



- Direct Strike Protection
- Earthing Products & Solutions
- Surge & Transient Protection for Power, Data, Communications and RF Lines

LPI® Signal & Data Protectors - D2 Ranges

Features

- High performance surge protector for operation at 6-100VDC
- Nominal impulse discharge current 20kA, 8/20µs
- Available in three different operating current: 300mA, 1250mA and 4000mA
- Direct mounting on grounding plate or DIN rail

Product Description



LPI® D2 Series Protectors are designed to protect sensitive electronic circuits and components from damaging surge voltages and currents.

Extremely fast response and low clamping voltages make the D2 series particularly suitable for the protection of signal and data lines associated with computer, data communication, instrumentation, broadcasting and industrial control interfaces.

Designed to be used directly with EIA standard interfaces RS232, RS422, RS-423, RS-485, and with 20mA and 50mA instrumentation loops. LPI D2 series protectors are fast, rugged and capable of protecting against fast rising voltage transients as well as the severe current surges associated with lightning discharges.

Description	Technical Specification
Surge Current rating:	20kA (8/20µs)
Surge Life:	>1500 times (200A, 10/1000 µs) >10 times (10,000A, 8/20µs)
Operating Current:	D2D: 300mA D2H: 1200mA D2V: 4000mA
Operating Temperature:	-40°C to 60°C
Mounting:	DIN rail
Warranty:	5 Years

Method of Operation

D2 series are heavy duty multi-staged protectors. A solid state section intercepts the leading edge of the surge with subnano-second response time. Within microseconds, a 3-pole common chambered gas tube capable of handling 20,000 ampere lightning currents operates and crowbars the surge to ground.

The protector remains in the crowbar state until the surge has passed and line voltages return to safe levels, then automatically restores the line to normal operation and waits for the next surge without the need for resetting a breaker or replacing a fuse.

Application

Protectors are generally placed at the end of a signal line, data line or current loop. In the case of daisy chain configurations such as (RS-485), protectors are placed at each node.

D2 series protectors provide both line to ground and line to line protection and are designed for use on differential signals (such as RS-422 or RS-485) and most current loops.

D2 series protectors also provide line to ground protection for two separate circuits and are designed for use on ground referenced signals such as RS-232 and 4-20mA loops where the return wire is grounded at the protector.

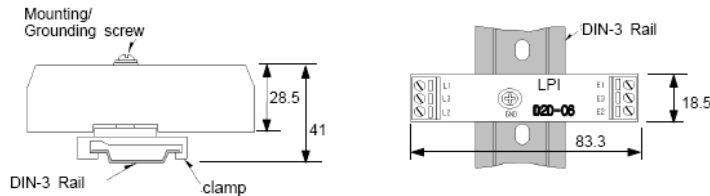
INSTALLATION INSTRUCTION SHEET

LIGHTNING PROTECTION INTERNATIONAL PTY LTD ABN 11 099 190 897



Model	Interface		Protection Characteristics		Current Rating	Series Resistance ±10%
	Peak Signal Voltage (1)	Frequency (-3dB 50Ω)	Vc @5kV,10/700	Vn Normal Voltage (2)		
	Volts	MHz	Volts	Volts	mA	Ohms
D2D06	7.7	0.8	10.5	6	300	8.6
D2D15	19	2.5	24	15	300	8.6
D2D30	37	4	43.5	30	300	8.6
D2D50	58	6	75	50	300	8.6
D2H06	7.7	1.5	10.8	6	1250	2
D2H15	16.5	10	26.2	15	1250	2
D2H30	36.5	10	44.3	30	1250	2
D2H50	56.5	10	63	50	1250	2
D2V06	7.7	0.15	11	6	4000	0.05
D2V15	16.5	0.14	26.5	15	4000	0.05
D2V30	36.5	0.13	44.5	30	4000	0.05
D2V50	56.5	0.12	66	50	4000	0.05

1. Voltage (DC or AC Peak) measured at <5mA (15,30,50 model) and <10mA (06 model)
2. Voltage (DC or AC) measured at <10µA (15,30,50 model) and <200µA (06 model)

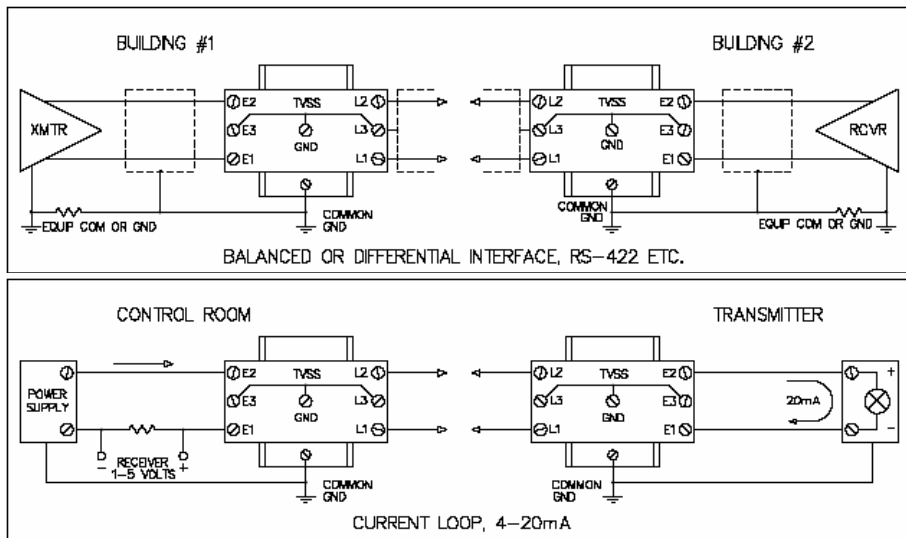


Typical Connections

Connect the DIN rail to the facility earth via a 10mm² or large copper wire. Note that this wire should take the most direct route so that it is as short as possible.

Tighten the mounting screw of the D2 unit to secure the attached clamp to the DIN-3 rail. The fixing of the mounting screw provides the necessary earth connections for the unit.

Note that single point earthing provides better protection and will permit the D2 protector to be located some distance from the equipment.



LPI® has a policy of continuing product development. Therefore, the above specifications are subject to change without notice.

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