

- **Combined lightning current and surge arrester**
 - Capable of carrying lightning currents up to 10 kA (10/350 μ s)
 - Low voltage protection level, also suited for the protection of terminal equipment
 - For installation in conformity with the lightning protection zones concept at the boundaries from 0_A – 2 and higher
- **actiVsense technology**
 - Automatically detects the signal voltage from 0 to 180 V
 - Optimally adapts the voltage protection level to the currently applied signal
 - Adapted voltage protection level allows terminal equipment to be protected
- **Universal use**
 - One arrester type for two different signal circuits
 - Suitable for wall mounting, degree of protection IP 65
 - Easy retrofitting



DEHNbox used for a telecommunication connection (example: U_{k0} interface)

The compact DEHNbox combined lightning current and surge arrester is designed for protecting information and automation equipment and systems. Due to its new actiVsense technology, the nominal voltage is not specified. This allows the arrester to be used for voltages ranging from 0 to 180 V with a ± 5 V/50 MHz signal voltage. The nominal current is limited to 100 mA which is completely sufficient for information technology systems.

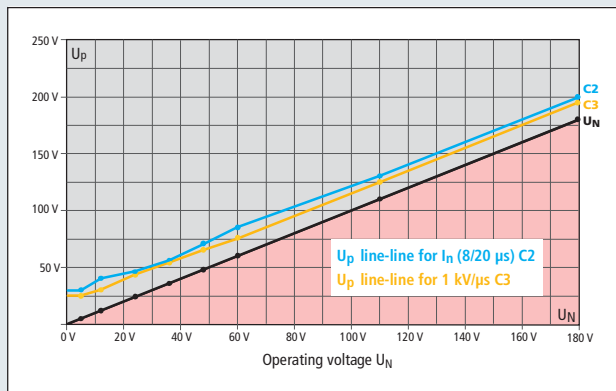
Its innovative actiVsense technology allows the arrester to detect the signal voltage and to automatically adapt its voltage protection level to this voltage. This makes the arrester ideal for applications where changing or slowly fluctuating signal levels (≤ 400 Hz) are to be expected. In case of interference, DEHNbox arresters have an adapted minimal residual voltage for every signal voltage to provide maximum protection for devices and system circuits connected to them.

DEHNbox is available in two versions. The four-pole version provides protection for two separate balanced interfaces, that is the arrester automatically detects the operating / signal voltage for every pair and optimally adapts the voltage protection level for every signal circuit. This allows to protect two different balanced interfaces by means of a single

arrester, thus reducing installation time, saving costs and reducing the number of arresters to be used. If only one signal interface is to be protected, a two-pole version can be used for a balanced data interface (one pair).

With its surface-mounted plastic enclosure with integrated fixing lugs, DEHNbox is ideally suited for wall mounting and can be easily retrofitted into existing equipment and systems. The IP 65 degree of protection allows the arresters to be used in harsh environments such as in moist environments. Cables are therefore entered via easy-to-install self-sealing rubber membranes. These membranes allow easy and fast installation and prevent the ingress of moisture and dust. Both the line wires and an installed line shield can be contacted by means of spring-loaded terminals without the use of screws. Two separate terminals allow a line shield to be directly or indirectly connected to the equipotential bonding system.

The arresters are ideally suited for domestic and industrial use in information technology transmission systems such as telecommunication, bus and measuring and control systems.



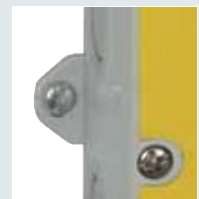
Voltage protection level diagram DEHNbox



Self-sealing rubber membranes

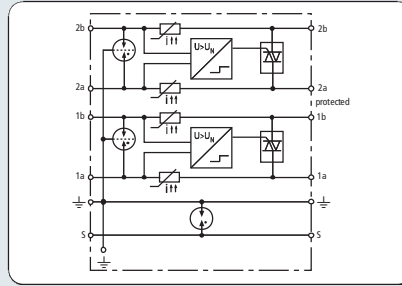


Spring-loaded terminals allow lines to be connected without screws

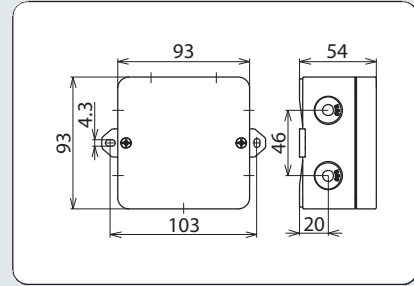


Fixing lugs on the enclosure for wall mounting

NEW



Basic circuit diagram DBX U4 KT BD S 0-180



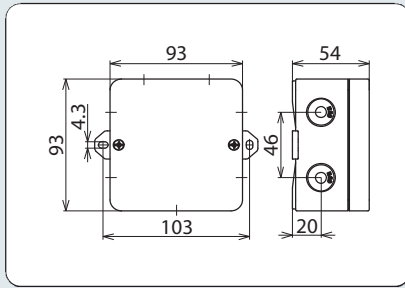
Dimension drawing DBX U4 KT BD S 0-180

- Universal voltage type with actiVsense technology
- Suitable for wall mounting, IP65
- For installation in conformity with the lightning protection zones concept at the boundaries from 0_A – 2 and higher

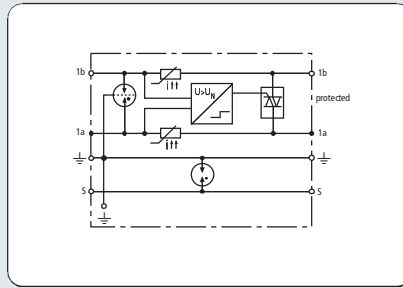
Compact combined lightning current and surge arrester in a surface-mounted plastic enclosure with actiVsense technology for protecting two pairs with the same or a different signal voltage of galvanically isolated balanced interfaces. Direct or indirect shield earthing.

Type	DBX U4 KT BD S 0-180
Part No.	922 400
SPD class	TYPE 1 P1
Nominal voltage (U _N)	0 - 180 V
Frequency of the nominal voltage (f _{UN})	0 - 400 Hz
Max. continuous operating d.c. voltage (U _C)	180 V
Permissible superimposed signal voltage (U _{signal})	≤ +/- 5 V
Cut-off frequency line-line (U _{signal} , balanced 100 ohms) (f _C)	50 MHz
Nominal current at 80°C I _L (according to max. short-circuit current)	100 mA
D1 Total lightning impulse current (10/350 μs) (I _{imp})	10 kA
D1 Lightning impulse current (10/350 μs) per line (I _{imp})	2.5 kA
C2 Total nominal discharge current (8/20 μs) (I _n)	20 kA
C2 Nominal discharge current (8/20 μs) per line (I _n)	10 kA
Voltage protection level line-line for I _n C2 (U _p)	see diagram, line C2
Voltage protection level line-line at 1 kV/μs C3 (U _p)	see diagram, line C3
Voltage protection level line-line for I _{imp} D1 (U _p)	≤ U _N + 50 V
Voltage protection level line-PG for D1/C2/C3	≤ 550 V
Series impedance per line	≤ 9 ohms; typically 7.9 ohms
Capacitance line-line (C)	≤ 80 pF
Capacitance line-PG (C)	≤ 70 pF
Operating temperature range	-25°C...+40°C
Degree of protection (arrester plugged-in)	IP 65
Dimensions (L x W x H)	93 x 93 x 55 mm
Enclosure material	polycarbonate
Colour	grey
Test standards	IEC 61643-21 / EN 61643-21





Dimension drawing DBX U2 KT BD S 0-180



Basic circuit diagram DBX U2 KT BD S 0-180



NEW

Compact combined lightning current and surge arrester in a surface-mounted plastic enclosure with actiVsense technology for protecting one pair of galvanically isolated balanced interfaces. Direct or indirect shield earthing.

- Universal voltage type with actiVsense technology
- Suitable for wall mounting, IP65
- Installation in conformity with the lightning protection zones concept at the boundaries from $0_A - 2$ and higher

Type	DBX U2 KT BD S 0-180
Part No.	922 200
SPD class	TYPE 1 P1
Nominal voltage (U_N)	0 - 180 V
Frequency of the nominal voltage (f_{UN})	0 - 400 Hz
Max. continuous operating d.c. voltage (U_C)	180 V
Permissible superimposed signal voltage (U_{signal})	$\leq \pm 5$ V
Cut-off frequency line-line (U_{signal} , balanced 100 ohms) (f_G)	50 MHz
Nominal current at 80°C I_L (according to max. short-circuit current)	100 mA
D1 Total lightning impulse current (10/350 μ s) (I_{imp})	9 kA
D1 Lightning impulse current (10/350 μ s) per line (I_{imp})	2.5 kA
C2 Total nominal discharge current (8/20 μ s) (I_n)	20 kA
C2 Nominal discharge current (8/20 μ s) per line (I_n)	10 kA
Voltage protection level line-line for I_n C2 (U_p)	see diagram, line C2
Voltage protection level line-line at 1 kV/ μ s C3 (U_p)	see diagram, line C3
Voltage protection level line-line for I_{imp} D1 (U_p)	$\leq U_N + 50$ V
Voltage protection level line-PG for D1/C2/C3	≤ 550 V
Series impedance per line	≤ 9 ohms; typically 7.9 ohms
Capacitance line-line (C)	≤ 80 pF
Capacitance line-PG (C)	≤ 70 pF
Operating temperature range	-25°C...+40°C
Degree of protection (arrester plugged-in)	IP 65
Dimensions (L x W x H)	93 x 93 x 55 mm
Enclosure material	polycarbonate
Colour	grey
Test standards	IEC 61643-21 / EN 61643-21