

TECHNICAL DATA SHEET

LPI® Signal & Data Protectors - DD Range



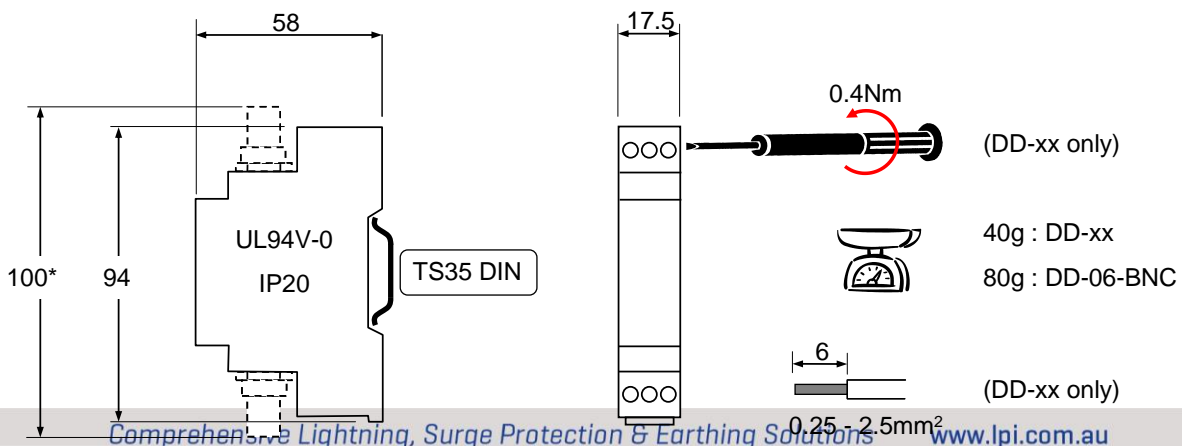
Features

- High performance, low voltage surge protector
- Suitable for protection of data, signal and telecommunication pairs
- 3-stage protection ensures lowest let-through voltage to protected equipment
- Protects loads of up to 2 A
- High impulse discharge current rating – 20 kA, 8/20 μ s
- Provides protection in both common and differential modes
- TS35 DIN rail mounting
- Suitable for fire alarm panels, RS232/485, process control signals, telephone lines and security networks

Technical Data

| Ordering Code | | * DD-06 | * DD-06-BNC | * DD-12 | * DD-24 | * DD-48 | * DD-1T |
|---|-----------|---|---------------------|---|---|---|---------------------|
| Nominal Operating Voltage | U_N | 6 V | 6 V | 12 V | 24 V | 48 V | Telephone |
| Max. Continuous Operating Voltage | U_C | 6.6 V _{DC} 4.7 V _{RMS} | 6.6 V _{DC} | 15.6 V _{DC} 11.0 V _{RMS} | 29 V _{DC} 20 V _{RMS} | 62 V _{DC} 44 V _{RMS} | 190 V _{DC} |
| Surge Current rating (8/20 μ s) | I_{MAX} | 20 kA | | | | | |
| Response Time | T_r | <5 ms | | | | | |
| Operating Current (DC or RMS) | I_L | 2 A | | | | | 150 mA |
| Voltage Protection Level @ 3 kA, 8/20 μ s | U_P | 16 V | 16 V | 28 V | 60 V | 120 V | 240 V |
| Loop Resistance | | < 0.1 Ω | | | | | 6.6 Ω |
| Bandwidth | | 5 MHz | | | | | 1 MHz |
| Protection Modes | | Line-Line & Line-Ground | | | | | |
| Operating Temperature | | -40°C to 60°C | | | | | |
| Customised options available on request Warranty | | 5 Years – Contact LPI for full warranty details | | | | | |

* PRODUCT ORDER CODE: Please add '-BOX' to the product code for supply in boxes of 10 units per box.
Example: DD-xx-BOX or DD-xx-BNC-BOX where xx denotes the voltage.



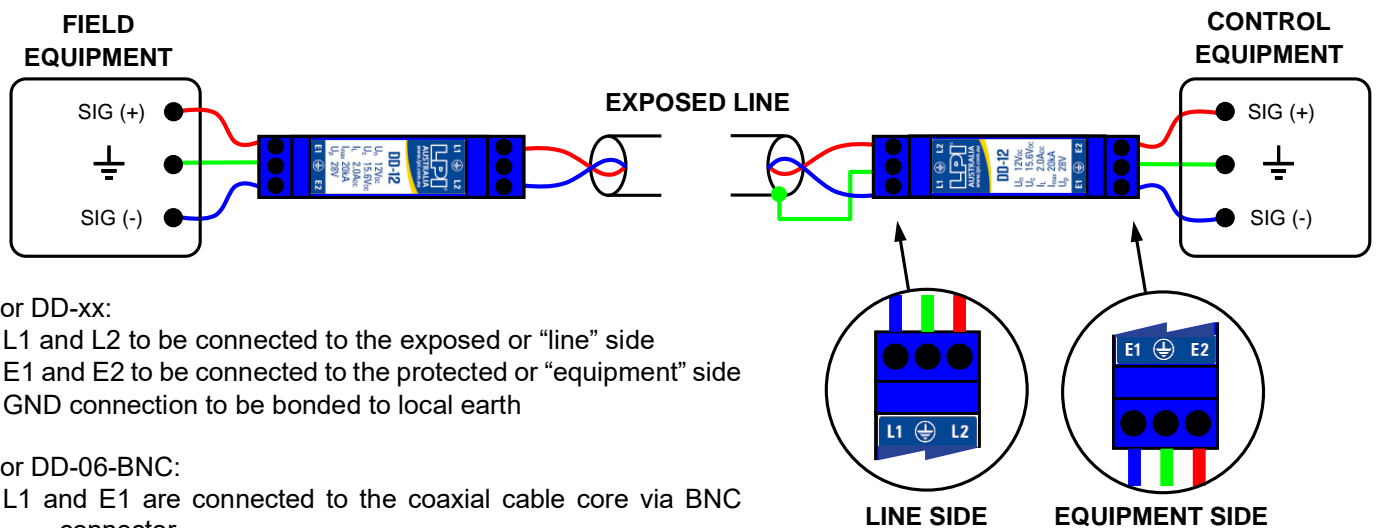
* Applies to DD-06-BNC model only
Commercial in Confidence

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Application

| | DD-06 | DD-06-BNC | DD-12 | DD-24 | DD-48 | DD-1T |
|-------------------------|-------|-----------|-------|-------|-------|-------|
| RS-232 | | | | ✓ | | |
| RS-422 | ✓ | | | | | |
| RS-485 | | | ✓ | | | |
| Fire Alarm Panels | | | | ✓ | | |
| Security Systems | | | ✓ | ✓ | | |
| Process Control loops | | | | ✓ | | |
| C-BUS | | | | | ✓ | |
| Analogue telephone line | | | | | | ✓ |
| Digital telephone line | | | | | | ✓ |
| CCTV | | ✓ | | | | |

Installation



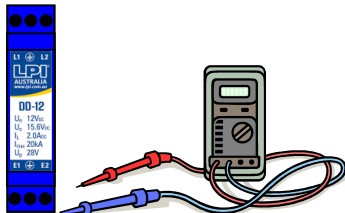
For DD-xx:

- L1 and L2 to be connected to the exposed or "line" side
- E1 and E2 to be connected to the protected or "equipment" side
- GND connection to be bonded to local earth

For DD-06-BNC:

- L1 and E1 are connected to the coaxial cable core via BNC connector
- L2 and E2 are connected to the coaxial cable screen via BNC connector
- GND connection to be bonded to local earth

Testing



A PASS result is obtained if measurements meet the specifications listed in the adjacent tables.

| | DD-06, -12, -24, -48 | DD-1T |
|---------|----------------------|---------|
| L1-E1 | ≤ 0.5 Ω | ≤ 10 Ω |
| L2-E2 | ≤ 0.5 Ω | ≤ 10 Ω |
| GND-GND | ≤ 0.5 Ω | ≤ 0.5 Ω |
| E1-E2 | > 1 MΩ | > 1 MΩ |
| E1-GND | > 1 MΩ | > 1 MΩ |
| E2-GND | > 1 MΩ | > 1 MΩ |

| | DD-06-BNC |
|-------------------------|-----------|
| CORE (L) - CORE (E) | ≤ 0.5 Ω |
| SCREEN (L) - SCREEN (E) | ≤ 0.5 Ω |
| GND-GND | ≤ 0.5 Ω |
| CORE (E) - SCREEN (E) | > 1 MΩ |
| CORE (E) - GND | > 1 MΩ |
| SCREEN (E) - GND | > 1 MΩ |