

SELECTING AN ETHERNET TO SERIAL CONVERTER FOR YOUR NEXT PROJECT

Use the selection tables on p2 to quickly narrow your search for an Ethernet to Serial Converter that best suits your next project. Below are a few helpful questions to help narrow the selection:

- **How many serial ports do you need?**
 - B+B SmartWorx offers 1, 2, 4, and 6 port solutions
- **What is the serial data type of the device you are connecting too?**
 - RS-232
 - RS-422/RS-485 (2-wire or 4-wire connections)
 - Current Loop
- **Does the application need to support Modbus protocol?**
- **What about the Ethernet connection?**
 - One Ethernet port will get the job done.
 - Two Ethernet ports may eliminate the need for an Ethernet switch.
 - A fiber port may eliminate the need of a media converter at a remote location.
 - What about a WiFi interface? This is a great choice for any application that requires mobility.
- **Should serial isolation be considered to help protect against surges, spikes and grounding issues?**
- **What about the physical serial connector – is a DB9 or a Terminal Block preferred?**
 - Most prefer a DB9 for an RS-232 connection and a Terminal Block for RS-422/485 connections.
- **What mounting option best suites the application?**
 - DIN rail mountable? (good for in-cabinet designs)
 - Panel mountable? (use on a desktop or flat panel mounted)
 - 19-inch rack?
- **What environmental or safety aspects should be considered?**
 - Are there any temperature concerns based on where the Ethernet to Serial converter will be located?
 - Is a UL Class 1/Division 2 rating required for the application?
 - Are shock, vibration or drop testing specifications required for the application?
- **Once you have a product selected, you should ask just a few more questions:**
 - Do you have all the accessories needed to make the needed connections?
 - Cables, Power Supplies, Cabinets, Surge Protection? Ethernet Switches or other Ethernet Infrastructure devices?
 - When do you need product or samples for proof of concept? When do you plan to go to full production?

Assistance

If you need additional product selection help, contact B+B SmartWorx technical support online chat at www-bb-elec.com.



PRODUCT ASSISTANCE

If you need product selection assistance, contact Advantech B+B SmartWorx technical support.

ETHERNET TO SERIAL CONVERTER

PRODUCT SELECTION GUIDE (continued)



Virtual COM Software								Modbus Protocol Support			
Series:	VESP21 I	VESR32 I	VESR900	VESR400	ESP906CL	ABDN-SE-DP55 I	ABDN-SE-IN	MESP21 I	MESR900	MESR32 I	MESR400
ETHERNET											
Copper Ports	1	2	1, 2	2	1	0	1	1	1, 2	2	2
Fiber Ports		Optional	Optional	Optional					Optional	Optional	Optional
WiFi Ports						1	1				
SERIAL											
Port Count	1	1	1, 2	4	6	1	1, 2	1	1, 2	1	4
DB9	232	232	232/422/485	232/422/485	232/422/485	232/422/485	232/422/485	232/422/485	232/422/485	232	232/422/485
Terminal Block	422/485	422/485	232/422/485	232/422/485	Current Loop			232/422/485	232/422/485	422/485	232/422/485
Isolation		2kV			Current Loop					2kV	
SPECIFICATIONS											
Temperature	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	0 to 40°C	-20 to 85°C	-40 to 85°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C
Power DC	10 to 30VDC	10 to 48VDC	10 to 48VDC	10 to 48VDC	5 & 36VDC	5VDC	5 to 36VDC	10 to 30VDC	10 to 48VDC	10 to 48VDC	10 to 48VDC
Power Supply Included	Yes, universal				Yes	Yes		Yes, universal			
Dual Power Inputs		TB & Barrel		TB & Barrel						TB & Barrel	TB & Barrel
Mounting	Panel	DIN/Panel	DIN	DIN/Panel	Panel	Desktop	Panel	Panel	DIN	DIN/Panel	DIN/Panel
19-inch Rack											
Class I/Division 2			Yes	Yes					Yes		Yes
MODEL/SKU#											
	VESP21 I	VESR32 I	VESR901	VESR424D	ESP906CL	ABDN-SE-DP55 I	ABDN-SE-IN5410	MESP21 I D	MESR901	MESR32 I	MESR424D
	VESP21 I-232	VESR32 I-ML	VESR902D	VESR424D-MC			ABDN-SE-IN5420	MESP21 I T	MESR902T	MESR32 I-ML	MESR424D-MT
	VESP21 I-485	VESR32 I-SL	VESR902T	VESR424D-MT					MESR921	MESR32 I-SL	MESR424D-SC
			VESR921	VESR424D-SC					MESR921-MC		MESR424T
			VESR921-MC	VESR424D-ST					MESR921-MT		MESR424T-MT
			VESR921-MT	VESR424T					MESR921-SC		MESR424T-SC
			VESR921-SC	VESR424T-MC					MESR921-ST		
			VESR922T	VESR424T-MT					MESR922T		
				VESR424T-SC					MESR922T-MC		
				VESR424T-ST					MESR922T-MT		
									MESR922T-SC		