

### DSP Series

- Use for Data Signal and Communication application.
- Also applicable to low current DC supply for 3.5A and below.
- Protects sensitive electronic systems and equipments from Surge Transient entering through signal or comm. wires
- Suitable for Tele-communication, Field Sensors and Transducer, Control Signal, CCTV, Computer, Networking, and other Systems where twisted pair wiring are used.
- Can be installed in control panel, termination panels and equipment panels.
- Protectors available for 6V, 16V, 32V and 54V.
- Multi-stage protection provide better protection.

### Product Features

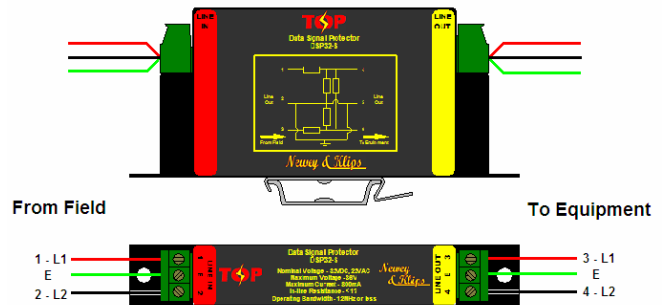
- Maintenance free.
- Series connection.
- Wide range of voltage selection including 6V, 16V, 32V and 54V.
- High current limit (3A) allow usage in wide range of system.
- Low in line resistance of 0.05 ohms allow easy compatibility to applied system.
- Allow high bandwidth of 120kHz to 180kHz .
- Metallic Enclosure.
- Pluggable terminal allow easy installation and replacement of the protector.
- DIN rail mounting or panel mount enable easy installation.
- Pluggable Terminals allows easy replacement
- Earthing via DIN Rails permitting easy installation
- Low let-through or clamping voltage ( $V_p$ )
- Full mode protection (L-L and both L-E)
- High Discharge Current
- Continuous and repeated protection in intense environment

### Testing Specification

- Tested to 5kV 10/700 $\mu$ s, Accordance to:
  - \* BS6651:1999, Appendix C, Cats C-High
  - \* ITU IX K17 (CCITT)

### Installation

To begin it is important to select the correct protector based on the voltage, current and bandwidth. The protector is installed in series as indicated in the diagrams below. Ensure that the input (wires going away from the equipment) and output (wires going towards the equipment) are connected correctly to ensure protection. Arrange the incoming and outgoing wire correctly to ensure no transient goes back into the system via induction.



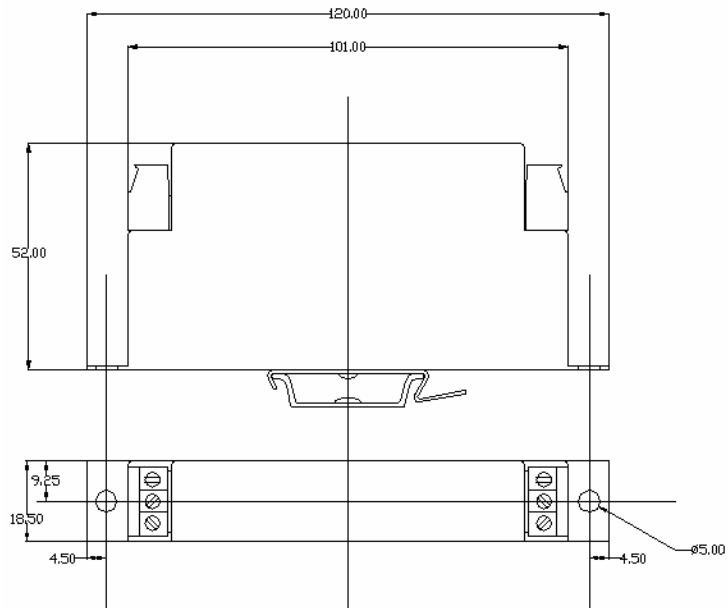
### Product Specification

| Model                                 | DSP 06-HC       | DSP 16-HC       | DSP 32-HC       | DSP 54-HC       |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Nominal Voltage (D.C.)                | 6.7V            | 16V             | 32V             | 54V             |
| Nominal Voltage (A.C.)                | 5V              | 11V             | 22V             | 38V             |
| Maximum Continuous Operating Voltage  | 7.7V            | 18V             | 36V             | 58V             |
| Maximum Load Current                  | 3.5A            | 3.5A            | 3.5A            | 3.5A            |
| Clamping or Let-through Voltage $V_p$ |                 |                 |                 |                 |
| 5kV 10/700 $\mu$ s, 125A ITU Standard | 11V             | 27V             | 46.5V           | 72V             |
| Nominal In-Line Resistance (per line) | 0.05 $\Omega$   | 0.05 $\Omega$   | 0.05 $\Omega$   | 0.05 $\Omega$   |
| Bandwidth (3dB, 50 $\Omega$ system)   | 120kHz          | 140kHz          | 150kHz          | 160kHz          |
| Leakage Current (Nominal Voltage)     | 200 $\mu$ A     | 10 $\mu$ A      | 10 $\mu$ A      | 10 $\mu$ A      |
| Modes of Protection                   | L-L and 2 x L-E | L-L and 2 x L-E | L-L and 2 x L-E | L-L and 2 x L-E |

| Model   | DSP 06-HC | DSP 16-HC | DSP 32-HC | DSP 54-HC |
|---|-----------|-----------|-----------|-----------|
| Max. Discharge Current ( $I_{max}$ )<br>8/20 $\mu$ s per mode       | 10kA      | 10kA      | 10kA      | 10kA      |
| Total Max. Discharge Current ( $I_{max}$ )<br>8/20 $\mu$ s per unit | 20kA      | 20kA      | 20kA      | 20kA      |

### Other Specification

|                                   |  |             |             |             |
|-----------------------------------|--|-------------|-------------|-------------|
| Operation Temperature             | -30 to 70°C  | -30 to 70°C | -30 to 70°C | -30 to 70°C |
| Conductor Size (mm <sup>2</sup> ) | 2.5  | 2.5         | 2.5         | 2.5         |
| Mounting (Earth Connection)       | DIN rail according to EN50022 or Screw mount (DIN rail is removable) |             |             |             |
| Weight (g) (approximately)        | 200  | 200         | 200         | 200         |
| Physical Dimension (mm)           |  |             |             |             |



Note: The company reserve the right to make changes to the product design and specification without prior notice due to continuous product improvement policy