

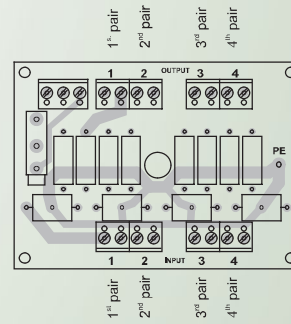
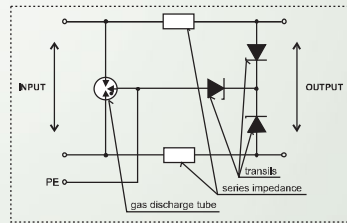
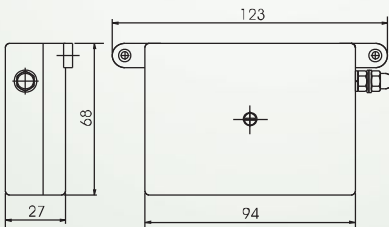


**DTB-L, DTB-AR  
DTB-ART**



DTB-L, DTB-AR and DTB-ART is a complex range of surge protection devices designed for protection of data, communication, measuring and control lines against surge effects. These surge protection devices are recommended for use in the Lightning Protection Zones Concept at the boundaries of LPZ<sub>0(A/B)</sub>-1 according to EN 62305. All types provide effective protection of connected equipment against common mode and differential mode surge effects according to IEC 61643-21. The nominal current of individual protected lines  $I_N < 0,1A$ .

These devices consist of gas discharge tubes, series impedance and transils. The number of protected pairs is optional (1-4). These devices are produced for nominal voltage within the range of 6V-170V. DTB-AR and DTB-ART types are designed for the protection of equipment using DSL technology. Maximum discharge current of DTB-L is 20kA (8/20) and 2kA (8/20) for DTB-AR and DTB-ART types. For the protection of telephone lines it is recommended to use a type with nominal voltage  $U_N=170V$  (with code mark "T"). The connection of protected lines is carried out by screw terminals for type DTB-L and by RJ45 connectors for types DTB-AR and DTB-ART.



Connection of RJ45 pins acc.to EIA/TIA 568, type B

- 1 white/orange 1 - blue pair
- 2 orange 2 - orange pair
- 3 white/green 3 - green pair
- 4 blue 4 - brown pair
- 5 white/blue
- 6 green
- 7 white/brown
- 8 brown



Technical data	1 2 3 4	DTB 1/6-L DTB 2/6-L DTB 3/6-L DTB 4/6-L	DTB 1/12-L DTB 2/12-L DTB 3/12-L DTB 4/12-L	DTB 1/24-L DTB 2/24-L DTB 3/24-L DTB 4/24-L	DTB 1/48-L DTB 2/48-L DTB 3/48-L DTB 4/48-L	DTB 1/T-L DTB 2/T-L DTB 3/T-L DTB 4/T-L
Number of protected pairs						
Nominal voltage	$U_N$	6 V	12 V	24 V	48 V	170 V
Max. continuous operating voltage	$U_C$	7,2 V	14,4 V	28,6 V	57,6 V	204 V
Nominal current	$I_N$	100 mA	100 mA	100 mA	100 mA	100 mA
D1 Total lightning impulse current (10/350)	$I_{total}$	5 kA	5 kA	5 kA	5 kA	5 kA
D1 Lightning impulse current (10/350) line/PE	$I_{imp}$	2,5 kA	2,5 kA	2,5 kA	2,5 kA	2,5 kA
C2 Max. discharge current (8/20)	$I_{max}$	20 kA	20 kA	20 kA	20 kA	20 kA
Nominal discharge current (8/20)	$I_n$	1 kA	1 kA	1 kA	1 kA	1 kA
Voltage protection level at $I_n$ (8/20)	$U_p$	15 V	28 V	64 V	160 V	500 V
Voltage protection level at 1kV/ $\mu$ s	$U_p$	9 V	18 V	34 V	66 V	260 V
Response time	$t_A$	< 30 ns	< 30 ns	< 30 ns	< 30 ns	< 30 ns
Data rate		1 MBit/s	1 MBit/s	1 MBit/s	1 MBit/s	1 MBit/s
Series impedance per line		1,5 -10 $\Omega$	1,5 -10 $\Omega$	1,5 -10 $\Omega$	1,5 -10 $\Omega$	1,5 -10 $\Omega$
Parasitic capacitance	C	1,5 nF	1,5 nF	1,5 nF	1,5 nF	1,5 nF
Operating temperature range	$\theta$	-40°C ÷ + 80°C	-40°C ÷ + 80°C	-40°C ÷ + 80°C	-40°C ÷ + 80°C	-40°C ÷ + 80°C
Recommended cable cross-section		0,25 - 1,5 mm <sup>2</sup>	0,25 - 1,5 mm <sup>2</sup>	0,25 - 1,5 mm <sup>2</sup>	0,25 - 1,5 mm <sup>2</sup>	0,25 - 1,5 mm <sup>2</sup>
Category tested acc. to IEC 61643:21-2000		A2, B2, C2, C3, D1	A2, B2, C2, C3, D1	A2, B2, C2, C3, D1	A2, B2, C2, C3, D1	A2, B2, C2, C3, D1
Article number		41 001 42 001 43 001 44 001	41 002 42 002 43 002 44 002	41 003 42 003 43 003 44 003	41 004 42 004 43 004 44 004	41 005 42 005 43 005 44 005

Technical data	1 2	DTB 1/AR DTB 2/AR	DTB 1/ART DTB 2/ART
Number of protected pairs			
Nominal voltage	$U_N$	120 V	170 V
Max. continuous operating voltage	$U_C$	144 V	204 V
Nominal current	$I_N$	100 mA	100 mA
C2 Max. discharge current (8/20)	$I_{max}$	2 kA	2 kA
Nominal discharge current (8/20)	$I_n$	1 kA	1 kA
Voltage protection level at 1kV/ $\mu$ s	$U_p$	360 V	520 V
Response time	$t_A$	< 30 ns	< 30 ns
Data rate		10 MBit/s	10 MBit/s
Series impedance per line		1,5 -10 $\Omega$	1,5 -10 $\Omega$
Parasitic capacitance	C	1,5 nF	1,5 nF
Operating temperature range	$\theta$	-40°C ÷ + 80°C	-40°C ÷ + 80°C
Recommended cable cross-section		0,3 mm <sup>2</sup>	0,3 mm <sup>2</sup>
Category tested acc. to IEC 61643:21-2000		A2, B2, C2, C3, D1	A2, B2, C2, C3, D1
Article number		41 116 42 116	41 117 42 117