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# Manual for the XXL/R/S product line



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ComPoint-LAN-XXL



ComPoint-WLAN-XXR



AK-DinRail-XXL



AK-DinRail-XXR



EVA-Kits



XT-NANO-XXL/SXL



XT-PICO-XXL/SXL



XT-FEMTO-SXL



AK-RailPort-XXR



AK-RailPort-XXL



XT-Micro-C-SXL



ConLine-V24-XXL/SXL



NetCon-SXL-USB

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# ConLine-V24-XXL

## ConLine-V24-XXL



## Technical description

<b>Current consumption:</b>	5 Volt / about 200 mA
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast.
<b>Connections:</b>	1 x RS232 9-pole Sub-D plug or jack
<b>Serial settings:</b>	up to 1Mbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 20KB Flash drive, Flash-File-System, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client

# ConLine-V24-SXL

## ConLine-V24-SXL

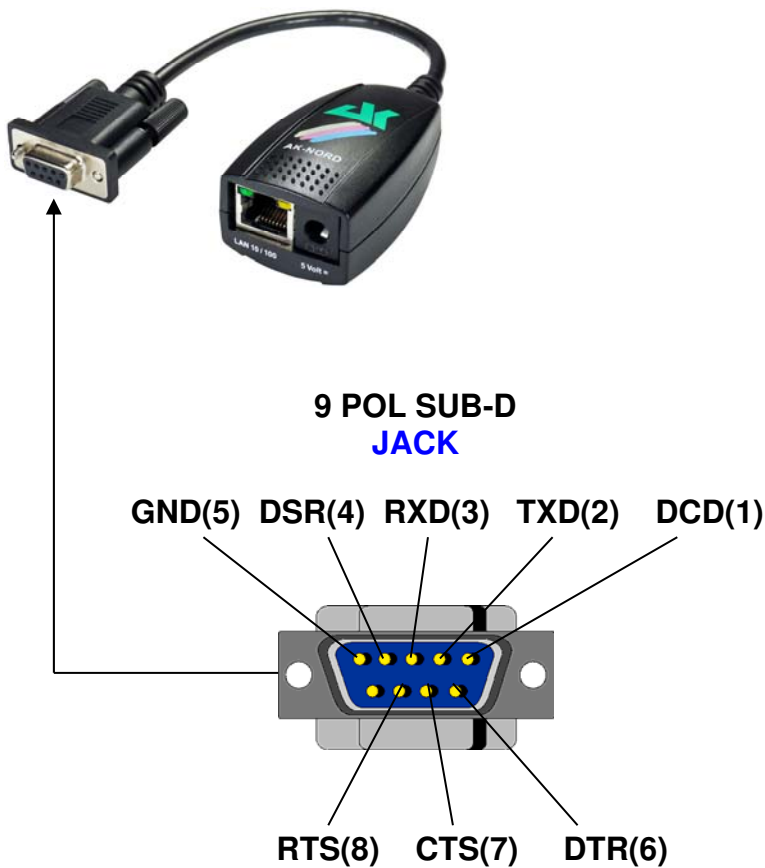
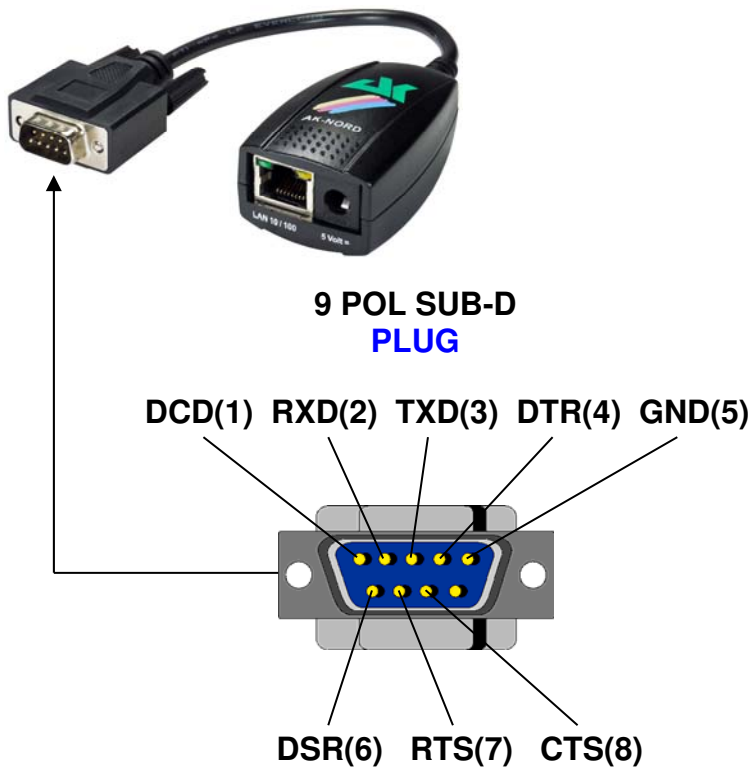


## Technical description

<b>Current consumption:</b>	5 Volt / about 200 mA
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast, AKM2M, SSL3.0, TLS1.0, TLS1.1, TLS1.2.
<b>Connections:</b>	1 x RS232 9-pole Sub-D plug or jack
<b>Serial settings:</b>	up to 1Mbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 512KB Flash drive, Flash-File-System, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client, M2M

# ConLine-V24-XXL/SXL

## Description of the RS232 – V24 interface





# ComPoint-LAN-XXL

## ComPoint-LAN-XXL

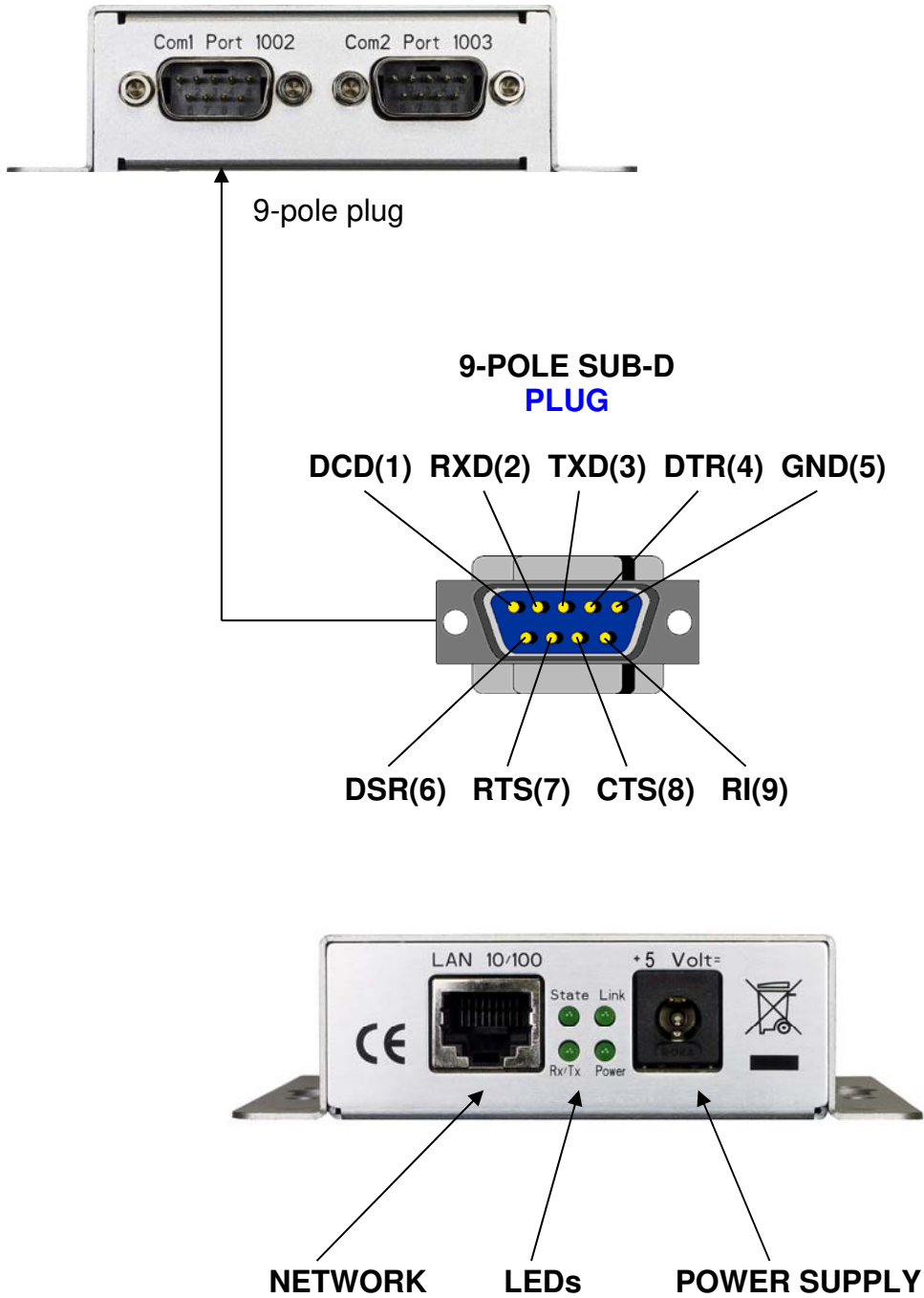


## Technical description

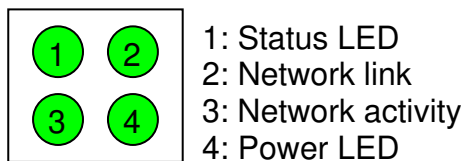
<b>Dimensions:</b>	100 x 28 x 110 mm (WxHxL)
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Current consumption:</b>	<b>5-6Volt</b> / about 270 mA
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45 (optional with PoE)
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast.
<b>Connections:</b>	2 x RS232 / RS485 9-pole Sub-D plug, SD card
<b>Serial settings:</b>	up to 1Mbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 20KB Flash drive, Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client

# ComPoint-LAN-XXL

## Description of the RS232 – V24 interface

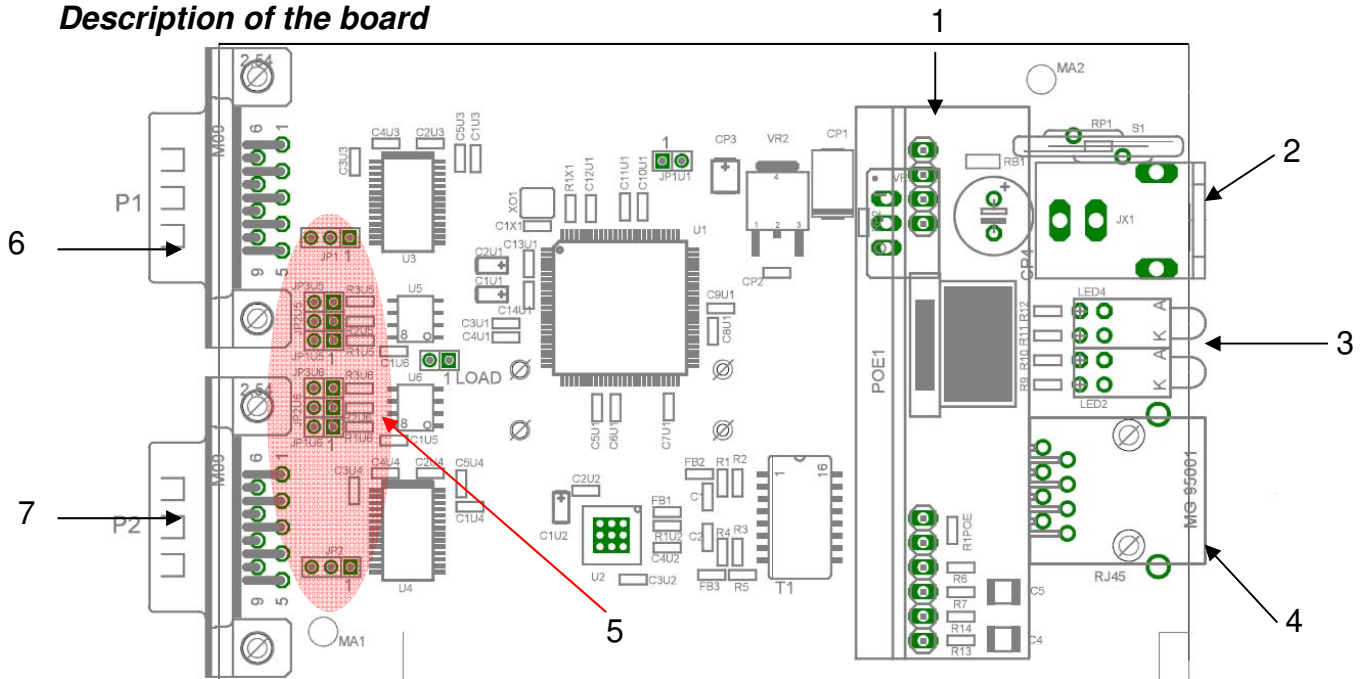


LEDs (view from the front)

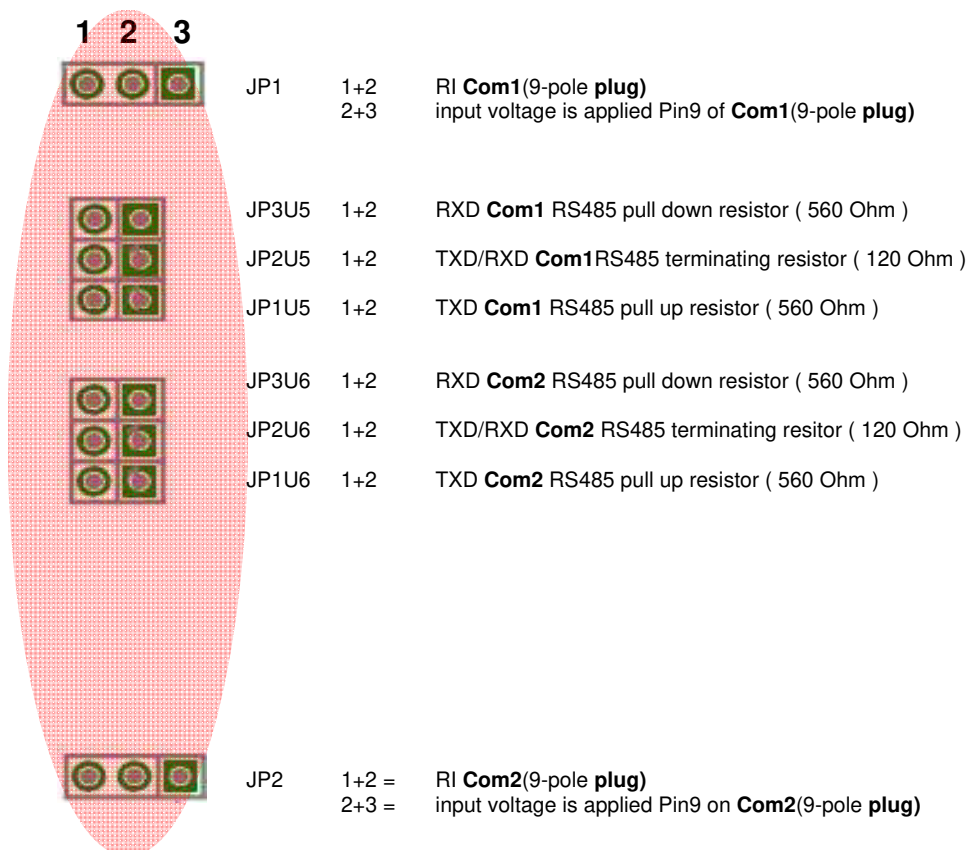


# ComPoint-LAN-XXL

## Description of the board



1	Extension slot (PowerOverEthernet)
2	Power supply
3	LEDs
4	RJ45 jack (Lan)
5	Jumperblocks for COM1 / COM2)
6	COM1
7	COM2



# NetCon-SXL-USB

## NetCon-SXL-USB



Front with power supply connector



Front with PowerOverEthernet



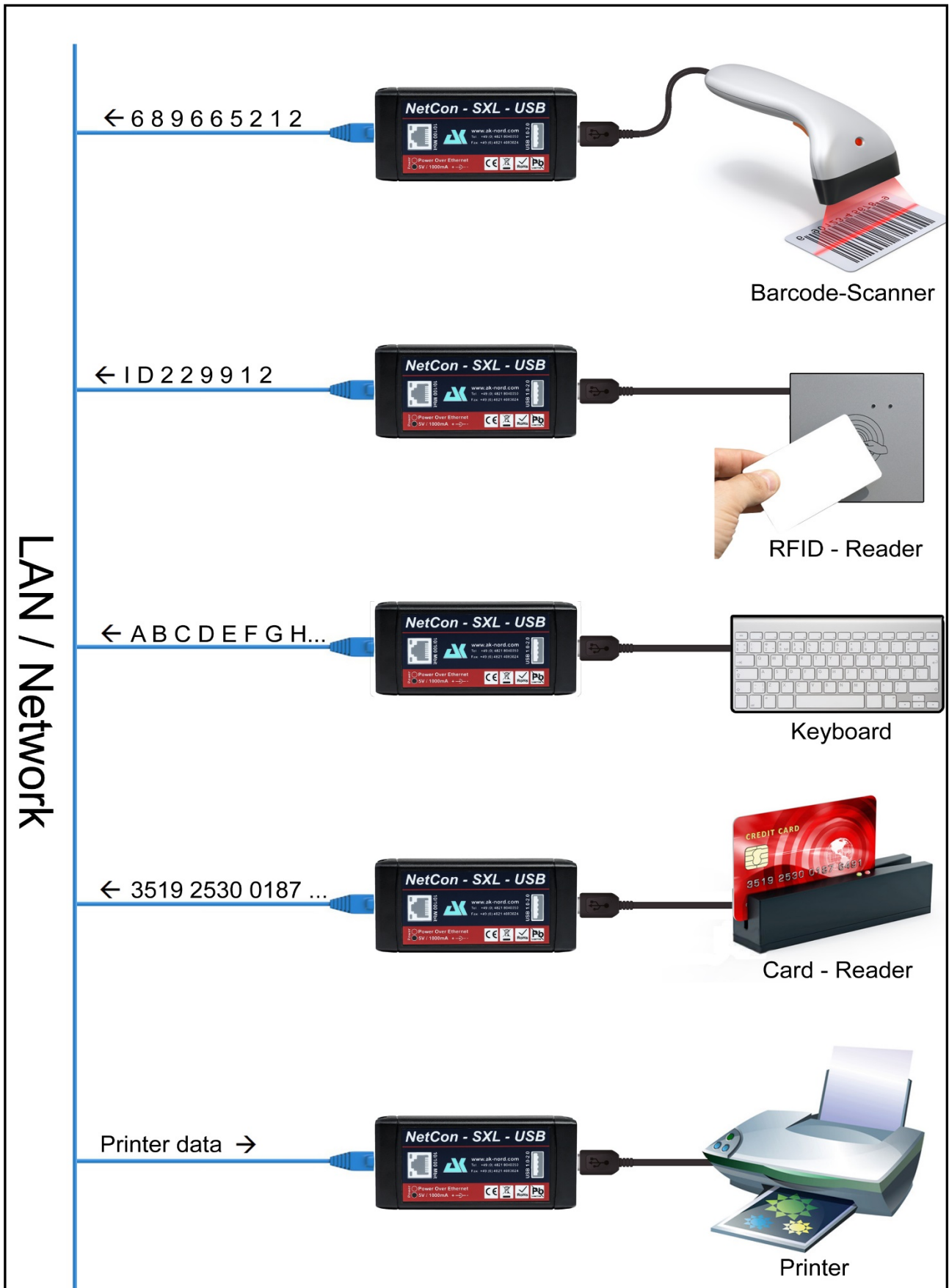
Rear side with USB connector

## Technical description

<b>Dimensions:</b>	40 x 21 x 82 mm (WxHxL)
<b>Temperature range:</b>	-40°C .. + 85°C
<b>Weight:</b>	37 Gramms
<b>Power supply:</b>	Switching power supply 5Volt, 2A (NetCon-SXL-USB-NT) PowerOverEthernet IEEE802.3af (NetCon-SXL-USB-POE)
<b>Current consumption:</b>	<b>5 Volts</b> / ca. 200 mA
<b>Network connections:</b>	1 x Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast, AKM2M, SSL3.0, TLS1.0, TLS1.1, TLS1.2.
<b>Connections:</b>	1 x USB-A Jack (USB1.0, USB1.1, USB2.0)
<b>Connection - Functions:</b>	<b>Host Mode</b> <b>Class 03 HID</b> <b>Class 07 Printer</b> <b>Class 09 Hub</b>
<b>Special features:</b>	Connect-On-Data, Auto-Connect, DYNDNS-Client, FTP-Server, LPR-Server, 512KB Flashdrive, Flash-File-System, E-Mail-Client, TCP/UDP-Client, TCP/UDP-Server, SYSLOG-Client, AKM2M

# NetCon-SXL-USB

## Connection options:



# XT-MICRO-C-SXL

## XT-MICRO-C-SXL



## Technical description

<b>Current consumption:</b>	5 Volts / ca. 200 mA
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Connections:</b>	1 x 36 Pol Centronics Stecker IEEE 1284
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast, AKM2M, SSL3.0, TLS1.0, TLS1.1, TLS1.2.
<b>Special features:</b>	Power supply via pin 18 of the printer possible

# AK-DinRail-XXL

## AK-DinRail-XXL



## Technical description

<b>Dimensions:</b>	22.5 x 120 mm(WxH)
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Current consumption:</b>	<b>7-32 volts / 0,96 watt</b>
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP ,ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast.
<b>Connections:</b>	2 x RS232 9 Pole Sub-D Plug 2 x RS485 1 x Power supply 1 x SD-Card Holder
<b>Serial settings:</b>	up to 1Mbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 20KB Flash drive , Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client

# AK-DinRail-XXL

## Description and terminal assignment

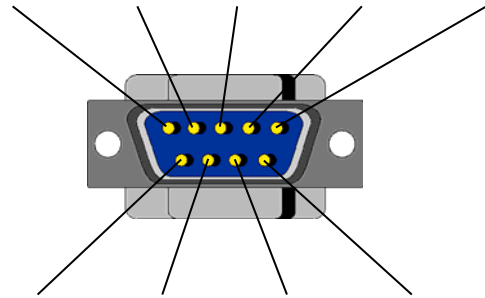


← RS232 interface 2  
Port 1003

← RS232 interface 1  
Port 1002

### RS232 connections

DCD(1) RXD(2) TXD(3) DTR(4) GND(5)



DSR(6) RTS(7) CTS(8) RI(9)



← Network

← RS485 connection 2  
Port 1003

← RS485 connection 1  
Port 1002

← Power supply

### RS485 connections

Ground / GND	
RS485+ / RS485-A	
RS485- / RS485-B	

### Power supply

Shield	
+ 7-32 VDC 0,96 watt	
- 7-32 VDC 0,96 watt	



← SD card holder

← LED

← DIP switch RS485  
Termination, Pullup, Pulldown

- Power LED
- Network link
- Network activity
- Status LED



# AK-RailPort-XXL

## AK-RailPort-XXL



## Technical description

<b>Dimensions:</b>	87 x 62 mm(WxH)
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Current consumption:</b>	<b>7-32 volts / 0,96 watt</b>
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP ,ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, IEEE802.1x, ZeroConfig(AutoIP), IP-Multicast.
<b>Connections:</b>	2 x RS232 9 Pole Sub-D Plug 2 x RS485 1 x Power supply 1 x SD-Card Holder
<b>Serial settings:</b>	up to 1Mbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 20KB Flash drive , Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client

# AK-RailPort-XXL

## Description and terminal assignment

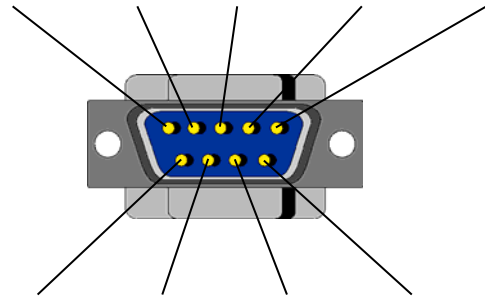


RS232 interface 1  
Port 1002

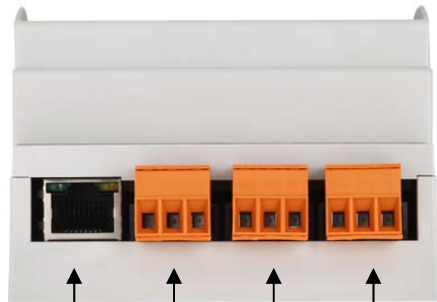
RS232 interface 2  
Port 1003

### RS232 connections

DCD(1) RXD(2) TXD(3) DTR(4) GND(5)



DSR(6) RTS(7) CTS(8) RI(9)



Network

RS485 connection 2  
Port 1003

RS485 connection 1  
Port 1002

Power supply

### RS485 connections

Ground / GND	
RS485+ / RS485-A	
RS485- / RS485-B	

### Power supply

Shield	
+ 7-32 VDC 0,96 watt	
- 7-32 VDC 0,96 watt	



SD card holder

DIP switch RS485  
Termination, Pullup, Pulldown

- 1 Power LED
- 2 Network link
- 3 Network activity
- 4 Status LED

# ComPoint-WLAN-XXR

## ComPoint-WLAN-XXR

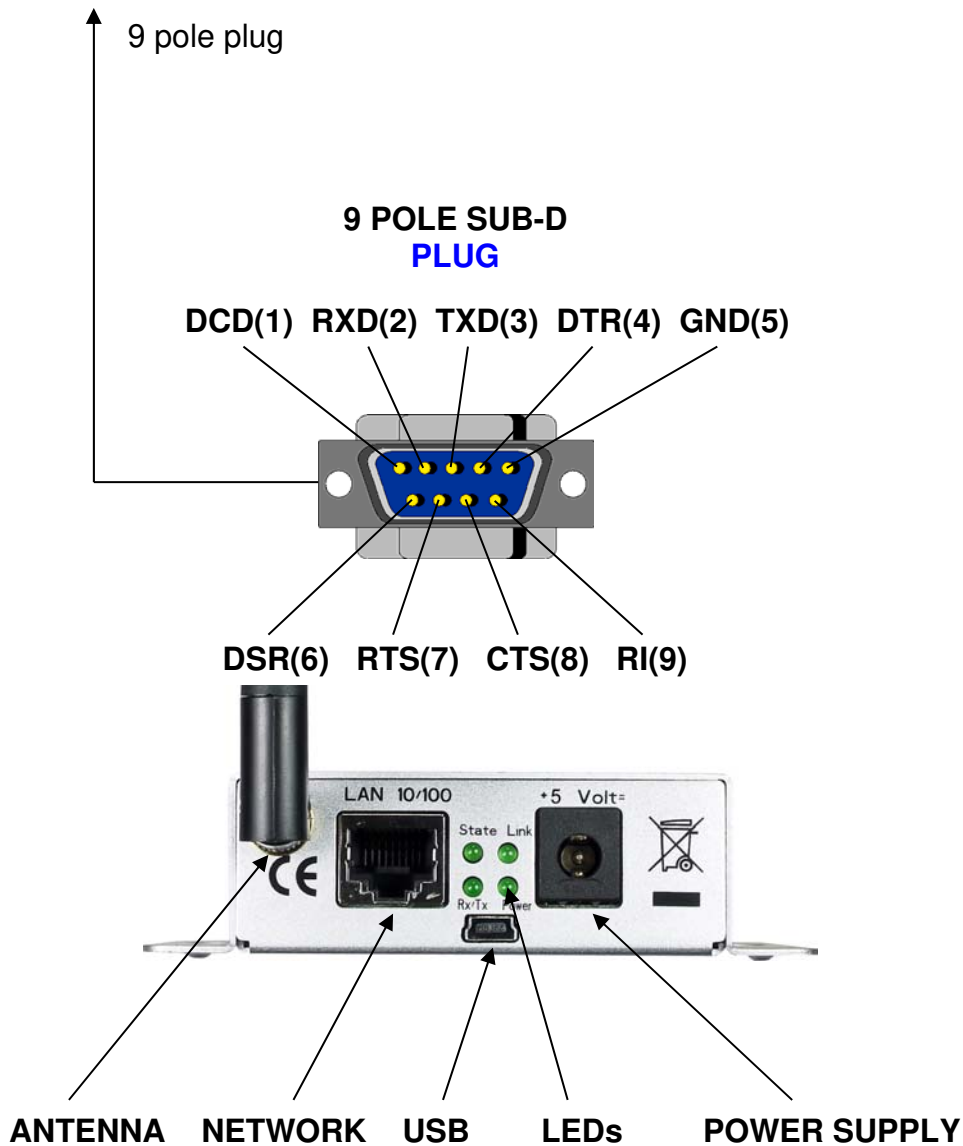


## Technical description

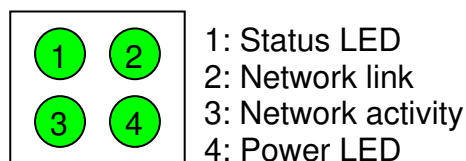
<b>Dimensions:</b>	100 x 28 x 110 mm (WxHxL)
<b>Temperature range:</b>	-40°C .. + 70°C
<b>Current consumption:</b>	5-6Volt / ca. 380 mA
<b>Wireless LAN (WLAN)</b>	<b>Features</b> <b>ADHOC / INFRA – Modus</b> <b>Fast-Roaming</b> <b>AutoConnection</b> with Wi-Fi Protected Setup (WPS-PBC) Hardware <b>WEP, TKIP, AES</b> Engine WEP 64Bit and 128Bit up to 4 Keys <b>IEEE802.11b:</b> 1, 2, 5.5, 11Mbps <b>IEEE802.11g:</b> 6, 9, 12, 24, 36, 48, 54Mbps <b>IEEE802.11n:</b> (Draft 3.0) up to 150Mbps legacy, mixed and green field modes, supports 20/40 MHz band width MCS0- 7 (150Mbps PHY rate support) <b>IEEE802.11d:</b> World Mode (US, CA, EU, JP) <b>IEEE802.11e:</b> Wi-Fi WMM-QoS "Quality of Service" Wi-Fi WMM-PS "Power Save" <b>IEEE802.11h:</b> DFS (Dynamic Frequency Selection) TPC (Transmission Power Control) <b>IEEE802.11i:</b> WPA1 and WPA2 Personal. <b>IEEE802.11j:</b> Operation in Japan
<b>Network connections:</b>	Ethernet 10/100MBit ( <b>MDIX</b> ) RJ45
<b>Network speeds:</b>	10/100 MBit Full/Half Duplex
<b>Network protocols:</b>	IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, IEEE802.1x, DYNDNS, SMTP, POP3, SYSLOG, ZeroConfig(AutoIP), IP-Multicast.
<b>Connections:</b>	2 x RS232 / RS485 9-pole Sub-D plug, SD card
<b>Serial settings:</b>	up to 230Kbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 2MB Flash drive, Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client:

# ComPoint-WLAN-XXR

## Description of the RS232 – V24 interface

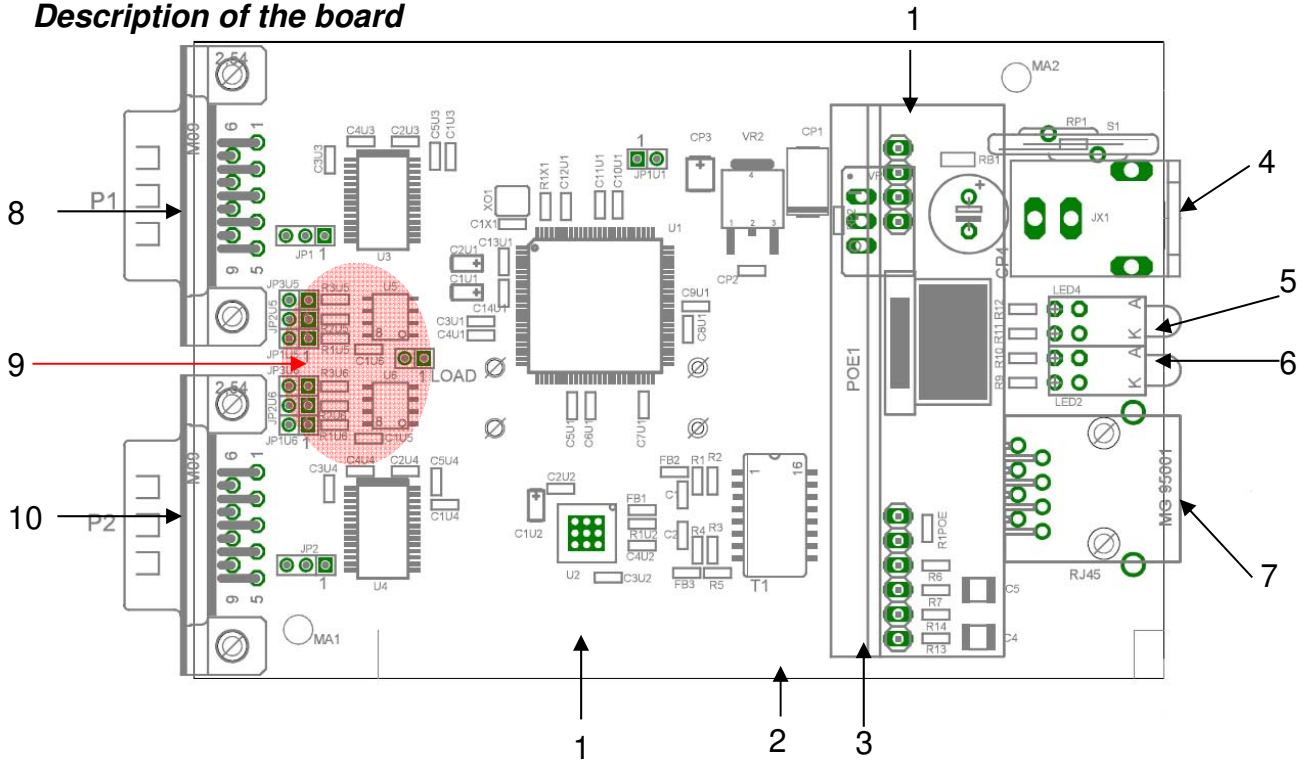


LEDs (view from the front)

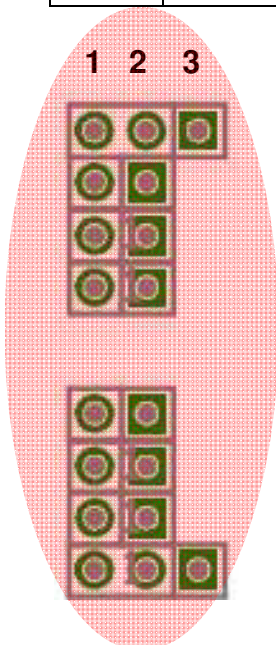


# ComPoint-WLAN-XXR

## Description of the board



1	WLAN Extension slot
2	MicroSD-Card holder (bottom side)
3	PowerOverEthernet Extension slot
4	Power supply
5	LEDs
6	USB Configuration connector ( bottom side )
7	RJ45 Configuration connector (Ethernet)
8	COM1
9	Jumperblocks for COM2 (JP2 and JP1U6-JP3U6)
10	COM2



JP1	1+2 2+3	RI <b>Com1</b> (9-pole <b>plug</b> ) input voltage is applied Pin9 on <b>Com1</b> (9-pole <b>plug</b> )
JP2	1+2	TXD <b>Com1</b> RS485 pull up - resistor ( 560 Ohm )
JP3	1+2	TXD/RXD <b>Com1</b> RS485 terminating resistor ( 120 Ohm )
JP4	1+2	RXD <b>Com1</b> RS485 pull down resistor ( 560 Ohm )
JP5	1+2	TXD <b>Com2</b> RS485 pull up - resistor ( 560 Ohm )
JP6	1+2	TXD/RXD <b>Com2</b> RS485 terminating resistor ( 120 Ohm )
JP7	1+2	RXD <b>Com2</b> RS485 pull down - resistor ( 560 Ohm )
JP8	1+2 2+3	RI <b>Com2</b> (9-pole <b>plug</b> ) input voltage is applied Pin9 on <b>Com2</b> (9-pole <b>plug</b> )

# AK-DinRail-XXR

## AK-DinRail-XXR



## Technical description

**Dimensions:** 35 x 120 mm(WxH)

**Temperature range:** -40°C .. + 70°C

**Current consumption:** 7-32 volts / 2,2 watt

### Wireless LAN (WLAN)

#### Features

**ADHOC / INFRA – Modus**

**Fast-Roaming**

**AutoConnection** with Wi-Fi Protected Setup (WPS-PBC)

Hardware **WEP, TKIP, AES** Engine

WEP 64Bit and 128Bit up to 4 Keys

**IEEE802.11b:** 1, 2, 5.5, 11Mbps

**IEEE802.11g:** 6, 9, 12, 24, 36, 48, 54Mbps

**IEEE802.11n:** (Draft 3.0) up to 150Mbps

legacy, mixed and green field modes, supports 20/40

MHz band width MCS0- 7 (150Mbps PHY rate support)

**IEEE802.11d:** World Mode (US, CA, EU, JP)

**IEEE802.11e:** Wi-Fi WMM-QoS "Quality of Service"

Wi-Fi WMM-PS "Power Save"

**IEEE802.11h:** DFS (Dynamic Frequency Selection)

TPC (Transmission Power Control)

**IEEE802.11i:** WPA1 and WPA2 Personal.

**IEEE802.11j:** Operation in Japan

**Network connections:** Ethernet 10/100MBit (**MDIX**) RJ45

**Network speeds:** 10/100 MBit Full/Half Duplex

### Network protocols:

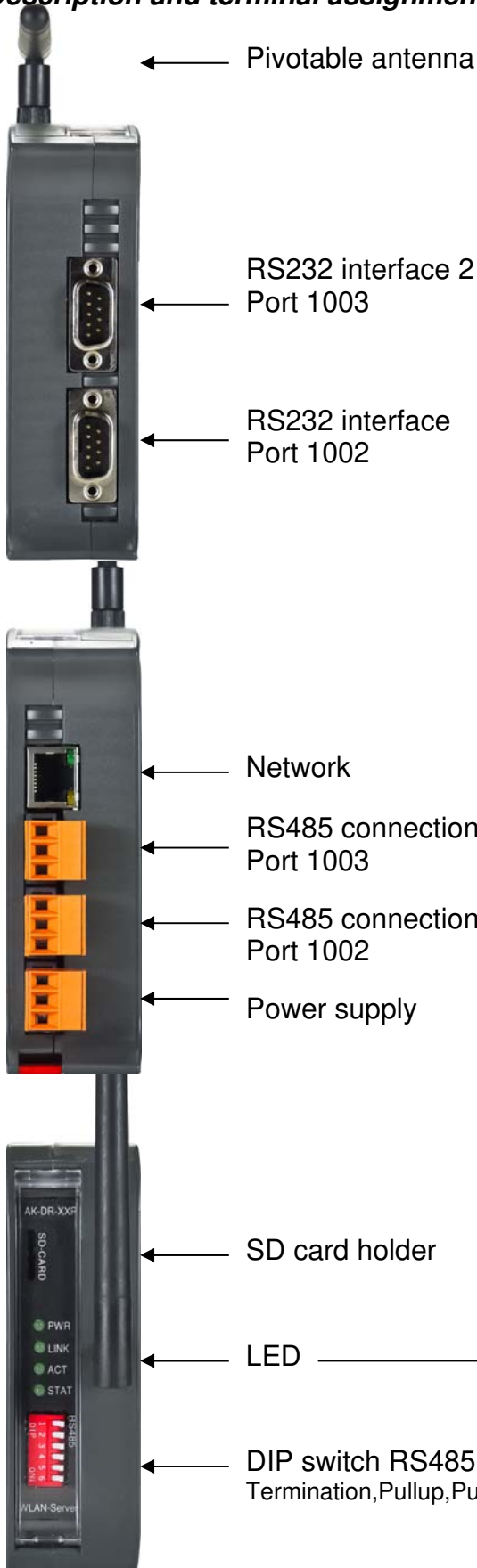
IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, ZeroConfig(AutoIP), IEEE802.1x, IP-Multicast.

# AK-DinRail-XXR

<b>Connections:</b>	2 x RS232 9 Pole Sub-D Plug 2 x RS485 1 x Power supply 1 x SD-Card Holder
<b>Serial settings:</b>	up to 230Kbaud, 7 or 8bits, Odd, Even, Mark, Space, None Parity
<b>Signals:</b>	RS232 = TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND RS485 = TXD, RXD, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 2MB Flash drive, Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP – IEEE802.1x, Server, SYSLOG-Client:

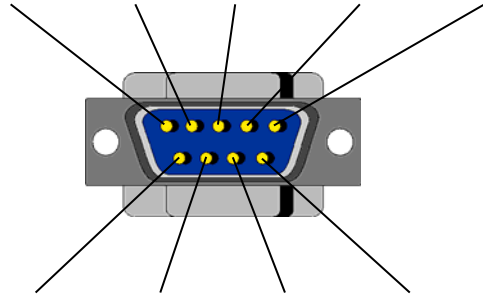
# AK-DinRail-XXR

## Description and terminal assignment



### RS232 connections

DCD(1) RXD(2) TXD(3) DTR(4) GND(5)



DSR(6) RTS(7) CTS(8) RI(9)

### RS485 connections

Ground / GND	
RS485+ / RS485-A	
RS485- / RS485-B	

### Power supply

Shield	
+ 7-32 VDC 2,2 watt	
- 7-32 VDC 2,2 watt	

- Power LED
- Network link
- Network activity
- Status LED



# AK-RailPort-XXR

## AK-RailPort-XXR



## Technical description

**Dimensions:** 87 x 62 mm(WxH)

**Temperature range:** -40°C .. + 70°C

**Current consumption:** 7-32 volts / 2,2 watt

### Wireless LAN (WLAN)

#### Features

**ADHOC / INFRA – Modus**

**Fast-Roaming**

**AutoConnection** with Wi-Fi Protected Setup (WPS-PBC)

Hardware **WEP, TKIP, AES** Engine

WEP 64Bit and 128Bit up to 4 Keys

**IEEE802.11b:** 1, 2, 5.5, 11Mbps

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**Network speeds:** 10/100 MBit Full/Half Duplex

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IPv4, IPv6, TCP, TCPv6, UDP, UDPv6, FTP, TFTP, ICMP, ICMPv6, ARP, NDP, SNMP, LPR, DHCP, DHCPv6, Netbios-NS, LLMNR, BOOTP, DNS, TELNET, HTML, DYNDNS, SMTP, POP3, SYSLOG, ZeroConfig(AutoIP), IEEE802.1x, IP-Multicast.

# AK-RailPort-XXR

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<b>Signals:</b>	RS232 = TXD, RXD, RTS, CTS, DSR, DTR, DCD, RI, GND RS485 = TXD, RXD, GND
<b>Special features:</b>	Modem Emulation, Connect-On-Data, Auto-Connect, Tunnel-Mode, DYNDNS-Client, FTP-Server, FTP-Client, LPR-Server, 2MB Flash drive, Flash-File-System, SD- and DF-CARD, E-Mail – Client, TCP/UDP –Client, TCP/UDP –Server, SYSLOG-Client: