

## DBP Series Data Barrier Protection

Designed for business and industrial applications, these products provide protection for local area networks, CCTV/video equipment, computer serial communication interfaces and process control systems against the damaging effects of transient overvoltages caused by lightning, AC power systems and other electrically "noisy" sources.

Low energy and seemingly harmless transients can cause gradual degradation of the sensitive integrated circuits used in network interfaces and CCTV hardware. This will lead to the eventual failure of the equipment.

At the other end of the scale are the high energy surges induced by lightning and direct short-circuit contact with power cables which can result in the immediate destruction of circuitry.

Computer network systems using coaxial or twisted pair cabling are subject to electrical interference pick-up from surges caused by earth potential differences - a particular problem for LANs running between buildings. Low energy transients can be the result of electrostatic discharge and power switching in electrical machinery.

Due to earth potential differences, long-distance cables, such as RS422 and RS485 systems operating over large areas, are particularly susceptible to the effects of lightning strikes even when they are several miles away.

The DBP Series offers low cost and effective surge suppression for applications where cables leave the security of the office and enter electrically harsh environments.

### Features

- Exceptionally high surge handling capability meets the 10kA requirements of BS6651:1999 Annex C, to provide long life and low maintenance
- Meets the requirements of BS EN62305-4:2006 (which replaced BS6651:1999 Annex C in August 2008) and BS EN61643 21/22
- BS6651:1999 Annex C location category C
- Rugged construction (grey moulded plastic).
- DIN rail mounting for modular installation.
- DIN rail earthing provided for ease of installation.
- ST models provided with two port push in screw terminal connectors for ease of installation or replacement.
- Panel mounting screw holes for permanent installation.
- Low "let through" voltages.
- Fast response times.
- Negligible effect on normal line operation.
- Additional earth stud provided for installation versatility.
- Many models offer lower line resistance and higher line current capability than most other competitors products.

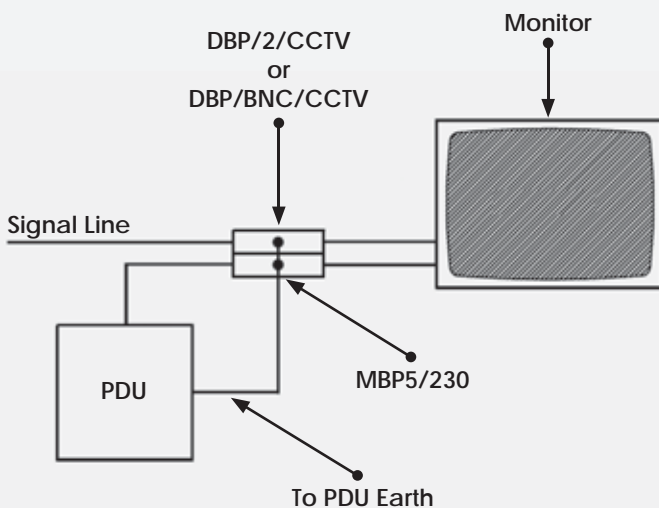
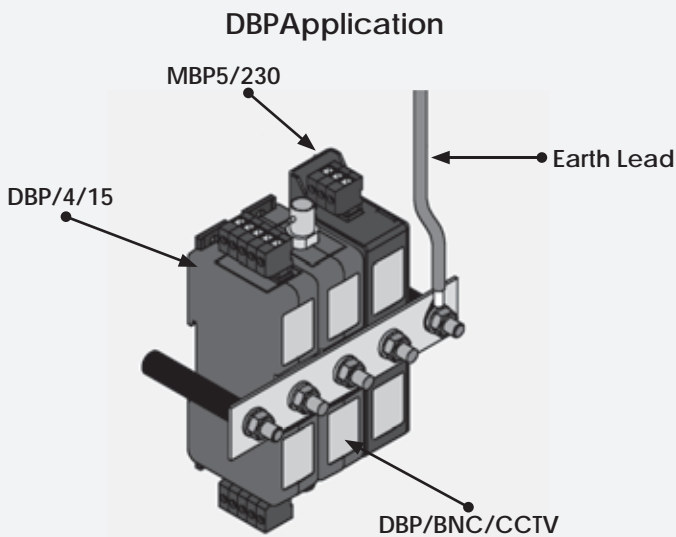
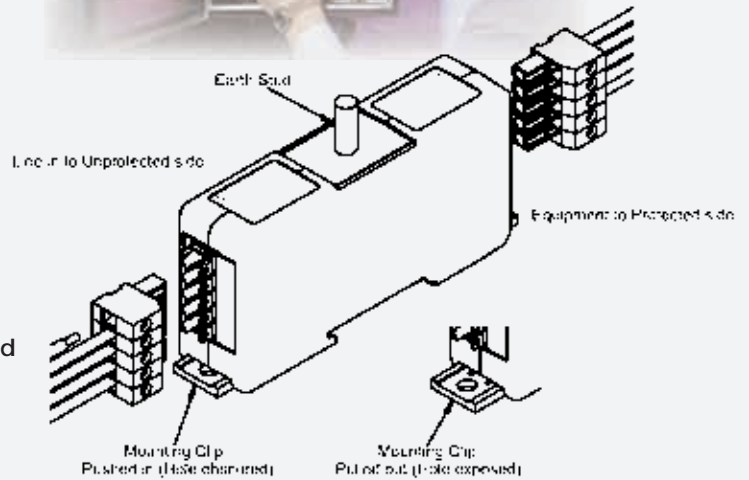


### Instant protection from surges caused by:

- Lightning.
- Nearby power systems.
- Power-cross faults (direct contact with power cables).
- Electrical machinery.
- Electro-static discharge.

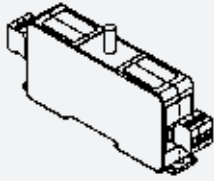
**Applications**

- Building-to-building serial communication.
- Long-range data acquisition and display systems at sports venues.
- Plant and process control systems.
- Signalling and telemetry to remote sites.
- "Intelligent" stage lighting.
- Local area networks (LAN)
- Office computer networks.
- Electronic cash registers (EPOS).
- Ethernet (10Base2, 10Base5 & 10BaseT), Cat 5, RS485, RS232, RS422 and Token Ring
- Closed circuit television (CCTV security).



**DBP/2/06**

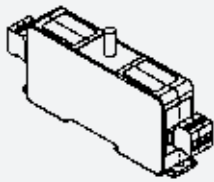
**RS485 ST BARRIER**



A barrier protector designed for RS485 lines providing screw terminals for secure connection. Intended for hardwired installation on remote computer controlled equipment.

**DBP/2/30**

**4-20mA ST LOOP BARRIER**



This device provides protection for process control applications using 4-20mA current loop signalling. A pluggable terminal strip allows the unit to be readily disconnected once wired into the circuit.

**DBP/4/06**

**RS485 ST BARRIER**



A barrier protector designed for RS485 lines providing screw terminals for secure connection. Intended for hardwired installation on remote computer controlled equipment.

**DBP/4/15**

**RS422 ST BI-POLAR BARRIER**



A bi-polar RS422 surge barrier for long distance serial communication lines requiring hardwired installation. Applications include data collection and public display as well as process control

**DBP/4/50**

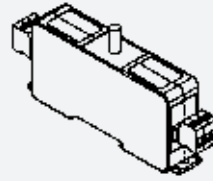
**TWISTED PAIR BARRIER**



A barrier protector designed for twisted pair data communication signal lines up to 50 volts. Intended for hardwired installation and provided with screw terminals for secure connection.

**DBP/2/15**

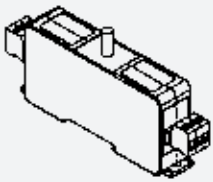
**RS232 ST BARRIER**



A barrier protector for RS232 serial communications requiring hardwired installation in low-risk situations. Ideal for short building-to-building cable runs and where cables pass through a factory area.

**DBP/2/50**

**TWISTED PAIR BARRIER**



A barrier protector designed for twisted pair data communication signal lines up to 50 volts. Intended for hardwired installation and provided with screw terminals for secure connection.

**DBP/4/15**

**RS232 ST BARRIER**



A barrier protector for RS232 serial communications requiring hardwired installation in low-risk situations. Ideal for short building-to-building cable runs and where cables pass through a factory area.

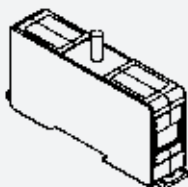
**DBP/4/30**

**4-20mA ST 2-PAIR LOOP BARRIER**



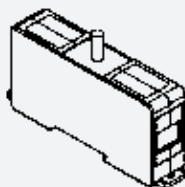
A version of the 4-20mA Current Loop Barrier provides dual-pair protection required on systems using bi-directional data transfer or process control signalling.





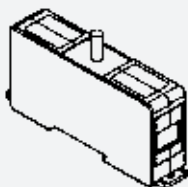
**DBP/RJ45/100BT  
CATEGORY 5 BARRIER**

Provides primary level surge protection for category 5 cabling installations using RJ45 modular jack connectors.



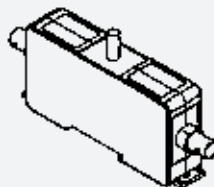
**DBP/RJ45/100BT  
TOKEN RING BARRIER**

This barrier device provides protection for Token Ring systems using RJ45 modular jack connectors.



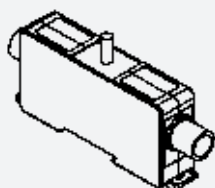
**DBP/RJ45/100BT  
10BASET BARRIER**

Designed for Ethernet 10BaseT (twisted pair) systems with RJ45 modular jack connectors.



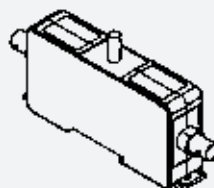
**DBP/BNC/10B2  
10BASE2 BARRIER**

Provides primary level surge protection for Ethernet 10Base2 (ThinNet or CheaperNet) systems with BNC connectors.



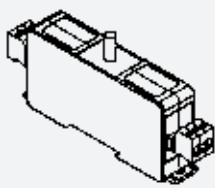
**DBP/N/10B5  
10BASE5 BARRIER**

A barrier protector designed for Ethernet 10Base5 (ThickNet) systems with 'N' type connectors where "backbone" cables connect buildings.



**DBP/BNC/CCTV  
CCTV & VIDEO BARRIER**

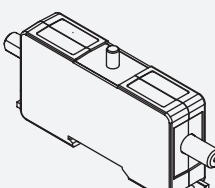
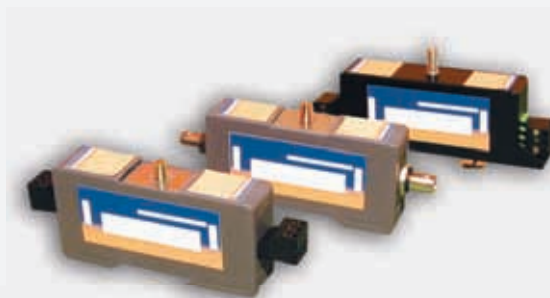
Designed to protect CCTV video systems with coax connectors. Particularly ideal for remotely situated cameras with BNC connectors.



**DBP/2/CCTV**

**CCTV & VIDEO ST BARRIER**

Similar to the CCTV & VIDEO BARRIER, this unit is designed specifically for CCTV video systems requiring hardwired installation. Particularly ideal for systems using twisted pair or with no standard connection in remote areas.

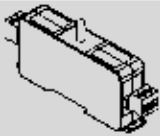
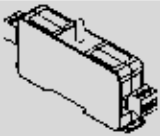
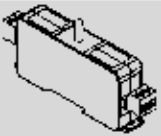
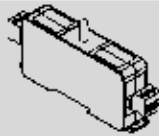






**DBP/CATV**


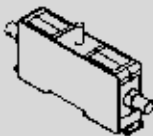
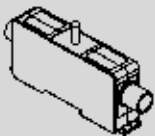
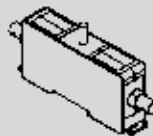
**Cable TV / Satellite System Barrier**

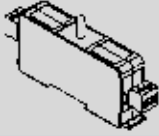
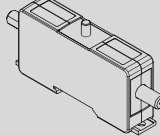
Provides surge protection for Cable TV and Satellite Systems. Protection is provided against the damaging effects of transient overvoltages caused by lightning, AC power sub systems and other electrically "noisy" sources.



| Specifications                       |  |  |  |  |
|--------------------------------------|---|---|---|---|
| Part Code                            | DBP/2/06  | DBP/2/15  | DBP/2/30  | DBP/2/50  |
| Description                          | RS485 ST Barrier  | RS232 ST Barrier  | 4-20mA ST Loop Barrier  | Twisted Pair Barrier  |
| Connectors                           | Screw Terminals 2-Wire  | Screw Terminals 2-Wire  | Screw Terminals 2-Wire  | Screw Terminals 2-Wire  |
| Nominal Working Voltage (DC)         | 6V  | 15V   | 30V   | 50V   |
| Maximum Working Voltage (DC)         | 7.5V  | 6.5V  | 36.5V   | 58V   |
| Current Rating (Signal)              | 1.25A   | 1.25A   | 1.25A   | 1.25A   |
| Clamping Voltage <sup>(1)</sup>      | 11V   | 27V   | 45V   | 75V   |
| Maximum Surge Current <sup>(2)</sup> | 10kA  | 10kA  | 10kA  | 10kA  |
| Line Resistance ( $\pm 10\%$ )       | 1 $\Omega$  | 1 $\Omega$  | 1 $\Omega$  | 1 $\Omega$  |
| Response Time                        | <10ns   | <10ns   | <10ns   | <10ns   |
| System Exposure Level <sup>(3)</sup> | High  | High  | High  | High  |
| Operating Temperature                | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  |
| Dimensions (in mm) W                 | 135   | 135   | 135   | 135   |
| D                                    | 50  | 50  | 50  | 50  |
| H                                    | 25  | 25  | 25  | 25  |

| Specifications                       |  |  |  |  |
|--------------------------------------|---|---|---|---|
| Part Code                            | DBP/4/06  | DBP/4/15  | DBP/4/30  | DBP/4/50  |
| Description                          | RS485 ST Barrier  | RS232 ST Barrier  | 4-20 mA ST 2-pair Loop Barrier  | Twisted Pair Barrier  |
| Connectors                           | Screw Terminals 4-Wire  | Screw Terminals 4-Wire  | Screw Terminals 4-Wire  | Screw Terminals 4-Wire  |
| Nominal Working Voltage (DC)         | 6V  | 15V   | 30V   | 50V   |
| Maximum Working Voltage (DC)         | 7.5V  | 16.5V   | 36.5V   | 58V   |
| Current Rating (Signal)              | 1.25A   | 1.25A   | 1.25A   | 1.25A   |
| Clamping Voltage <sup>(1)</sup>      | 11V   | 27V   | 45V   | 75V   |
| Maximum Surge Current <sup>(2)</sup> | 10kA  | 10kA  | 10kA  | 10kA  |
| Line Resistance ( $\pm 10\%$ )       | 1 $\Omega$  | 1 $\Omega$  | 1 $\Omega$  | 1 $\Omega$  |
| Response Time                        | <10ns   | <10ns   | <10ns   | <10ns   |
| System Exposure Level <sup>(3)</sup> | High  | High  | High  | High  |
| Operating Temperature                | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  |
| Dimensions (in mm) W                 | 135   | 135   | 135   | 135   |
| D                                    | 50  | 50  | 50  | 50  |
| H                                    | 25  | 25  | 25  | 25  |

| Specifications                       |  |  |  |  |
|--------------------------------------|---|---|---|---|
| Part Code                            | DBP/RJ45/100BT  | DBP/BNC/10B2  | DBP/N/10B5  | DBP/BNC/CCTV  |
| Description                          | Category 5 Barrier  | 10Base2 Barrier   | 10Base5 Barrier   | CCTV & Video Barrier  |
| Connectors                           | Modular RJ45  | BNC-Type Coaxial  | N-Type Coaxial  | BNC-Type Coaxial  |
| Nominal Working Voltage (DC)         | ≤4.0V   | -2.05V  | -2.05V  | 2.0V  |
| Maximum Working Voltage (DC)         | 4.0V  | -4.5V   | -4.5V   | 6.5V  |
| Current Rating (Signal)              | 330mA   | 330mA   | 330mA   | 330mA   |
| Clamping Voltage <sup>(1)</sup>      | 25V/600V  | 20V/325V  | 20V/325V  | 17V   |
| Maximum Surge Current <sup>(2)</sup> | 10kA  | 10kA  | 10kA  | 10kA  |
| Line Resistance (±10%)               | 1Ω  | 0.5Ω  | 0.5Ω  | 1Ω  |
| Response Time                        | <10ns   | <10ns   | <10ns   | <10ns   |
| System Exposure Level <sup>(3)</sup> | High  | High  | High  | High  |
| Operating Temperature                | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  | -25° to +70° C  |
| Dimensions (in mm) W                 | 135   | 135   | 135   | 135   |
| D                                    | 50  | 50  | 50  | 50  |
| H                                    | 25  | 25  | 25  | 25  |

| Specifications                       |  |  |
|--------------------------------------|---|---|
| Part Code                            | DBP/2/CCTV  | DBP/CATV  |
| Description                          | CCTV & Video ST Barrier   | Cable TV / Satellite System Barrier   |
| Connectors                           | Screw Terminals 2-Wire  | F Type Coaxial  |
| Nominal Working Voltage (DC)         | 2.0V  | 50V   |
| Maximum Working Voltage (DC)         | 6.5V  | 60V   |
| Current Rating (Signal)              | 330mA   | 330mA   |
| Clamping Voltage <sup>(1)</sup>      | 17V   | 20V   |
| Maximum Surge Current <sup>(2)</sup> | 10kA  | 10kA  |
| Line Resistance (±10%)               | 1Ω  | 0.5Ω  |
| Response Time                        | <10ns   | <10ns   |
| System Exposure Level <sup>(3)</sup> | High  | High  |
| Operating Temperature                | -25° to +70° C  | -25° to +70° C  |
| Dimensions (in mm) W                 | 135   | 135   |
| D                                    | 50  | 50  |
| H                                    | 25  | 25  |

**Notes:**

- (1) 'Let through' voltage when 5kV (10/700μs) @ 125A surge waveform applied
- (2) 8/20μs surge current applied without failure of unit
- (3) BS6651:1999 Annex C - Category C exposure level capability

**Optional Extras**

An extensive range of DIN rail mounting kits and IP rated enclosures are available for the above

**For CCTV Video System applications take a look at our MBP series datasheet.**

**Introduction to the MBP Series**

The MBP forms an important part of CCTV surge protection systems. Video circuit protection for cabling of CCTV, Consoles, Camera pan and tilt and Control Room Mains should also be installed.

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale.