

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors



Yellow / Line SPDs



Features

- Universal lightning current and surge arrester
 - For protecting data bus interfaces as well as measuring and control circuits
 - High discharge capacity of 3kA (10/350 μ s), 10 kA (8/20 μ s)
 - Maximum impulse current carrying capability (8/20 μ s) I_{max} up to 20 kA
 - Low voltage protection level, also capable of protecting terminal equipment
- Compact arrester
 - Fast and simple cable connection thanks to push-in connection technology
 - High system availability thanks to fail-safe performance
- Function-optimized design with a width of 6mm
 - LifeCheck and visual status indication integrated in the module
 - Simple remote signaling of status when used with optional remote signaling unit
 - Vibration and shock tested for safe operation

The BLITZDUCTORconnect series of combined lightning current and surge arresters features compact design and is designed for universal use and system protection in industrial environments, at information technology signal interfaces, and in automation or measuring and control systems.

With their high lightning current discharge capacity and low voltage protection levels, these lightning current and surge arresters offer reliable protection of terminal equipment.

These arresters are available to protect two single lines sharing a common reference potential (unbalanced interfaces) or one unearthed pair (balanced interface).

Cables are connected using vibration-proof push-in connection technology. Stripped solid or flexible conductors with wire end ferrules can be clamped and contacted quickly, easily and without tools. When rewiring, the conductor is freed from the clamping point simply by pressing the release button and can be reconnected easily. Holes in the housing at each conductor terminal allow measurements of the signal circuit using test probes.

The arresters of the BLITZDUCTORconnect series are equipped with a mechanical status indicator which clearly shows the status of the arrester (via a green or red indicator flag). In the event of arrester overload, the arrester or arrester group to be replaced is identified visually (red indicator flag).

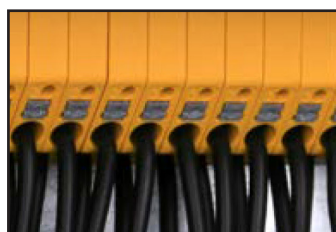
The status is reported to a higher-level control system via a floating break contact of the remote signaling unit.

The combination of the transmitter and receiver units into a single device minimizes the wiring effort required when installing the remote signaling unit. At the same time, there is no need for additional setup of the modules.

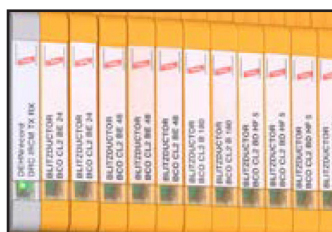
A defined fail-safe function (fail-open) disconnects the overloaded components (decoupling impedance, fine protection) from the signal circuit. However, the signal circuit itself remains active and is not interrupted. The system circuit remains available, and operation is maintained until the arrester is replaced. In this way, plants and systems can be operated safely and are highly available at all times.



Quickly tested – at a glance
Integrated indication for easy and fast maintenance



Connect = Protect
Push-in connection technology for simple and fast cable connection



Easy maintenance
Simple status message with monitoring unit for arrester groups

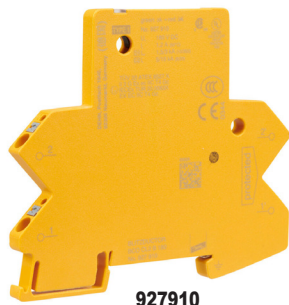


Maximum system availability
Approvals for use in intrinsically safe measuring circuits

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors



Yellow / Line SPDs



UL file # E156818, E508234 Displayed as BCO CL2
CSA file # 80066004 Displayed as BCO CL2
SIL up to SIL3 as of October 2019

DEHN BLITZDUCTORconnect Data and Signal Surge Protectors Selection Guide

Part Number	Price	Protection	SPD Class	Maximum Continuous Operating Voltage (DC) (U_c)	Nominal Current (I_n)	D1 Lightning Impulse Current (10/350 μ s) Per Line (I_{imp})	C2 Total Nominal Discharge Current (8/20 μ s) (I_n)	Series Resistance Per Line	Cut-Off Frequency Line-Line (fG)	Approvals	Drawing
927910	\$35.50	Two single lines for lightning equipotential bonding, as well as indirect earthing of shielded cables.	Type 1	180V	1.2 A	1.5 kA	10kA	0 Ω	150MHz	UL, CSA, ATEX, IECEx, CCC SIL	PDF
927924	\$63.50	Interface/signal 0-20 mA, 4-20 mA (also with HART). Two single lines sharing a common reference potential as well as unbalanced interfaces.	Type 1 (P2 per EN 61000-4-5)	33V	0.75 A	1.5 kA	10kA	1 Ω	3.4 MHz	UL, CSA, ATEX, IECEx, CCC SIL	PDF
927944	\$63.50	Interface/signal 4-20 mA (also with HART). One pair of unearthed balanced interfaces.	Type 1 (P2 per EN 61000-4-5)	36V	0.75 A	1.5 kA	10kA	1 Ω	5.8 MHz	UL, CSA, ATEX, IECEx, CCC SIL	PDF
927971	\$73.00	One pair of unearthed high-frequency bus systems as well as balanced interfaces	Type 1 (P2 per EN 61000-4-5)	8.5 V	0.75 A	1.5 kA	10kA	1 Ω	100MHz	UL, CSA, ATEX, IECEx, CCC SIL	PDF

DEHN BLITZDUCTORconnect Data and Signal Surge Protectors Accessories Selection Guide

Part Number	Price	Description	Input Voltage Range (DC) (U_{in})	Maximum Rated Current Consumption (I_{in})	Operating Temperature Range (T_v)	Approvals	Drawing
910710	\$96.00	DEHNrecord condition monitoring unit, DIN rail mounted set with integrated visual transmitter/receiver as well as visual reverse unit for monitoring the condition of BLITZDUCTORconnect arresters with LifeCheck. Visual status indication via LED group display combined with remote signaling (break contact).	6-35 VDC	≤ 10 mA	-30°C to 70°C [-22°F to 158°F]	UL, ATEX, IECEx	PDF

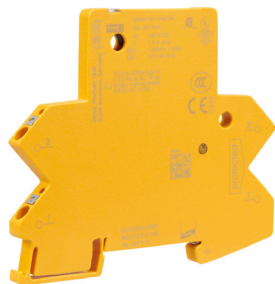


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DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors

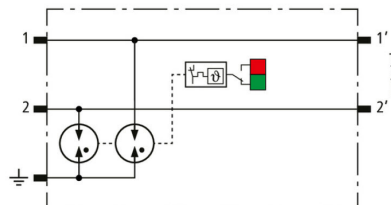


Yellow / Line SPDs



927910

Space-saving, compact lightning current arrester with a width of 6mm [0.24 in] and push-in connection technology with status indication for protecting two single lines for lightning equipotential bonding as well as indirect grounding of shielded cables.



DEHN BLITZDUCTORconnect 927910 Data and Signal Surge Protector Specifications

SPD Class	Type 1
Impulse Category	D1, C2, C3
Nominal Voltage (U_N)	180V
Max. Continuous Operating Voltage (DC) (U_c)	180V
Max. Continuous Operating Voltage (AC) (U_c)	127V
Nominal Current (I_L)	1.2 A
D1 Total Lightning Impulse Current (10/350 μs) (I_{imp})	3kA
D1 Lightning Impulse Current (10/350 μs) per line (I_{imp})	1.5 kA
C2 Total Nominal Discharge Current (8/20 μs) (I_n)	10kA
C2 Nominal Discharge Current (8/20 μs) per line (I_n)	5kA
Voltage Protection Line-Line for I_n C2 (U_p)	$\leq 1100V$
Voltage Protection Level Line-PG for I_n C2 (U_p)	$\leq 800V$
Voltage Protection Level Line-Line for 1 kV/μs C3 (U_p)	$\leq 950V$
Voltage Protection Level Line-PG for 1 kV/μs (U_p)	$\leq 700V$
Series Resistance Per Line	0 Ω
Cut-off Frequency Line-Line at 100 ohms (f_c)	150MHz
Capacitance Line-Line (C)	$\leq 10pF$
Capacitance Line-PG (C)	$\leq 13pF$
Operating Temperature Range (T_U)	-40°C to 80°C [-40°F to 176°F]
Operating State / Fault Indication	Green/red
Degree of Protection	IP20
For Mounting On	35mm DIN rails acc. to EN 60715
Connection (Input / Output)	Push-in / push-in
Cross-Sectional Area, Solid	0.2-2.5 mm ² (24 - 14 AWG)
Cross-Sectional Area, Flexible	0.2-2.5 mm ² (24 - 14 AWG)
Grounding Via	35mm DIN rails acc. to EN 60715
Enclosure Material	Polyamide PA 6.6
Color	Yellow
Test Standards	IEC 61643-21 / EN 61643-21
Approvals	UL, CSA, ATEX, IECEx, CCC, SIL UL file # E156818 Displayed as BCO CL2 CSA file # 80066004 Displayed as BCO CL2 SIL (up to SIL3) as of October 2019
ATEX Approvals	TÜV 20 ATEX 8527 X: II 3G Ex ec IIC T4 Gc
IECEx Approvals	IECEx TUR 20.0063X: Ex ec IIC T4 Gc
China Compulsory Certification	CCC no. 2021312304001192
Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG]	10kA (10x)
Voltage Protection Level Line-PG at 1 kV/μs C3 After Being Subjected to I_{max} (U_p)	$\leq 700V$
Weight	33g [1.16 oz]

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors

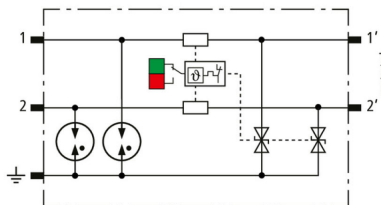


Yellow / Line SPDs



927924

Space-saving, compact combined arrester with a width of 6mm [0.24 in] and push-in connection technology with status indication for protecting two single lines sharing a common reference potential as well as unbalanced interfaces.



DEHN BLITZDUCTORconnect 927924 Data and Signal Surge Protector Specifications

SPD Class	Type 1 P1
Impulse Category	D1, C1, C2, C3, B2
Nominal Voltage (U_N)	24V
Max. Continuous Operating Voltage (DC) (U_C)	33V
Max. Continuous Operating Voltage (AC) (U_C)	23.3 V
Nominal Current (I_L)	0.75 A
D1 Total Lightning Impulse Current (10/350 μs) (I_{imp})	3kA
D1 Lightning Impulse Current (10/350 μs) per line (I_{imp})	1.5 kA
C2 Total Nominal Discharge Current (8/20 μs) (I_n)	10kA
C2 Nominal Discharge Current (8/20 μs) per line (I_n)	5kA
Voltage Protection Line-Line for I_n C2 (U_p)	$\leq 90V$
Voltage Protection Level Line-PG for I_n C2 (U_p)	$\leq 75V$
Voltage Protection Level Line-Line for I_n C1 (U_p)	$\leq 90V$
Voltage Protection Level Line-PG for I_n C1 (U_p)	$\leq 75V$
Voltage Protection Level Line-Line for 1kV/μs C3 (U_p)	$\leq 85V$
Voltage Protection Level Line-PG for 1kV/μs (U_p)	$\leq 45V$
Series Resistance Per Line	1 Ω
Cut-off Frequency Line-Line (f_c)	3.4 MHz
Capacitance Line-Line (C)	$\leq 1nF$
Capacitance Line-PG (C)	$\leq 2nF$
Operating Temperature Range (T_u)	-40°C to 80°C [-40°F to 176°F]
Operating State / Fault Indication	Green/red
Degree of Protection	IP20
For Mounting On	35mm DIN rails acc. to EN 60715
Connection (Input / Output)	Push-in / push-in
Cross-Sectional Area, Solid	0.2-2.5 mm ² (24 - 14 AWG)
Cross-Sectional Area, Flexible	0.2-2.5 mm ² (24 - 14 AWG)
Grounding Via	35mm DIN rails acc. to EN 60715
Enclosure Material	Polyamide PA 6.6
Color	Yellow
Test Standards	IEC 61643-21 / EN 61643-21
Approvals	UL, CSA, ATEX, IECEx, CCC, SIL UL file # E156818 Displayed as BCO CL2 CSA file # 80066004 Displayed as BCO CL2 SIL (up to SIL3) as of October 2019
ATEX Approvals	TÜV 20 ATEX 8527 X: II 3G Ex ec IIC T4 Gc
IECEx Approvals	IECEx TUR 20.0063X: Ex ec IIC T4 Gc
China Compulsory Certification	CCC no. 2021312304001192
Maximum Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG] (I_{max})	20kA
Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG]	10kA (10x)
Voltage Protection Level Line-PG at 1 kV/μs C3 After Being Subjected to I_{max} (U_p)	$\leq 45V$
Weight	33g [1.16 oz]

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors

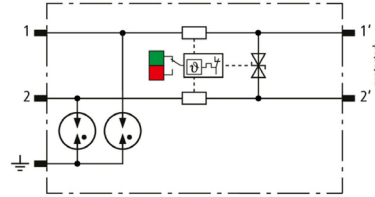


Yellow / Line SPDs



927944

Space-saving, compact combined arrester with a width of 6mm [0.24 in] and push-in connection technology with status indication for protecting one pair of ungrounded balanced interfaces.



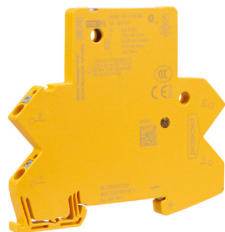
DEHN BLITZDUCTORconnect 927944 Data and Signal Surge Protector Specifications

SPD Class	Type 1 P2
Impulse Category	D1, C1, C2, C3, B2
Nominal Voltage (U_N)	24V
Max. Continuous Operating Voltage (DC) (U_C)	36V
Max. Continuous Operating Voltage (AC) (U_C)	25.4 V
Nominal Current at 70°C (I_L)	0.75 A
D1 Total Lightning Impulse Current (10/350 μs) (I_{imp})	3kA
D1 Lightning Impulse Current (10/350 μs) per line (I_{imp})	1.5 kA
C2 Total Nominal Discharge Current (8/20 μs) (I_n)	10kA
C2 Nominal Discharge Current (8/20 μs) per line (I_n)	5kA
Voltage Protection Line-Line for I_n C2 (U_p)	$\leq 57V$
Voltage Protection Level Line-PG for I_n C2 (U_p)	$\leq 600V$
Voltage Protection Level Line-Line for I_n C1 (U_p)	$\leq 57V$
Voltage Protection Level Line-PG for I_n C1 (U_p)	$\leq 600V$
Voltage Protection Level Line-Line for 1kV/μs C3 (U_p)	$\leq 46V$
Voltage Protection Level Line-PG for 1kV/μs (U_p)	$\leq 600V$
Series Resistance Per Line	1 Ω
Cut-off Frequency Line-Line (f_c)	5.8 MHz
Capacitance Line-Line (C)	≤ 1.5 nF
Capacitance Line-PG (C)	≤ 16 pF
Operating Temperature Range (T_o)	-40°C to 80°C [-40°F to 176°F]
Operating State / Fault Indication	Green/red
Degree of Protection	IP20
For Mounting On	35mm DIN rails acc. to EN 60715
Connection (Input / Output)	Push-in / push-in
Cross-Sectional Area, Solid	0.2-2.5 mm ² (24-14 AWG)
Cross-Sectional Area, Flexible	0.2-2.5 mm ² (24-14 AWG)
Grounding Via	35mm DIN rails acc. to EN 60715
Enclosure Material	Polyamide PA 6.6
Color	Yellow
Test Standards	IEC 61643-21 / EN 61643-21
Approvals	UL, CSA, ATEX, IECEx, CCC, SIL UL file # E156818 Displayed as BCO CL2 CSA file # 80066004 Displayed as BCO CL2 SIL (up to SIL3) as of October 2019
ATEX Approvals	TÜV 20 ATEX 8527 X: II 3G Ex ec IIC T4 Gc
IECEX Approvals	IECEX TUR 20.0063X: Ex ec IIC T4 Gc
China Compulsory Certification	CCC no. 2021312304001192
Maximum Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG] (I_{max})	20kA
Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG]	10kA (10x)
Voltage Protection Level Line-PG at 1 kV/μs C3 After Being Subjected to I_{max} (U_p)	$\leq 600V$
Weight	33g [1.16 oz]

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors

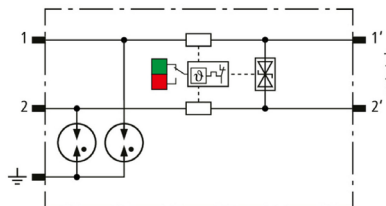


Yellow / Line SPDs



927971

Space-saving, compact combined arrester with a width of 6mm [0.24 in] and push-in connection technology with status indication for protecting one pair of ungrounded high-frequency bus systems as well as balanced interfaces.



DEHN BLITZDUCTORconnect 927971 Data and Signal Surge Protector Specifications

SPD Class	Type 1 P2
Impulse Category	D1, C1, C2, C3, B2
Nominal Voltage (U_N)	5V
Max. Continuous Operating Voltage (DC) (U_C)	8.5 V
Max. Continuous Operating Voltage (AC) (U_C)	6.0 V
Nominal Current at 70°C (I_N)	0.75 A
D1 Total Lightning Impulse Current (10/350 μs) (I_{imp})	3kA
D1 Lightning Impulse Current (10/350 μs) per line (I_{imp})	1.5 kA
C2 Total Nominal Discharge Current (8/20 μs) (I_N)	10kA
C2 Nominal Discharge Current (8/20 μs) per line (I_N)	5kA
Voltage Protection Line-Line for I_N C2 (U_p)	≤ 42 V
Voltage Protection Level Line-PG for I_N C2 (U_p)	≤ 600 V
Voltage Protection Level Line-Line for I_N C1 (U_p)	≤ 42 V
Voltage Protection Level Line-PG for I_N C1 (U_p)	≤ 600 V
Voltage Protection Level Line-Line for 1kV/μs C3 (U_p)	≤ 15 V
Voltage Protection Level Line-PG for 1kV/μs (U_p)	≤ 600 V
Series Resistance Per Line	1 Ω
Cut-off Frequency Line-Line (f_c)	100MHz
Capacitance Line-Line (C)	≤ 21 pF
Capacitance Line-PG (C)	≤ 15 pF
Operating Temperature Range (T_o)	-40°C to 80°C [-40°F to 176°F]
Operating State / Fault Indication	Green/red
Degree of Protection	IP20
For Mounting On	35mm DIN rails acc. to EN 60715
Connection (Input / Output)	Push-in / push-in
Cross-Sectional Area, Solid	0.2-2.5 mm ² (24-14 AWG)
Cross-Sectional Area, Flexible	0.2-2.5 mm ² (24-14 AWG)
Grounding Via	35mm DIN rails acc. to EN 60715
Enclosure Material	Polyamide PA 6.6
Color	Yellow
Test Standards	IEC 61643-21 / EN 61643-21
Approvals	UL, CSA, ATEX, IECEx, CCC, SIL UL file # E156818 Displayed as BCO CL2 CSA file # 80066004 Displayed as BCO CL2 SIL (up to SIL3) as of October 2019
ATEX Approvals	TÜV 20 ATEX 8527 X: II 3G Ex ec IIC T4 Gc
IECEX Approvals	IECEX TUR 20.0063X: Ex ec IIC T4 Gc
China Compulsory Certification	CCC no. 2021312304001192
Maximum Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG] (I_{max})	20kA
Discharge Current (8/20 μs) [1/2-PG], [1+2 - PG]	10kA (10x)
Voltage Protection Level Line-PG at 1 kV/μs C3 After Being Subjected to I_{max} (U_p)	≤ 600 V
Weight	33g [1.16 oz]

DEHN BLITZDUCTORconnect – Compact Data and Signal Surge Protectors

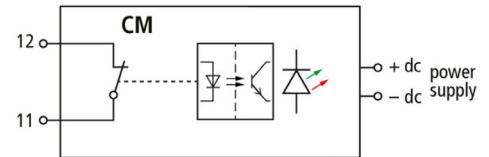


Yellow / Line SPDs



910710

Condition monitoring unit DEHNrecord, set for DIN rail mounted devices with integrated visual transmitter/receiver and visual reverse unit for monitoring the condition of BLITZDUCTORconnect arresters with LifeCheck. Visual status indication via LED group display in combination with remote signaling contact (break contact).



DEHN BLITZDUCTORconnect 910710 Surge Protector Monitoring System Specifications

Input Voltage Range (DC) (U_{IN})	6-35 VDC
Maximum Rated Current Consumption (I_{IN})	$\leq 10\text{mA}$
Distance Between Transmitter/Receiver and Reverse Unit (Max)	$\leq 305\text{mm}$ [12in]
Message: Replacing of SPD Recommended	LED, remote signaling contact (break contact)
Indicator	Two-color LED (green, red)
Type of Remote Signaling Contact	Break contact (NC)
Technical Data for Remote Signaling Contact	Contact resistance $< 2.5\Omega$; leakage current $< 1\mu\text{A}$
Switching Capacity (DC)	48V; 500mA, P_{max} 300mW
Test Cycle	Continuous
Operating Temperature Range (T_U)	-40°C to 80°C [-40°F to 176°F]
Degree of Protection	IP20
For Mounting On	35mm DIN rails acc. to EN 60715
Connection (Input / Output)	Push-in / push-in
Cross-Sectional Area, Solid	$0.2\text{-}2.5\text{ mm}^2$ (24-14 AWG)
Cross-Sectional Area, Flexible	$0.2\text{-}2.5\text{ mm}^2$ (24-14 AWG)
Enclosure Material	Polyamide PA 6.6
Color	Gray
Test Standards	EN 61010-1
Approvals	CSA, UL UL file # E508234 CSA file # 80066004 Displayed as BCO CL2
Package Includes	Transmitter-receiver unit / reverse unit
Weight	52g [1.83 oz]

