade • High data speed • Medium distance • Bus topology • Exchangeable with other interfaces 	<ul style="list-style-type: none"> • High data speed • Long distance • Network topology • Exchangeable with other interfaces • SCPI supported • LabView supported • Plug 'n play 	<ul style="list-style-type: none"> • High data speed • Long distance • Network topology • Exchangeable with other interfaces • Easy ModBus network integration • Plug 'n play 	<ul style="list-style-type: none"> • Industrial grade • High data speed • Medium distance • Bus topology • Exchangeable with other interfaces • PLC compatible 	<ul style="list-style-type: none"> • Medium distance • Exchangeable with other interfaces • SCPI supported • LabView supported • Low costs 	<ul style="list-style-type: none"> • SCPI supported • Very easy setup and integration • Unified support of different devices
Contra	<ul style="list-style-type: none"> • No plug 'n play on PC side • CAN software required • High overall costs 	<ul style="list-style-type: none"> • No plug 'n play on PC side • CANopen software required • High overall costs 	<ul style="list-style-type: none"> • Typical network issues • Complicated setup 	<ul style="list-style-type: none"> • ModBus TCP software required • Typical network issues • Complicated setup 	<ul style="list-style-type: none"> • No plug 'n play on PC side • Extra software required • High overall costs 	<ul style="list-style-type: none"> • Low data speed • One RS232 port required per device • No bus, no network 	<ul style="list-style-type: none"> • Short distance • Very high costs • Built-in • Complicated cable system

Digital communication topologies

Bus



Pro:

- Separate communication channels realisable
- Short cables
- Broadcast messages (one command to all bus members) possible

Contra:

- If the connection from the PC to the first units is interrupted, all other units are offline as well

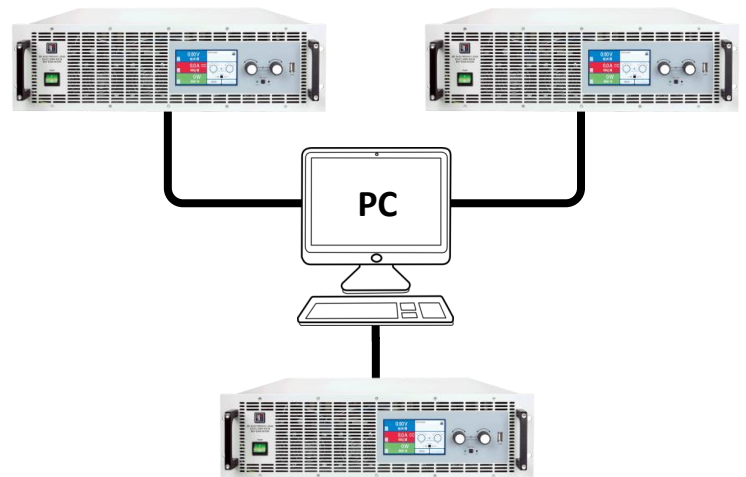
Typical area of use:

- Parallel connection of multiple identical models

Which of our interfaces use a bus connection :

- CAN, CANopen, Profibus, GPIB

Point-to-point



Pro:

- Every target device has its separate communication line

Contra:

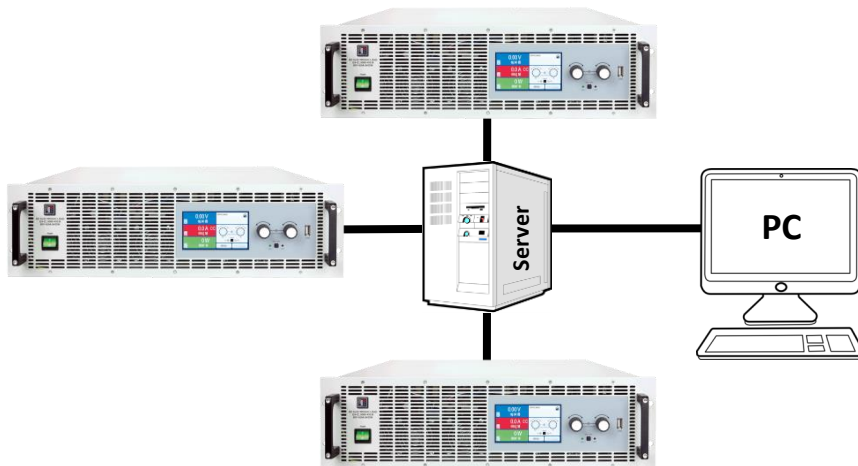
- Much cabling required, one line for every device
-

Typical area of use:

- Connection to only one device or a few devices or situations where it is required to change the setup very often
- Laboratory and on-desk test applications

Which of our interfaces use a point-to-point connection:

- USB, RS232



Pro:

- Very long distances
- Many devices easily integrateable
- Low costs

Contra:

- Very much cabling
- Communication and reliability is very much depending on network hardware like switches or patch panels

Typical area of use:

- Parallel connection of multiple identical models or test applications of single devices with direct connection to PC or local network switch

Which of our interfaces use a network connection:

- Ethernet, Profinet IO, ModBus TCP

Note: Ethernet interfaces with 2 port incorporate a network switch and can turn a network line into a bus with open end or, for higher dropout safety, into a ring. No matter how many devices are connected in that bus/ring, at the point where they are connected to the network, it requires a max. of two ports on a higher level switch.