

# Three-stage RS-232, RS-422/485 Surge Protectors

Models 485HESP, 422HESP, 232HESP

**B+B SMARTWORX**

Powered by

**ADVANTECH**

[www.advantech-bb.com](http://www.advantech-bb.com)



## PRODUCT FEATURES

- Three stages of protection on every data line
  - 1) Gas discharge tube
  - 2) Series resistor
  - 3) Transient voltage suppressor
- Protected signal ground connection
- Rugged terminal block connections
- Dedicated chassis ground lug

These three-stage surge protectors protect against lightning strikes, power surges, and other types of voltage disturbances with three stages of protection for each line: a gas discharge tube followed by a series resistor and finally a Transient Voltage Suppressor (TVS).

The surge protectors housed in a tough metal, panel mount case with a protected signal ground connection and dedicated chassis ground lug. In order to work properly, it is important to have a good connection between the #10 screws and a solid earth ground. Two terminal posts and two metal mounting brackets provide a good ground connection.

## Learn More About Surge Suppression & Isolation

These informative articles are available at [www.advantech-bb.com](http://www.advantech-bb.com):

- "Isolation: Your Best Investment for Reliability"
- "Dataline Isolation Theory"
- "Dataline Surge Protection"

## ORDERING INFORMATION

MODEL NUMBER	INTERFACE	LINES PROTECTED	MOUNTING
485HESP	RS-422/485	(3) RS-422/485	Panel Mount
422HESP	RS-422/485	(5) RS-422/485	Panel Mount
232HESP	RS-232	(5) RS-232	Panel Mount

## ACCESSORIES

**CU15B** - Copper Grounding Strap

## SPECIFICATIONS

SERIAL TECHNOLOGY	
<b>485HESP</b>	
Connectors, line	3-position terminal blocks
Connectors, equipment	3-position terminal blocks
<b>232HESP/422HESP</b>	
Connectors, line	5-position terminal blocks
Connectors, equipment	5-position terminal blocks
SURGE SUPPRESSION	
Clamping Voltage - stage 1	72 VDC, minimum 108 VDC, maximum
Series Resistance - stage 2	2.7 Ohms
Clamping Voltage - stage 3	<b>Models 422HESP, 485HESP:</b> 6.45 VDC, minimum 7.14 VDC, maximum <b>Model 232HESP:</b> 14.3 VDC, minimum 15.8 VDC, maximum
Clamping Time	Less than $5 \times 10^{-9}$ seconds
Dimensions	11.4 x 8.4 x 4.6 cm (4.5 X 3.3 x 1.8 in)
Installation	In-line
Weight	0.19 kg (6.7 oz)
ENVIRONMENTAL	
Operating Temperature	0 to +70 °C (+32 to +185 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95% Non-condensing
APPROVALS / CERTIFICATIONS - 485HESP	
2011/65/EU - Reduction of Hazardous Substance Directive	
2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)	

All product specifications are subject to change without notice.  
485HESP, 422HESP, 232HESP\_3117ds