

**PROTECTION FOR MOST  
D-SUB INTERFACES**

**DATA**

**VOICE**

**AUDIO**

**SIGNAL**

**INSTRUMENTATION**

**PROCESS CONTROL**

**NETWORK INTERFACES**

**RS-232**

**RS-422**

**RS-485**

**PARALLEL**

**4-20mA**



**COMMUNICATION PORT SURGE PROTECTION**

The ZapTech DB series protection devices were specifically designed to protect communication interfaces from damage caused by lightning storms, Static Discharge, secondary effects of power surges and transient ground potential energies.

As a significant measure to prevent electrical damage to your system, surge suppression also extends the life of sensitive circuits at the component level while improving system reliability. Zap-Tech protectors are best applied as near as physically practical to sensitive electronic equipment, components and system ground references. DB series devices are specifically configured for installation directly onto the communication port on your equipment. The devices provide protection for subminiature D and centronics interfaces including RS422, RS485, RS232, Parallel Centronics, Bitronics and most other applications using subminiature D interface connectors. Versions are available for DB9, DB15, DB25, DB37, DB50, and Centronics Parallel connector interfaces. It is essential that one protector be installed at each end of a communication cable. The DB series must be grounded to earth by ensuring that the connector shell of the attached equipment is properly grounded to electrical safety ground via a standard 3-prong power cord.

## ELECTRICAL SPECIFICATIONS

\*MAXIMUM REPETITIVE SELF RESET SURGE:  
**3700Volts,1850 Amps for 100 pulses using  
2Ω source. per: EN61000-4-5 Specification.**

\*MAXIMUM FAIL SAFE SURGE:  
**4000 Volts 2000 Amps for 100 pulses using  
2Ω source per EN61000-4-5 Specification.  
Exceeds EN6100-4-5, level 4**

### CLAMPING VOLTAGES

**Common Mode - Line to line**

**Differential Mode - Line to ground**

MODEL	MAX OPERATING VOLTAGE	CLAMP VOLTAGE
<i>DB-( )-7</i>	<i>5.5V</i>	<i>7V</i>
<i>DB-( )-18</i>	<i>16.0V</i>	<i>18V</i>
<i>DB-( )-27</i>	<i>25.5V</i>	<i>27V</i>

\*CAPACITANCE:  
**Line/line: <40pF  
Line/Ground: <40pF**

COMPONENT RESPONSE TIME:  
**Less than 10 Nanoseconds**

OPERATING TEMPERTURE:  
**(-40°C TO +85°C)**

PART NUMBER FORMAT:  
***DB-(connector type 9, 15, 25, 36)-(clamp voltage)***  
***Example: DB-25-18***

APPLICATION	CLAMP VOLTAGE
<i>RS422, RS423, RS485, PARALLEL</i>	<i>7V</i>
<i>RS232, DIGITAL CURRENT LOOP</i>	<i>18V</i>
<i>ANALOG CURRENT LOOP</i>	<i>27V</i>

### OPERATION:

**The DB series protector will repetitively protect and reset without degradation up to and including Maximum repetitive self-reset surge. If it is subjected to more than its Maximum repetitive self-reset surge, the device will fail in a clamped mode, keeping the equipment safe from subsequent surges up to its Maximum fail safe surge until removed or replaced.**

\*SPECIAL AND MIXED CLAMP VOLTAGES ARE AVAILABLE BY REQUEST.

\*SPECIAL CONNECTOR OPTIONS ARE ALSO AVAILABLE. CONTACT YOUR SUPPLIER FOR DETAILS.