

- Nearly leakage current free overvoltage protection device for 3-data or signal lines, 2-wire bus networks
- Coarse protection by 20kA (8/20µs) heavy duty-GDT
- Fine protection by high speed suppressor-diodes
- Low-pass filter characteristic against danger high frequent harmonics
- Transversal and longitudinal voltage protection
- Rigid and small size polycarbonate housing for DIN-rail or direct mounting
- Strong and corrosion resistant universal screw terminals



Description

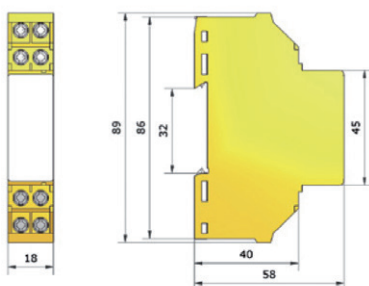
DataPro3x1-24V/24V-Tr is designed for best possible protection of low voltage data and signal lines. The two-stage protective circuit consists of a coarse protection by a GDT and a fine protection by selected high speed and high current resistant bipolar suppressor diodes, decoupled by an inductive resistance.

There are no significant leakage currents due to the absence of varistors (MOV), making remote alarm contact for fault indication and regular checks unnecessary.

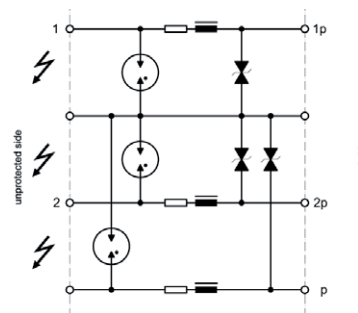
The overvoltage protection device is able to discharge fast and reliable danger lightning and overvoltage currents to earth and to assure a fast equipotential bonding between all wires and earth within < 2ns.

This protective circuit of high quality components works also as an high effective low pass filter and eliminate or reduce danger high frequent harmonics to a not danger level. Harmonics are caused by lightning strokes and other sources in the net, like frequency converters and similar.

Dimensional Drawing



Circuit Diagram



Characteristic	Description / Value
Nominal operating voltage	$U_N = 24 \text{ V DC}$
Max. continuous operating voltage	$U_{\max} = 28 \text{ V DC}$
Max. continuous operating current	$I_{\max} = 500\text{mA}$
Protection level line-ground at $1\text{kV}/\mu\text{s}$ and I_n	$U_{\text{Res}} \leq 36 \text{ V}$
C2 nominal impulse discharge current (10x at wave form 8/20 μs)	$I_n = 20 \text{ kA}$
Operating temperature range	$-25 \dots +85 \text{ }^\circ\text{C}$
Protection degree acc. to IEC EN 60529	IP 20
Manufacturer	Leutron

Installation / Operating instructions

This overvoltage protector is used for the protection of data and signal lines. The protective device must be connected as closely as possible to the equipment to be protected. Protected and unprotected lines must not be laid together.

Maintenance

Merely check this overvoltage protector for correct operation after the period when thunderstorms are most frequent. Apart from that this product requires no maintenance.

Trouble-shooting

As and when required, this overvoltage protective device can be checked by measuring insulation and continuity.

With an insulation resistance of $< 1\text{M}\Omega$, measure (1 to 2 and 1, 2, 3 to PE), or with open line (1 to 1^P, 2 to 2^P and 3 to 3^P) the overvoltage protective device must be replaced.