



## FEATURE HIGHLIGHTS

- Remotely monitor, manage, and control industrial field devices
- Industrial EMC protection, wide temperature operation, -40°C to +85°C
- 2 Fast-Ethernet ports or 2x 100/1000 SFP slots with RSTP Redundancy
- 4 Software-selectable RS-232/RS-485/RS-422 serial ports, up to 921kbps
- TCP Server/Client, UDP, Virtual COM and Tunneling modes supported
- Embedded security with PPTP, IPsec or OpenVPN client/server
- Isolated Redundant 12~48 VDC Power Inputs or powered (PoE models) through through the Ethernet cable (802.3af)
- Configuration via Web Browser/ Serial Console/ Telnet/ Windows Utility
- Rugged metal case with wall or DIN-Rail mount

## PRODUCT DESCRIPTION

### Make Serial Devices Ready to the Network

The Industrial Serial Device Server SE5904D is a cost effective gateway for Ethernet (TCP/IP) and serial signal communications; allowing almost any serial device to be connected to a new or existing Ethernet network. By encapsulating serial data and transporting it over Ethernet, SE5904D offers full-duplex and bi-directional data seamlessly between the four serial ports and the Ethernet network, through 2x 10/100 Ethernet ports or 2x 100/1000 SFP Fiber slots.

### Embedded Security and advanced features

SE5904D embeds OpenVPN and IPsec VPN, that allows you to tunnel your data securely through the internet and prevent unauthorized control of your Serial Devices by malicious people. The integrated Rapid Spanning Tree Protocol (RSTP), allows you to add a backup Ethernet link in the event the primary one fails.

### Easy to Use

Flexible configuration options enable this unit to be setup over Ethernet by Telnet, Web Browser, Serial Console, or our Windows Utility. Packed in a rugged metal housing for wall or DIN-Rail mount with redundant 12-48 VDC wide range power input and one relay output, SE5904D is ideal for almost any industrial and manufacturing automation process. ATOP Virtual COM software provides a virtual environment for applications when accessing SE5904D through TCP.

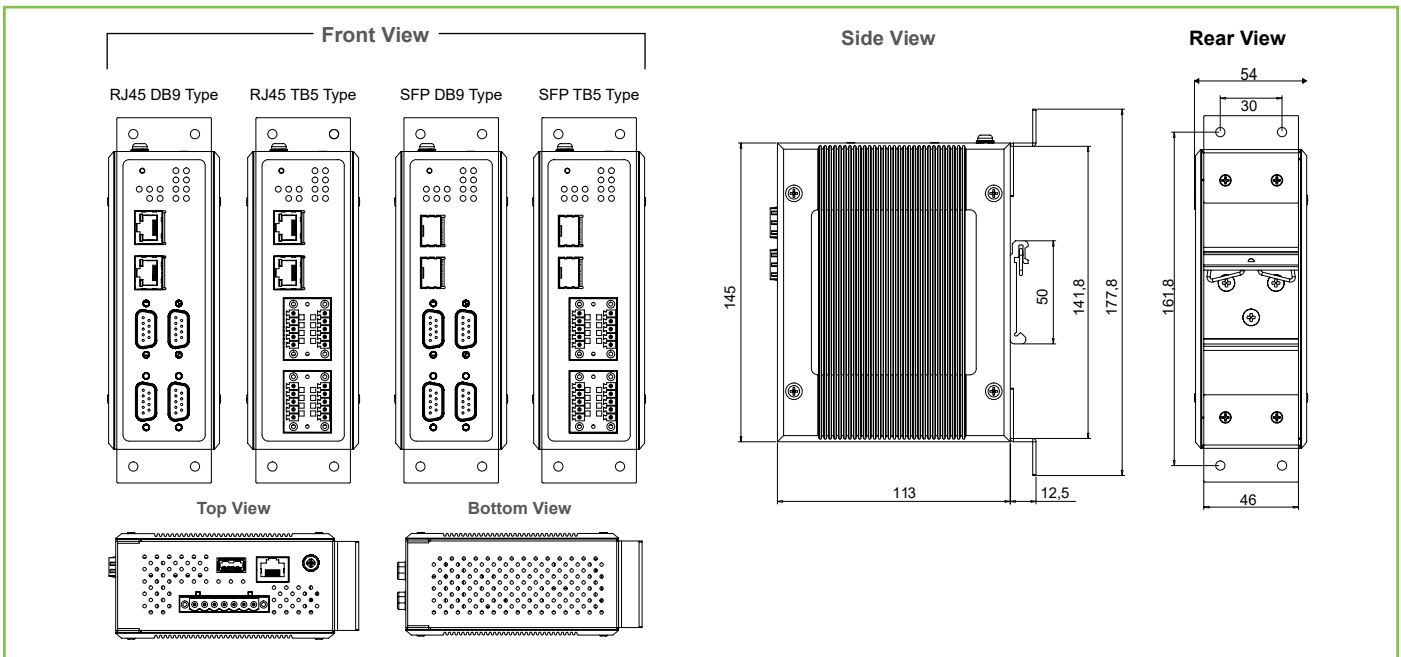
### Specially Designed for Automation Fields and Harsh Environments

In industrial and manufacturing automation fields, SE5904D is used as a field device to connect the Ethernet through TCP/IP protocol directly. It is also specially designed for conjunction with PLCs, HMIs, Barcode Scanners, Data Terminals, and much more..Its design protects it from very harsh EMC and environmental conditions, making it a cost-effective choice for advanced applications

### Rugged and flexible for advanced developments

SE5904D embeds *high EMC protection, wide temperature operation*, programming and installation flexibility in one device. PoE versions can be powered through Power-over-Ethernet (PoE 802.3af), without additional cabling and power supply.

## DIMENSIONS & LAYOUT



## SPECIFICATIONS

Technical Specifications	
Model Name	SE5904D
Network interface	
Supported Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseT(X) IEEE 802.3u for 100Base-X IEEE 802.3z for 1000Base-X (SFP version only)
Power over Ethernet	IEEE 802.3af for Power over Ethernet (PD) - PoE version only
LAN Mode	Dual Subnets or RSTP Redundancy
Connector ports	2x 10/100BASE-T(X) RJ-45 or 2x 100/1000 Base-X SFP Slots (SFP version)
Serial Interface	
Connector	4x D-Sub9 RS-232/422/485 software selectable (DB models) or 4x 5.08mm 5-Pin Terminal block RS-232/422/485 sw selectable (TB models)
Baud Rate	1,200 ~ 921,600 bps software selectable
Data Bits	7, 8 software selectable
Stop Bits	1, 2 software selectable
Flow Control	None, Xon/Xoff, RTS/CTS
Isolation	3kV (Sis versions only)

USB interface	
Universal Serial Bus	1x USB A Type connector (USB 2.0)
Power	
Input Voltage Input Current (@ 12VDC) Power Consumption Power Redundancy Reverse Polarity Protection	Dual 12 - 48VDC (non-PoE Models); or through Ethernet Cable (PoE versions) 0.65 A Approximately 8 W (Max) Yes Yes
Connector	7-Pin 5.08mm Lockable Terminal Block
Relay Output	1A @ 30 VDC (normal open)
Physical Characteristics	
Housing Dimension (W x H x D) Weight Installation Reset Button	IP30 SPCC housing 55 x 145 x 113 mm 1000 g DIN-Rail, Wall mount (optional kit) Yes
Environmental Limits	
Operating Temperature Storage Temperature Ambient Relative Humidity	-40°C to +85°C (-40°F to +185°F) -40°C to +85°C (-40°F to +185°F) 5% to 95%, 55°C (Non-condensing)
Software	
Protocols	IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1,v2c,v3, HTTP, HTTPS, Telnet, SMTP/TLS, RFC2217, 802.1D-2004 RSTP, Security through PPTP, OpenVPN (client/server), IPsec (host-to-host/host-to-side), up to 37.9Mbps throughput.
Configuration	ATOP Management Utility, Web UI, Telnet
VirtualCOM	Windows/Linux redirection software
Link Modes	
TCP Client	Single destination or VirtualCOM
TCP Server	4 Connections; VirtualCOM or reverse Telnet
UDP	Up to 4 Ranges IP

## REGULATORY APPROVALS

Regulatory Approvals				
Safety	UL61010-2-201/ EN62368-1			
EMC	FCC Part 15, Subpart B, Class A EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4			
Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge	±8kV	4
		Air Discharge	±15kV	4
IEC 61000-4-3	RS	Radiated (enclosure)	10 V/m	3
IEC 61000-4-4	EFT	AC Power Port	±2.0KV	3
		Signal Port	±2.0KV	4
IEC 61000-4-5	Surge	AC Power Port	Line-to Line±1.0KV	3
		AC Power Port	Line-to Earth±2.0KV	3
		Signal Port	Line-to Earth±2.0KV	3
IEC 61000-4-6	CS	Conducted (enclosure)	10 V rms	3
IEC 61000-4-8	PFMF	Enclosure	10 A/m	3
IEC 61000-4-11	DIP	Power Port	-	-
Shock Drop (Freefall) /Vibration	IEC 60068-2-27 IEC 60068-2-32 /IEC 60068-2-64			
RoHS II	Yes			
MTBF	14.56 Years (according to MIL-HDBK-217F)			
Warranty	5 years			

## ORDERING INFORMATION

Ordering information				
Model name	Part Number	Description		
2kV Isolated	1P1SE5904D0004G	Ind. 4-Port Serial Device Server, 10/100BASET(X), DB9	2 (RJ45)	4 (DB9)
SE5904D-4P-TB	1P1SE5904D0005G	Ind. 4-Port Serial Device Server, 10/100BASET(X), TB5	2 (RJ45)	4 (TB)
SE5904D-4P-Sis	1P1SE5904D0006G	Ind. 4-Port Ser. Dev. Serv, 10/100BASET(X), 2kV Isolated	2 (RJ45)	4 (TB)
SE5904D-4P-PoE-DB	Contact Headquarter	Ind. 4-Port Ser. Dev. Serv, 10/100BASET(X)with PoE, DB9	2 (RJ45)	4 (DB9)
SE5904D-4P-PoE-TB	Contact Headquarter	Ind. 4-Port Ser. Dev. Serv, 10/100BASET(X)with PoE, TB5	2 (RJ45)	4 (TB)
SE5904D-4P-PoE-Sis	Contact Headquarter	Ind. 4-Port Ser. Dev. Serv, RJ45, PoE, 2kV Isolated	2 (RJ45)	4 (TB)
SE5904D-4P-G-DB-SFP	1P1SE5904DG001G	Ind. 4-Port Ser. Device Server, 100/1000BASEX SFP, DB9	2 (SFP)	4 (DB9)
SE5904D-4P-G-TB-SFP	1P1SE5904DG002G	Ind. 4-Port Serial Device Server, 100/1000BASEX SFP, TB5	2 (SFP)	4 (TB)
SE5904D-4P-G-Sis-SFP	1P1SE5904DG003G	Ind. 4-Port Serial Serv, 100/1000BASEX SFP, 2kV Isolated	2 (SFP)	4 (TB)
wSDK version	Contact Headquarter	SDK programmable version available upon request	2	4

## Optional Accessories

Model name	Part Number	Description
SDR-75-24	50500752240001G	75W/3.2A DIN-Rail 24VDC power supply with 88~264VAC / 124~370VDC input
CBL-RJ45(8P)-DB9(F)-90-C	50891971G	8-pin RJ45-DB9 debug cable, 90cm
GDC-120	59906861G	120mm copper woven grounding cable
ADP-DB9(F)-TB5	59906231G	Female DB9 to Female 3.81mm TB5 Converter
WMK-450-Black	70100000000052G	Aluminum wall mount kit
AXGD-5854-0513	522AXGD5854001G	SFP Transceiver, 1250Mbps, 850nm, Multi-mode, 550m, 3.3V, -40°C to +85°C, DDMI
AXGD-1354-0523	522AXGD1354001G	SFP Transceiver, 1250Mbps, 1310nm, Multi-mode, 2km, 3.3V, -40°C to +85°C, DDMI
AXGD-1354-0533	522AXGD1354011G	SFP Transceiver, 1250Mbps, 1310nm, Single-mode, 10km, 3.3V, -40°C to +85°C, DDMI
AXGD-3354-0593	522AXGD3354001G	SFP Transceiver, 1250Mbps, 1310nm, Single-mode, 40km, 3.3V, -40°C to +85°C, DDMI