



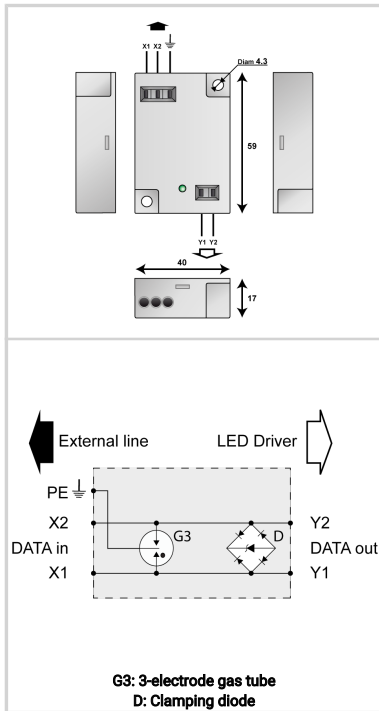
CITEL

1-pair Data surge protector

MDL-28-R



- ▶ Data line protection
- ▶ High energy protection in common-mode
- ▶ Low clamping level in differential mode
- ▶ Galvanic isolation to earth connection
- ▶ Indoor applications, IP20 (NEMA 2)
- ▶ Plastic enclosure, UL94-V0
- ▶ Certified acc. to IEC/EN 61643-21
- ▶ Location and test categories: C2, C3



Electrical Characteristics

Network		Digital communication (2-Wire)
Protection modes (network)		CM / DM
Lightning Protection Zones (LPZ)		1 - 3
Nominal line voltage	Un	24 Vdc
Max. DC operating voltage	Uc	28 Vdc
Cut-off frequency -3dB, 100 ohm system	f max.	> 30 MHz
Cut-off frequency -1dB, 100 ohm system	f max.	> 10 MHz
Max. load current @25°C	IL	500 mA
Signal rise/fall times, to BS EN IEC 62386-101:2022	t, t	3 μs
Nominal discharge current C2 (1.2/50μs / 8/20μs), 10 applications X-C (Line/Earth)	In	4 kV / 2 kA
Nominal discharge current CWG (1.2/50μs / 8/20μs) with 42 ohms, X-X (Line-Line), to IEC 61000-4-5 (unshielded asymmetric)	In	800 V / 20 A
Max. discharge current C2 (1.2/50μs / 8/20μs), 10 applications, X-C (Line-Earth)		20 kV / 10kA
Protection Level C3 (10/1000μs), 300 applications@10 A, Y-Y (Line/Line)	Up	< 40 V
Protection Level C2 (1.2/50μs / 8/20μs), 10 applications, Y-C (Line-Earth)	Up	< 1000 V
Protection Level CWG (1.2/50μs / 8/20μs) with 42 ohms, Y-Y (Line-Line), to IEC 61000-4-5 (unshielded asymmetric)	Up	< 48 V
Line resistance (± 10%)		< 0.2 ohms
Capacitance @1MHz X-C (Line/Earth)	C	< 10 pF
Capacitance @1MHz X-X (Line-Line)	C	< 30 pF

Mechanical Characteristics

Technology	GDT+TVS diode
SPD configuration	Data-pair, plus PE
Connection to Network	2 spring terminals opposite side in/out - wire 1.5mm ² max.
Format	Plastic Enclosure with connectors input/output
Mounting	On plate
Housing material	Thermoplastic UL94 V-0
Operating and storage temperature	-40/+85°C
Ingress Protection rating	IP20 (NEMA 2)
Failsafe mode	Transmission cut-off - Fault mode 2 (short-circuit)
Dimensions	See diagram

Standards

Standards compliance	IEC 61643-21 / EN 61643-21 / IEC 61000-4-5 / IEC 62386-101
Certification	KEMA

Part number

831611

